BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

December 20, 2012

Mr. Anthony Lopes, P.E.
Project Manager
New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 9
270 Michigan Avenue
Buffalo, New York 14203-2999

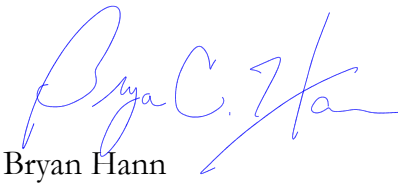
Re: Final Remedial Investigation Work Plan
154 South Ogden Street Site (BCP Site No. C915268)
Buffalo, New York

Dear Mr. Lopes:

On behalf of our client, 154 South Ogden, LLC, Benchmark Environmental Engineering & Science, PLLC has prepared the enclosed Remedial Investigation (RI) Work Plan, in accordance with the Department's related correspondence. A complete electronic copy of the Work Plan is included on the CD in Appendix F of the hard copy. In addition, one hard copy (with electronic version on CD) will be placed at the Lafayette Square and the East Clinton Branches of the Buffalo & Erie County Public Library system for public review.

Please do not hesitate to contact me with any questions.

Sincerely,
TurnKey Environmental Restoration, LLC



Bryan Hann
Project Manager

c: J. Neimeier (154 South Ogden, LLC)
M. Doster (NYSDEC – Region 9)
C. Slater (Slater Law)
T. Forbes (Benchmark)
B. Hann (Benchmark)

File: 0249-012-003

2558 Hamburg Turnpike, Suite 300 | Buffalo, NY 14218
phone: (716) 856-0599 | fax: (716) 856-0583

Remedial Investigation Work Plan

154 South Ogden Street Site
Buffalo, New York

December 2012 0249-012-003

Prepared For:

154 South Ogden, LLC

Prepared By:

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

2558 Hamburg Turnpike, Suite 300, Buffalo, New York 14218 | phone: (716) 856-0599 | fax: (716) 856-0583

REMEDIAL INVESTIGATION WORK PLAN

154 SOUTH OGDEN STREET SITE
BUFFALO, NEW YORK

December 2012 0249-012-003

Prepared for:

154 South Ogden, LLC

Prepared by:

Benchmark Environmental Engineering & Science, PLLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716) 856-0599

RI WORK PLAN

154 South Ogden Street Site
Buffalo, New York

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154 South Ogden Street Site
Buffalo, New York

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1.0 INTRODUCTION

This document presents the proposed scope of work and implementation procedures for completion of a Remedial Investigation (RI) at the 154 South Ogden Street Site, located in the City of Buffalo, Erie County , New York (Site; see Figures 1 and 2).

The Applicant, 154 South Ogden, LLC, acting as a Volunteer has elected to pursue cleanup and redevelopment of the Site under the New York State Brownfield Cleanup Program (BCP), and has applied to the BCP with the intention to enter into a Brownfield Cleanup Agreement (BCA) with the New York State Department of Environmental Conservation (NYSDEC).

The RI will be completed by Benchmark Environmental Engineering and Science, PLLC (Benchmark), in association with TurnKey Environmental Restoration, LLC (TurnKey), on behalf of 154 South Ogden, LLC. The work will be completed in general accordance with NYSDEC DER-10 guidelines.

1.1 Site Background

The BCP Site is comprised of an approximate 21 acre portion of a greater 26.6 acre parcel located on South Ogden Street in the City of Buffalo, New York (see Figures 1 and 2). The Site is currently vacant, and as evidenced by the USDA Erie County Soil Map, the majority of the Site was historically utilized as a "dump." Previous environmental investigations completed at the Site have revealed evidence of elevated photoionization detector (PID) readings, the presence of fill material of an industrial nature, elevated levels of volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs), primarily polycyclic aromatic hydrocarbons (PAHs), and heavy metals, some exceeding 6NYCRR NYSDEC Part 375 Industrial SCOs. A NYSDEC Spill file (No. 1112887) is currently open for the Site. Details of the previous investigations are presented in Section 2.8 below.

1.2 Project Objectives

For sites entering the BCP at the point of investigation, NYSDEC requires completion of a RI. The primary objectives of the RI are to:

- Collect additional soil/fill and groundwater samples, under appropriate quality assurance/quality control criteria, to better delineate the nature and extent of contamination;

- Collect sufficient data to evaluate the actual and potential threats to the public health and the environment; and,

- Collect the data necessary to evaluate the remedial action alternatives.

1.3 Project Organization and Responsibilities

The Applicant, 154 South Ogden, LLC, has applied for acceptance into the New York State BCP as a Volunteer per ECL§27-1405. Benchmark, in association with TurnKey, will manage the brownfield investigation and cleanup on behalf of 154 South Ogden, LLC. The NYSDEC Division of Environmental Remediation (Region 9), in consultation with the New York State Department of Health (NYSDOH), will monitor the investigation and remedial actions to verify that the work is performed in accordance with the Brownfield Cleanup Agreement (BCA), the approved work plans, and NYSDEC DER-10 guidance (May 2010).

Benchmark field personnel and key subcontractors for this project have not been determined at this time. Once pricing is secured, subcontract agreements are in place, and a field schedule determined, resumes for the selected project team will be provided to the Department, if requested. Benchmark's Project Manager's résumé, however, has been included in Appendix A. The table below presents the planned project team.

Company	Role	Name	Contact Information
Benchmark EES	Project Manager	Bryan Hann	(716) 856-0599
Benchmark EES	Field Personnel	TBD	(716) 856-0599
154 South Ogden, LLC	Site Contact	James Neimeier	(716) 826-7213
TBD	Analytical Testing	TBD	TBD
TBD	Drilling Services	TBD	TBD
TBD	Data Usability Summary Report	TBD	TBD

2.0 SITE DESCRIPTION

2.1 General

The BCP Site, referenced throughout this document as the "Site" or "BCP Site," is defined as an approximate 21 acre portion of a greater 26.6 acre parcel located in the City of Buffalo, Erie County, New York. The Site is currently vacant, and as evidenced by the USDA Erie County Soil Map, the majority of the Site was historically utilized as a "dump." Historic filling at the Site is likely attributed to the relocation of the former Buffalo River channel. The existing Buffalo River and the approximate historic Buffalo River channel (circa 1927) are shown on Figure 2 for comparison. Currently, the Site is bound by South Ogden to the east, the Buffalo River to the north, railroad and utility corridor to the west/southwest and vacant land with Mineral Springs beyond to the south (see Figure 2).

2.2 Site Topography and Drainage

The surface of the Site is generally flat lying with several undulating areas of apparent historical dumping operations. Multiple debris piles are present on-Site. The Site is currently vacant, and precipitation would be expected to collect in depression areas of the Site prior to infiltration. Groundwater flow is likely in a north northwest direction toward the Buffalo River.

2.3 Geology and Hydrogeology

2.3.1 Overburden

The U.S. Department of Agriculture Soil Conservation Service soil survey map of Erie County describes the general soil type at the Site is described as Dump material (Dp), Smoothed Undorthents (Uc), and Wayland Silt Loam (Wd). Based on the historical use of the site, the geology of the Site will be investigated as part of the RI activities.

2.3.2 Bedrock

Based on the bedrock geologic map of Erie County, the Site is situated over the Onondaga Formation of the Middle Devonian Series. The Onondaga Formation is comprised of a varying texture from coarse to very finely crystalline with a dark gray to tan

color and chert and fossils within. The unit has an approximate thickness of 110 to 160 feet. The depth to and type of bedrock below the Site has not been determined.

2.3.3 Hydrogeology

The Site is located in the Erie-Niagara River Basin. In the Erie-Niagara Basin, the major areas of groundwater are within coarser overburden deposits and limestone and shale bedrock. Regional groundwater appears to flow towards the Buffalo River and Lake Erie. Localized on-Site groundwater flow will be confirmed during the RI.

2.4 Climate

Western New York has a cold continental climate, with moisture from Lake Erie causing increased precipitation. Average annual precipitation is reportedly 40.5 inches and snowfall is 93.6 inches to the northern part of the watershed with over 150 inches per year falling on the southern portion of the watershed. Average monthly temperatures range from 24.5 degrees Fahrenheit in January to 70.8 degrees Fahrenheit in July. The ground and lakes typically remain frozen from December to March. Winds are generally from the southwest (240 degrees) with a mean velocity of 10 miles per hour (Buffalo Airport, 1999).

2.5 Population and Land Use

The City of Buffalo, encompassing 40.38 square miles, has a population of 261,310 (2010 US Census Bureau). The Site is located within Census Tract 11, and is located in a mixed commercial, vacant, and residential area of the City of Buffalo. Residential areas are located directly across South Ogden Street to the east, and across the Buffalo River to the north.

2.6 Utilities and Groundwater Use

The subject property has access to all major public and private utilities, including potable water (Buffalo Water Authority), sanitary and storm sewers (Buffalo Sewer Authority), electric (National Grid), and natural gas (National Fuel Gas).

Currently, there are no known deed restrictions on the use of groundwater at the Site; however, there are no groundwater supply wells on the property. Regionally, groundwater in the area has not been developed for industrial, agriculture, or public supply purposes. Municipal potable water service is provided on-site and off-site.

2.7 Wetlands and Floodplains

There are no State or Federal wetlands located on-Site. The northern portion of the greater parcel is located within the 100-yr floodplain. The Buffalo River is located adjacent to the greater parcel along the northern boundary. A NYSDEC regulated freshwater wetland (BU-13) is located approximately 2 miles to the southeast of the site. Referenced wetlands and floodplains are shown on Figure 3.

2.8 Previous Investigations

A summary of the investigations that have occurred at the Site are presented below. The reports are included electronically in Appendix B.

2.8.1 March 2012 - Supplemental Phase II Site Investigation Report

Benchmark completed a Supplemental Phase II Site Investigation on the subject property in March 2012. The investigation included the excavation of 20 test pits, and the installation of three (3) temporary groundwater monitoring wells. Soil/fill samples collected from ten (10) of those test pits were analyzed for VOCs, SVOCs, metals, and PCBs. The findings of the investigation identified that the historic use of the Site as a "dump" has impacted the on-Site soil/fill with SVOCs, primarily polycyclic aromatic hydrocarbons (PAHs), and heavy metals. Elevated VOCs above the NYSDEC GWQS/GV were detected in two of the three temporary well locations. No PCBs were detected in on-Site soil/fill. During the investigation, petroleum-impacted soils were encountered which necessitated contacting the NYSDEC Spill Hotline, and subsequent opening of Spill File No. 1112887 for the Site.

2.8.2 December 2011 - Geotechnical Report and Test Pit Investigation

EmpireGeo Services, Inc. completed a subsurface geotechnical report and test investigation on Site. The geotechnical investigation included the advancement of six (6) geotechnical borings, and ten (10) soil borings, and 22 test pits. The three phase investigation noted fill material, some of an industrial nature ranging in depth from 3.5 to 23.5 feet. The report noted elevated PID readings, petroleum-like odors, and black sandy material. Analytical results from two soil/fill samples indicated the presence of heavy metals exceeding Part 375 Industrial SCOs, as well as elevated VOCs and SVOCs.

2.8.3 July 2011 – Phase I Environmental Site Assessment

LCS, Inc. completed a Preliminary Environmental Site Assessment for the Subject property. The Phase I ESA identified recognized environmental conditions (RECs), which included:

- Railroad tracks located adjacent to and west of the Site
- Multiple debris piles dumped on-Site

2.9 Primary Constituents of Potential Concern (COPCs)

Based on findings to date, the Constituents of Potential Concern (COPCs) are presented by media below:

- ***Surface Soil/Fill:*** SVOCs, metals
- ***Subsurface Soil/Fill:*** VOCs, SVOCs, metals
- ***Groundwater:*** VOCs, SVOCs, metals

3.0 INVESTIGATION SCOPE OF WORK

The RI scope of work is focused on defining the nature and extent of contamination within the BCP Site boundary, identifying the source of contamination, defining chemical constituent migration pathways, qualitatively assessing human health and ecological risks (if necessary), and obtaining data of sufficient quantity and quality to perform the alternatives analysis report. Data submittals will be provided to the NYSDEC in accordance with the most current electronic data deliverables (EDD) protocols. During all field screening and community air monitoring activities performed during this investigation, a PID equipped with an 11.7 eV lamp will be utilized to assure all possible VOCs are accurately screened.

3.1 Pre-Investigation Activities

3.1.1 Utility Clearance

Prior to any intrusive activities, Dig Safely New York (Call 811 or similar) will be contacted by the site contractor a minimum of three business days in advance of the work and informed of the intent to perform intrusive work at the Site.

3.1.2 Site Inspection/Walkover

The purpose of the Site inspection/walkover is to determine the appropriate waste characterization or re-use sampling protocols based on potential disposal/recycling/re-use requirements for the noted debris piles located on-Site. Final determination of suitability for on-Site reuse or off-Site disposal/recycling facilities will be completed during future remedial work.

3.2 Soil/Fill Investigation

A soil/fill investigation will be completed across the BCP Site to assess potential impacts related to the historic use of the Site. The soil/fill investigation will include the collection of surface (0 to 6 inches below ground surface), subsurface (2 to 16 feet below ground surface or fbgs), and near-surface (0 to 2 fbgs) soil/fill samples. The proposed RI sample locations are identified and presented on Figure 4. A summary of the sampling program is included on Table 1. All soil/fill samples described below will be collected using dedicated stainless steel sampling tools. Representative soil/fill samples will be placed in pre-cleaned laboratory provided sample bottles, cooled to 4ºC in the field, and transported under

chain-of-custody command to a NYSDOH Environmental Laboratory Approval Program (ELAP)-certified analytical laboratory for analysis as indicated in Table 1.

Based on the planned redevelopment of the Site as a school, an enhanced focus on the area slated for construction of the new building is planned (see Figure 4). Additional surface, sub-surface, and/or near-surface soil/fill locations, beyond those discussed in the following sections, showing evidence of impact (e.g., visual/olfactory, elevated PID, staining, stressed vegetation, etc.) may be added to the sampling program upon consultation with the Project Manager and the Department. Upon consensus, any such location(s) determined to be impacted during the investigation will be analyzed for an agreed upon list of parameters depending the nature of the observed impact (e.g., oily stained areas will be analyzed for TCL plus STARS List VOCs, TCL SVOCs, and PCBs).

3.2.1 Surface Soil/Fill

Eight (8) surface soil/fill samples will be collected during the RI from the upper 0 to 6-inch depth across the BCP Site to supplement the seven (7) previously collected surface soil/fill samples (during the Phase II Investigation) for a total of 15 surface soil/fill samples. RI surface soil/fill samples will be analyzed for Target Compound List (TCL) SVOCs and Target Analyte List (TAL) metals, PCBs, pesticides and herbicides (see Table 1).

3.2.2 Subsurface Soil/Fill

A total of 30 subsurface (2 to 16 fbgs) soil/fill exploratory boring locations will be advanced during the RI across the BCP Site. In addition, at ten of these locations, near surface (0 to 2 fbgs) soil/fill samples will be collected as described in the next section. The 10 near surface plus the 30 subsurface locations will be used to supplement the 20 previously completed test pits (during the Phase II Investigation) for a total of 60 subsurface investigation locations (see Figure 4). Drill cuttings will be placed back into each borehole unless gross contamination (i.e., visible product) is encountered, in which case they will be placed in sealed NYSDOT-approved drums and labeled for subsequent characterization and disposal (see Section 3.6).

Each boring will be advanced from existing grade to native soils (approximately 12 to 16 fbgs) or refusal, whichever occurs first, utilizing 4.25-inch I.D. hollow stem augers (HSA) and continuous split-spoon sampling drilling methods. Recovered samples will be described in the field by qualified Benchmark personnel by visual-manual observation in accordance

with ASTM Method D2488, Standard Practice for Description and Identification of Soils (Visual-Manual Procedure), scanned for total volatile organic vapors with a calibrated MiniRAE 2000 PID equipped with a 11.7 eV lamp (or equivalent), and characterized for impacts via visual and/or olfactory observations in approximate two-foot depth intervals. PID screening not only ensures the health and safety of personnel at the Site, results will also be used to identify potentially impacted soil/fill samples for laboratory analysis.

Upon reaching the completion of each boring, field results including PID, visual, and olfactory results will be reviewed and recorded. The sample interval identified as the most impacted (i.e., greatest PID scan result and/or evidence of visual/olfactory impact) will be selected for analysis of TCL plus STARS VOCs, TCL SVOCs, TAL metals, PCBs, pesticides, and herbicides. If differentiable impacts are noted across separate horizons within a particular boring, additional samples may be collected from the material to characterize the impacts in that location in consultation with the Project Manager and the Department as previously discussed. In the event that either the impacts are ubiquitous from grade to final depth or no impacts were identified, the native soils directly above water table will be selected for analysis. If the impacts are ubiquitous from grade to final depth or no impacts were identified and groundwater is not encountered at a particular boring location, the sample interval will be selected based on the discretion of the field personnel and in consultation with the Project Manager and the Department.

At each boring location, one subsurface soil/fill sample will be collected and analyzed for TCL plus STARS VOCs, TCL SVOCs, TAL metals, PCBs, pesticides, and herbicides. In general, samples selected for analysis will be targeted toward depth intervals showing visual/olfactory evidence of impacts and/or elevated PID readings above 5 ppm in excess of background (see Table 1).

3.2.3 Near-Surface Soil/Fill

Ten of the planned RI boring locations described in the previous section will also be utilized to evaluate the near-surface interval (i.e., 0 to 2 fbgs) across the BCP Site. Ten near-surface soil/fill samples will be collected and analyzed for TCL plus STARS VOCs, TCL SVOCs, TAL Metals, PCBs, pesticides, and herbicides. Similar to the soil/fill sampling protocol previously discussed, near-surface soil/fill will target those locations with visual/olfactory evidence of impacts and/or elevated PID readings above 5 ppm in excess of background (see Table 1).

3.3 Groundwater Investigation

Five (5) additional borings will be advanced across the BCP Site and completed as groundwater monitoring wells to assess groundwater quality and flow direction. The proposed two (2) up-gradient and three (3) down-gradient groundwater monitoring well locations are identified on Figure 4. Monitoring well installation, well development, and groundwater sample collection details are discussed in the following sections.

3.3.1 Monitoring Well Installation

Subsequent to boring completion, five groundwater monitoring wells will be installed within the BCP Site. The location of the new groundwater wells will be based on field observations recorded during the soil/fill boring investigation. Specifically, well locations will be adjusted, if necessary, based on the presence of elevated PID readings or other observed impacts following consultation with the Project Manager and NYSDEC. In the absence of such observations, the new wells will be installed at the approximate locations shown on Figure 4.

The five boring locations will be advanced into the unconsolidated overburden material (soil/fill and/or native soils) as described in Section 3.2.2 to a depth of approximately 20 fbgs with a target minimum of 5 feet below the first encountered groundwater. Recovered samples will be visually described and scanned for total volatile organic vapors with a PID as previously described.

Subsequent to boring completion, each monitoring well will be constructed of 2-inch I.D. flush-joint Schedule 40 PVC solid riser and machine slotted screen (0.010-inch slot size). The monitoring well screen will be approximately 5 feet in length. The well screen and attached riser will be placed within the borehole and the filter sand pack installed within the borehole annulus to a level of 2- to 3-feet above the top of the well screen. A bentonite seal 2- to 3-feet thick will be installed immediately above the sand layer. The bentonite seal will be constructed with 3/8-inch bentonite pellets or medium bentonite chips and allowed to hydrate sufficiently. Due to the shallow nature of these wells, bentonite chips will be used in lieu of cement/bentonite grout to complete well construction to within one-foot below ground surface.

The top of the well riser pipe will extend approximately 3 feet above grade and will be fitted with a lockable J-plug and protected by a vented, 4-inch diameter protective steel casing. The steel casing will be installed to a depth of approximately 2-fbgs and anchored in

a 2-foot by 2-foot concrete surface pad. Each steel protective casing will be fitted with a locking cap, keyed alike lock, and labeled with permanent markings for identification. The concrete surface pad will be placed around the protective steel casing to allow surface water to drain away from the well.

Drill cuttings will be disposed onsite unless gross contamination (i.e., visible product) is encountered, in which case they will be placed in sealed NYSDOT-approved drums and labeled for subsequent characterization and disposal (see Section 3.6).

3.3.2 Well Development

After installation, but not within 24 hours, newly installed monitoring wells will be developed in accordance with Benchmark and NYSDEC protocols. Well development may occur sooner as cement/bentonite grout will not be used in well construction and as long as groundwater levels are near or approaching static condition. Development of the monitoring wells will be accomplished with dedicated disposable polyethylene bailers via surge and purge methodology. Field parameters including pH, temperature, turbidity, dissolved oxygen (DO), oxidation-reduction potential (ORP) and specific conductance will be measured periodically (i.e., every well volume or as necessary) during development. Field measurements will continue until they became relatively stable. Stability will be defined as variation between measurements of approximately 10 percent or less with no overall upward or downward trend in the measurements. A minimum of three well volumes will be evacuated from each monitoring well. Development water from the monitoring wells will be discharged to the ground surface in the vicinity of the monitoring well being developed. If light non-aqueous phase liquid (LNAPL), dense non-aqueous phase liquid (DNAPL), odors, or sheen are encountered during well development water will be containerized in NYSDOT-approved drums and labeled per monitoring well location. Based on the RI groundwater analytical results, it will be determined, in consultation with the Department, if the containerized development water is acceptable for surface discharge, or requires subsequent on-Site treatment and/or off-Site disposal (see Section 3.6).

3.3.3 Groundwater Sample Collection

Prior to sample collection, static water levels will be measured and recorded from all on-Site monitoring wells to facilitate the preparation of a Site-wide isopotential map. Following water level measurement, field personnel will purge and sample monitoring wells

using a submersible pump with dedicated pump tubing following low-flow/minimal drawdown purge and sample collection procedures. In the event of pump failure or the saturated unit does not permit the proper implementation of low-flow sampling, a dedicated polyethylene bailer will be used to purge and sample the well. Prior to sample collection via low-flow methodology, groundwater will be evacuated from each well at a low-flow rate (typically less than 0.1 L/min) while maintaining a generally consistent water level. Field measurements for pH, temperature, turbidity, DO, ORP, specific conductance and water level, as well as visual and olfactory field observations will be periodically recorded and monitored for stabilization. Low-flow purging will be considered complete when pH, specific conductivity, DO, ORP, and temperature stabilize and when turbidity measurements fall below 50 Nephelometric Turbidity Units (NTU), or become stable above 50 NTU regardless of volume purged. Purging via disposable bailer, if necessary, will be considered complete following the removal of three well volumes and field parameter stabilization or to dryness, whichever occurs first. In general, stability is defined as variation between field measurements of 10 percent or less and no overall upward or downward trend in the measurements. Upon stabilization of field parameters, groundwater samples will be collected and analyzed as discussed below.

Sample collection methods that will be implemented during the RI include:

- **Submersible Pump with Dedicated Pump Tubing**

  All monitoring wells will be purged and sampled using a non-dedicated submersible pump and dedicated pump tubing following low-flow (minimal drawdown) purge and sample collection procedures, as described above. Non-dedicated pumps will require decontamination prior to use at each well location and the collection of an equipment blank.

- **Polyethylene Disposable Bailer**

  Wells of any depth (up to 100 fbgs) may be purged and sampled using a polyethylene disposable bailer via direct grab. In general, a bottom filling dedicated polyethylene bailer is attached to a length of dedicated hollow-braid polypropylene rope and lowered into the well smoothly and slowly as not to agitate the groundwater or damage the well. Purging continues until a predetermined volume of water has been removed (typically three well volumes) or to dryness. Measurements for pH, temperature, specific conductance, dissolved oxygen, and turbidity are recorded following removal of

each well volume. The well is purged until the readings for indicator parameters stabilize or the well is purged to dryness.

Prior to, and immediately following collection of groundwater samples, field measurements for pH, specific conductance, temperature, DO, ORP, turbidity and water level, as well as visual and olfactory field observations will be recorded. All collected groundwater samples will be placed in pre-cleaned, pre-preserved laboratory provided sample bottles, cooled to 4°C in the field, and transported under chain-of-custody command to a NYSDOH Environmental Laboratory Approval Program (ELAP)-certified analytical laboratory for analysis as indicated in Table 1.

3.3.4 Groundwater Sample Analyses

A total of five (5) groundwater samples will be collected and analyzed for TCL plus NYSDEC STARS list VOCs, TCL SVOCs, TAL Total Metals, PCBs, pesticides and herbicides in accordance with USEPA SW-846 methodology with equivalent NYSDEC Category B deliverables to allow for independent third-party data usability assessment. In the event groundwater sample turbidity levels exceed 50 NTUs, an additional groundwater sample will be collected and field filtered (or filtered in the laboratory) for TAL Dissolved Metals analysis. Based on the groundwater results, the need for additional monitoring wells will be evaluated and discussed with the Department.

3.3.5 Groundwater Flow Evaluation

Static depth to groundwater measurements will be obtained from the newly installed RI monitoring wells and groundwater elevation data will be calculated. Groundwater elevation data will be used to develop a Site-wide groundwater isopotential map, which will indicate the general direction of groundwater flow. Groundwater elevations will be relative to an arbitrary and Site-specific vertical datum and benchmark (e.g., fire hydrant). A well construction summary table will be prepared and include top of riser and grade elevations as well as well construction depths (elevations) and materials for each newly installed well.

3.4 Soil Vapor Assessment

If initial RI subsurface soil and groundwater data indicates that VOCs may cause a soil vapor concern within future buildings, Benchmark will discuss with NYSDEC and NYSDOH whether a soil vapor assessment is necessary.

3.5 Field Specific Quality Assurance/Quality Control Sampling

In addition to the surface soil/fill, subsurface soil/fill and groundwater samples described above, field-specific quality assurance/quality control (QA/QC) samples will be collected and analyzed to ensure the reliability of the generated data as described in the QAPP (see Section 4) and to support the required third-party data usability assessment effort. Site-specific QA/QC samples will include matrix spikes, matrix spike duplicates, blind duplicates, trip blanks, and equipment blanks.

3.6 Decontamination & Investigation-Derived Waste Management

Every attempt will be made to utilize dedicated sampling equipment during the RI, however if non-dedicated equipment is required and/or used, the equipment will be decontaminated, at a minimum, with a non-phosphate detergent (i.e., Alconox®) and potable water mixture, rinsed with distilled water, and air-dried before each use in accordance with Benchmark's field operating procedures presented in Appendix C. All decontaminated sampling equipment will be kept in a clean environment prior to sample collection. Heavy equipment, such as an excavator (if used) and drilling tools, will be decontaminated via high-pressure steam cleaning on a temporary decontamination pad between grab sample locations and composite groups (i.e., test pits, borings, etc.), as necessary.

RI generated drilling spoils, groundwater, or decontamination rinse water not exhibiting gross contamination (i.e., visible product, odor, sheen, etc.) will be either returned to the borehole from which it was removed (soil/fill) or discharged to the ground surface (groundwater and rinse water). Investigative-Derived Waste (IDW) or those materials exhibiting gross contamination will be placed in sealed NYSDOT-approved drums and labeled for subsequent characterization and disposal. All generated IDW drums will be labeled alpha-numerically with regard to contents, origin, and date of generation using a paint stick marker on two sides and the top of each drum. Characterization analytical results of containerized IDW material will be used to determine if spoils can be returned to the ground surface, utilized on-Site, or require treatment and/or off-Site disposal. Drums will be securely staged on-site pending characterization analyses and remedial measures assessment. Field personnel will coordinate the on-site handling and temporary storage of IDW drums, including transportation, characterization sampling, and offsite disposal arrangements, as necessary.

Discarded personal protective equipment (PPE) (i.e., latex gloves, Tyvek, paper towels, etc.) and disposable sampling equipment (i.e., bailers or stainless steel spoons) will be placed in sealed plastic garbage bags and disposed of as municipal solid waste.

3.7 Site Mapping & Survey

A Site map will be developed during the field investigation. All sample locations and relevant Site features will be located on the map. Benchmark will employ a handheld Trimble GeoXH handheld GPS unit to identify the locations of all surface soil/fill, boring, and newly installed well locations relative to State planar grid coordinates. Additional geospatial data may be collected related to debris piles, structure locations, and/or subsurface structures, as necessary. Monitoring well elevations will be measured by Benchmark's surveyor utilizing an arbitrary Site-specific vertical datum and benchmark (e.g., fire hydrant). Site maps will be provided with the RI report.

3.8 Documentation

All investigation field activities will be documented in a Project Field Book and/or handheld Rugged Reader® PDA. This logbook/PDA will provide a record of activities conducted at the Site. All entries will be signed and dated at the end of each day of fieldwork (or as produced) by the Field Team Leader. Field notes will include, at a minimum, the following: date and time of all entries, names of all personnel on site, weather conditions (temperature, precipitation, etc.), location of activity, and description of activity. Sampling activities will be logged and photographed as necessary to document the activities at the site. Field personnel will, at a minimum, complete the following standard field forms:

- Chain of Custody Form (per selected laboratory)
- Equipment Calibration Log
- Field Activity Daily Log (FADLs)
- Field Borehole/Geoprobe/Monitoring Well Log
- Groundwater Field Form
- Investigative-Derived Waste Container Log (if necessary)
- Photographic Log
- Real-Time Air Monitoring Log
- Tailgate Safety Meeting Form

- Test Pit Excavation Log
- Problem Identification Report (as necessary)
- Corrective Measures Report

Examples of the field forms are provided in Appendix E.

4.0 QUALITY ASSURANCE PROJECT PLAN

A Quality Assurance Project Plan (QAPP) has been prepared in support of the RI activities. The QAPP dictates implementation of the investigation tasks delineated in this Work Plan. A sampling and analysis plan identifying methods for sample collection, decontamination, handling, and shipping, is provided below.

The QAPP will assure the accuracy and precision of data collection during the Site characterization and data interpretation periods. The QAPP identifies procedures for sample collection to mitigate the potential for cross-contamination, as well as analytical requirements necessary to allow for independent data validation. The QAPP has been prepared in accordance with USEPA's Requirements for Quality Assurance Project Plans for Environmental Data Operations; the EPA Region II CERCLA Quality Assurance Manual, and NYSDEC's DER-10 Technical Guidance for Site Investigation and Remediation (May 2010).

Field team personnel will collect environmental samples in accordance with the rationale and protocols described in the QAPP. USEPA and NYSDEC-approved sample collection and handling techniques will be used. RI samples for chemical analysis will be analyzed in accordance with USEPA SW-846 methodology with an equivalent Category B deliverable package to meet the definitive-level data requirements. RI analytical results will be evaluated by a third-party data validation expert in accordance with provisions described in the QAPP. Data submittals will be provided to the NYSDEC in accordance with the electronic data deliverables (EDD) protocols.

4.1 Scope of the QAPP

This QAPP was prepared to provide quality assurance (QA) guidelines to be implemented during the RI activities. This document may be modified for subsequent phases of investigative work, as necessary. The QAPP provides:

- A means to communicate to the persons executing the various activities exactly what is to be done, by whom, and when.
- A culmination to the planning process that ensures that the program includes provisions for obtaining quality data (e.g., suitable methods of field operations).

- A historical record that documents the investigation in terms of the methods used, calibration standards, and frequencies planned, and auditing planned.
- A document that can be used by the Project Manager's and QA Officer to assess if the activities planned are being implemented and their importance for accomplishing the goal of quality data.
- A plan to document and track project data and results.
- Detailed descriptions of the data documentation materials and procedures, project files, and tabular and graphical reports.

The QAPP is primarily concerned with the quality assurance and quality control aspects of the procedures involved in the collection, preservation, packaging, and transportation of samples; field testing; record keeping; data management; chain-of-custody procedures; laboratory analyses; and other necessary matters to assure that the investigation activities, once completed, will yield data whose integrity can be defended.

QA refers to the conduct of all planned and systematic actions necessary to perform satisfactorily all task-specific activities and to provide information and data confidence as a result of such activities. The QA for task-specific activities includes the development of procedures, auditing, monitoring, and surveillance of the performance.

Quality Control (QC) refers to the activity performed to determine if the work activities conform to the requirements. This includes activities such as inspections of the work activities in the field (e.g., verification that the items and materials installed conform to applicable codes and design specifications). QA is an overview monitoring of the performance of QC activities through audits rather than first time inspections.

4.2 QAPP Organization and Responsibility

The principal organizations involved in verifying achievement of data collection goals for the 154 South Ogden Street Site include: the NYSDEC, NYSDOH, Applicant, Benchmark (Volunteer's Consultant), the drilling subcontractor(s), the independent environmental laboratory, and the independent third party data validator. Roles, responsibilities, and required qualifications of these organizations are discussed in the following subsections. Resumes are included in Appendix A.

4.2.1 NYSDEC and NYSDOH

It is the responsibility of the NYSDEC, in conjunction with NYSDOH, to review the RI/AAR Work Plan and supporting documents, for completeness and conformance with the site-specific cleanup objectives and to make a decision to accept or reject these documents based on this review. The NYSDEC also has the responsibility and authority to review and approve all QA documentation collected during brownfield cleanup construction and to confirm that the QA Plan was followed.

4.2.2 Applicant

The Applicant (154 South Ogden, LLC) will be responsible for complying with the QA requirements as specified herein and for monitoring and controlling the quality of the Brownfield cleanup construction either directly or through their designated environmental consultant and/or legal counsel. The Applicant will also have the authority to select Remedial Action Contractor(s) to assist them in fulfilling these responsibilities. The designated Project Manager is responsible for implementing the project, and has the authority to commit the resources necessary to meet project objectives and requirements.

4.2.3 Benchmark Environmental Engineering & Science, PLLC

Benchmark Environmental Engineering & Science, PLLC (Benchmark) in association with TurnKey Environmental Restoration, LLC (TurnKey), are the prime engineering and scientific consultants, respectively, on this project and are responsible for the implementation of the RI Work Plan, including, but not limited to, field operations, laboratory testing, data management, data analysis and reporting. Any one member of Benchmark's or TurnKey's staff may fill more than one of the identified project positions (e.g., field team leader and site safety and health officer). The various quality assurances, field, laboratory, and management responsibilities of key project personnel are defined below.

- *Benchmark/TurnKey Project Manager (PM):* *Thomas Forbes/ Bryan Hann*

  The Benchmark/TurnKey PM has the responsibility for ensuring that the project meets the Work Plan objectives. The PM will report directly to the

Applicants Project Coordinator and the NYSDEC/NYSDOH Project contacts, and is responsible for technical and project oversight. The PM will:

- Define project objectives and develop a detailed work plan schedule.
- Establish project policy and procedures to address the specific needs of the project as a whole, as well as the objectives of each task.
- Acquire and apply technical and corporate resources as needed to assure performance within budget and schedule constraints.
- Develop and meet ongoing project and/or task staffing requirements, including mechanisms to review and evaluate each task product.
- Review the work performed on each task to assure its quality, responsiveness, and timeliness.
- Review and analyze overall task performance with respect to planned requirements and authorizations.
- Review and approve all deliverables before their submission to NYSDEC.
- Develop and meet ongoing project and/or task staffing requirements, including mechanisms to review and evaluate each task product.
- Ultimately be responsible for the preparation and quality of interim and final reports.
- Represent the project team at meetings.

- *Benchmark/TurnKey FTL/SSHO:* *Bryan Hann*

The Field Team Leader (FTL) has the responsibility for implementation of specific project tasks identified at the Site, and is responsible for the supervision of project field personnel, subconsultants, and subcontractors. The FTL reports directly to the Project Manager. The FTL will:

- Define daily work activities.
- Orient field staff concerning the project's special considerations.
- Monitor and direct subcontractor personnel.
- Review the work performed on each task to ensure its quality, responsiveness, and timeliness.
- Assure that field activities, including sample collection and handling, are carried out in accordance with this QAPP.

For this project the FTL will also serve as the Site Safety and Health Officer (SSHO). As such, he is responsible for implementing the procedures and required components of the Site Health and Safety Plan (HASP), determining levels of protection needed during field tasks, controlling site entry/exit, briefing the field team and subcontractors on site-specific health and safety issues, and all other responsibilities as identified in the HASP.

4.3 Quality Assurance (QA) Responsibilities

The QA Officer will have direct access to corporate executive staff as necessary, to resolve any QA dispute, and is responsible for auditing the implementation of the QA program in conformance with the demands of specific investigations and Benchmark policies, and NYSDEC requirements. The QA Officer has sufficient authority to stop work on the investigation as deemed necessary in the event of serious QA issues.

- *Benchmark/TurnKey Project QA Officer:* *Lori E. Riker*

  Specific function and duties include:
  - Performing QA audits on various phases of the field operations
  - Reviewing and approving QA plans and procedures
  - Providing QA technical assistance to project staff
  - Reporting on the adequacy, status, and effectiveness of the QA program on a regular basis to the Project Manager for technical operations
  - Responsible for assuring third party data review of all sample results from the analytical laboratory

4.4 Field Responsibilities

Benchmark field staff for this project is drawn from a pool of qualified resources. The Project Manager will use staff to gather and analyze data, and to prepare various task reports and support materials. All of the designated technical team members are experienced professionals who possess the degree of specialization and technical competence required to effectively and efficiently perform the required work.

4.5 Quality Assurance Objectives for Measurement Data

The overall objectives and criteria for assuring quality for this effort are discussed below. This QAPP addresses how the acquisition and handling of samples and the review and reporting of data will be documented. The objectives of this QAPP are to address the following:

- The procedures to be used to collect, preserve, package, and transport groundwater samples.
- Field data collection.
- Record keeping.
- Data management.
- Chain-of-custody procedures.
- Precision, accuracy, completeness, representativeness, decision rules, comparability, and level of quality control effort conformance for sample analysis and data management by TestAmerica under EPA analytical methods.

4.6 Level of QC Effort for Sample Parameters

Field blank, equipment blank, method blank, trip blank, field duplicate, laboratory duplicate, laboratory control, standard reference materials (SRM), and matrix spike samples will be analyzed to assess the quality of the data resulting from the field sampling and analytical programs. QC samples are discussed below.

- Equipment and Trip Blanks consisting of distilled water will be submitted to the analytical laboratories to provide the means to assess the quality of the data resulting from the field-sampling program. Equipment blank samples are analyzed to check for procedural chemical constituents at the facility that may cause sample contamination. Trip Blanks are used to assess the potential for contamination of samples due to contaminant migration during sample shipment and storage.
- Method blank samples are generated within the laboratory and used to assess contamination resulting from laboratory procedures.

- Blind Duplicate samples will be collected sequentially as grab samples after collection of the initial sample to allow determination of analytical precision. The Blind Duplicate sample location will not be disclosed to the analytical laboratory.

- MS/MSD and MS/Duplicate samples provide information about the effect of the sample matrix on the digestion and measurement methodology. Depending on site-specific circumstances, one MS/MSD or MS/Duplicate should be collected for every 20 or fewer investigative samples to be analyzed for organic and inorganic chemicals of a given matrix.

The general level of QC effort will be one field blind duplicate and one field equipment blank (when non-dedicated equipment is used) for every 20 or fewer investigative samples of a given matrix. Additional sample volume will also be provided to the laboratory to allow one site-specific MS/MSD or MS/Duplicate for every 20 or fewer investigative samples of a given matrix. One trip blank consisting of distilled, deionized water will be included along with each sample delivery group of aqueous VOC samples.

4.7 Sampling and Analysis Plan

The selection and rationale for the RI sampling program is discussed in Section 3 above. Methods and protocol to be used to collect environmental samples (i.e., soil/fill and groundwater) for this investigation are described in the Benchmark Field Operating Procedures (FOPs) presented electronically in Appendix C.

The number and types of environmental samples to be collected is summarized on Table 1. Sample parameter lists, holding times and sample container requirements are summarized on Table 2. The sampling program and related site activities are discussed below. To the extent allowed by existing physical conditions at the Site, sample collection efforts will adhere to the specific methods presented herein. If alternative sampling locations or procedures are implemented in response to Site-specific constraints, each will be selected on the basis of meeting data objectives. Such alternatives will be approved by NYSDEC before implementation and subsequently documented for inclusion in the project file.

4.7.1 Custody Procedures

Sample custody is controlled and maintained through chain-of-custody procedures. Chain of custody is the means by which the possession and handling of samples will be

tracked from the source (field) to their final disposition, the laboratory. Sample containers will be cleaned and preserved at the laboratory before shipment to the Site. The following sections describe procedures for maintaining sample custody from the time samples are collected to the time they are received by the analytical laboratory, sample storage, as well as sample tracking. Benchmark's FOP 046.0: Sample Labeling, Storage, and Shipment, presented electronically in Appendix C, will provide the appropriate guidance for field personnel.

4.7.2 Sample Storage

Samples are stored in secure limited-access areas. Walk-in coolers or refrigerators are maintained at 4°C, ± 2°C, or as required by the applicable regulatory program. The temperatures of all refrigerated storage areas are monitored and recorded a minimum of once per day. Deviations of temperature from the applicable range require corrective action, including moving samples to another storage location if necessary.

4.7.3 Sample Custody

Sample custody is defined by this document as when any of the following occur:

- It is in someone's actual possession.
- It is in someone's view after being in his or her physical possession.
- It was in someone's possession and then locked, sealed, or secured in a manner that prevents unsuspected tampering.
- It is placed in a designated and secured area.

Samples are removed from storage areas by the sample custodian or analysts and transported to secure laboratory areas for analysis. Access to the laboratory and sample storage areas is restricted to laboratory personnel and escorted visitors only; all areas of the laboratory are therefore considered secure. If required by the applicable regulatory program, internal chain-of-custody is documented in a log by the person moving the samples between laboratory and storage areas.

Laboratory documentation used to establish COC and sample identification may include the following:

- Field COC forms or other paperwork that arrives with the sample.
- The laboratory COC.
- Sample labels or tags are attached to each sample container.
- Sample custody seals.
- Sample preparation logs (i.e., extraction and digestion information) recorded in hardbound laboratory books that are filled out in legible handwriting, and signed and dated by the chemist.
- Sample analysis logs (e.g., metals, GC/MS, etc.) information recorded in hardbound laboratory books that are filled out in legible handwriting, and signed and dated by the chemist.
- Sample storage log (same as the laboratory COC).
- Sample disposition log, which documents sample disposal by a contracted waste disposal company.

4.7.4 Sample Tracking

All samples are maintained in the appropriate coolers prior to and after analysis. The analysts remove and return their samples as needed. Samples that require internal COC are relinquished to the analysts by the sample custodians. The analyst and sample custodian must sign the original COC relinquishing custody of the samples from the sample custodian to the analyst. When the samples are returned, the analyst will sign the original COC returning sample custody to the sample custodian. Sample extracts are relinquished to the instrumentation analysts by the preparatory analysts. Each preparation department tracks internal COC through their logbooks/spreadsheets.

Any change in the sample during the time of custody will be noted on the COC (e.g., sample breakage or depletion).

4.7.5 Split Sampling

The Department may split any waste, soil, or groundwater sample during this RI. Benchmark personnel will cooperate with the Department to facilitate split sampling, as necessary.

4.8 Calibration Procedures and Frequency

This section describes the calibration procedures and the frequency at which these procedures will be performed for both field and laboratory instruments.

4.8.1 Field Instrument Calibration

Quantitative field data to be obtained during groundwater sampling include pH, turbidity, specific conductance, temperature, dissolved oxygen, and depth to groundwater. Quantitative water level measurements will be obtained with an electronic water level indicator, which requires no calibration. Quantitative field data to be obtained during soil/fill sampling include screening for the presence of volatile organic constituents using a PID.

FOPs located in Appendix C describe the field instruments used to monitor for these parameters and the calibration methods, standards, and frequency requirements for each instrument. Calibration results will be recorded on the appropriate field forms (see Appendix E).

4.9 Analytical Procedures

Samples collected during field sampling activities of this investigation will be analyzed by a NYSDOH Environmental Laboratory Approval Program (ELAP)-certified analytical laboratory.

4.9.1 Field Analytical Procedures

Field procedures for collecting and preserving groundwater and soil samples are described in FOPs located in Appendix C. A summary of the FOPs is presented on Table 3.

4.10 Data Usability Evaluation

Data usability evaluation procedures shall be performed for both field and laboratory operations as described below.

4.10.1 Procedures Used to Evaluate Field Data Usability

Procedures to validate field data for this project will be facilitated by adherence to the FOPs identified in Appendix C. The performance of all field activities, calibration checks on all field instruments at the beginning of each day of use, manual checks of field calculations, checking for transcription errors and review of field log books is the responsibility of the Field Team Leader.

4.10.2 Procedures Used to Evaluate Laboratory Data Usability

Data evaluation will be performed by the third party data validator using the most current methods and quality control criteria from the USEPA's Contract Laboratory Program (CLP) *National Functional Guidelines for Organic Data Review*, and Contract Laboratory Program*, National Functional Guidelines for Inorganic Data Review*. The data review guidance will be used only to the extent that it is applicable to the SW-846 methods; SW-846 methodologies will be followed primarily and given preference over CLP when differences occur. Also, results of blanks, surrogate spikes, MS/MSDs, and laboratory control samples will be reviewed/evaluated by the data validator. All sample analytical data for each sample matrix shall be evaluated. The third party data validation expert will also evaluate the overall completeness of the data package. Completeness checks will be administered on all data to determine whether deliverables specified in this QAPP are present. The reviewer will determine whether all required items are present and request copies of missing deliverables.

5.0 INVESTIGATION SUPPORT DOCUMENTS

5.1 Health and Safety Protocols

Benchmark has prepared a Site-Specific Health and Safety Plan (HASP) for use by our employees in accordance with 40 CFR 300.150 of the NCP and 29 CFR 1910.120. The HASP, provided in Appendix D, includes the following site-specific information:

- A hazard assessment.
- Training requirements.
- Definition of exclusion, contaminant reduction, and other work zones.
- Monitoring procedures for site operations.
- Safety procedures.
- Personal protective clothing and equipment requirements for various field operations.
- Disposal and decontamination procedures.

The HASP also includes a contingency plan that addresses potential site-specific emergencies, and a Community Air Monitoring Plan that describes required particulate and vapor monitoring to protect the neighboring community during intrusive site investigation and remediation activities.

Health and safety activities will be monitored throughout the field investigation. A member of the field team will be designated to serve as the on-site Health and Safety Officer throughout the field program. This person will report directly to the Project Manager and the Corporate Health and Safety Coordinator. The HASP will be subject to revision as necessary, based on new information that is discovered during the field investigation and/or remedial activities.

5.1.1 Community Air Monitoring

Real-time community air monitoring will be performed during all ground intrusive activities at the Site. A CAMP is included with Benchmark's HASP (Appendix D). The CAMP is consistent with the requirements for community air monitoring at remediation sites as established by the New York State Department of Health (NYSDOH) and NYSDEC. Accordingly, it follows procedures and practices outlined under NYSDEC's

DER-10 (May 2010) Appendix 1A (NYSDOH's Generic Community Air Monitoring Plan) and Appendix 1B (Fugitive Dust and Particulate Monitoring).

5.2 Citizen Participation Activities

NYSDEC will coordinate and lead community relations throughout the course of the project. Benchmark will support NYSDEC's community relations activities, as necessary. A Citizen Participation Plan will be prepared by Benchmark and submitted to NYSDEC under separate cover upon acceptance into the BCP and execution of the BCA. The Citizen Participation Plan will follow NYSDEC's Citizen Participation Plans template for Brownfield Cleanup Program sites entering the BCP at the point of site investigation per NYSDEC DER-23 (January 2010).

6.0 REPORTING AND SCHEDULE

Upon completion of the RI fieldwork, a comprehensive Remedial Investigation / Alternatives Analysis Report (RI/AAR) will be prepared summarizing the RI tasks completed as described below.

6.1 Remedial Investigation Reporting

The RI/AA Report will include the following information and documentation, consistent with the NYSDEC's DER-10 Technical Guidance for Site Investigation and Remediation (May 2010).

- Introduction and background;
- A description of the site and the investigation areas;
- A description of the field procedures and methods used during the RI;
- A discussion of the nature and rationale for any significant variances from the scope of work described in this RI Work Plan;
- The data obtained during the RI and historical data considered by Benchmark to be of useable quality. This will include geochemical data, field measurements, etc.;
- A discussion of contaminant fate and transport. This will provide a description of the hydrologic parameters of the Site, and an evaluation of the lateral and vertical movement of groundwater;
- Conclusions regarding the extent and character of environmental impact in the media being investigated;
- The conclusions of the qualitative human health and environmental risk assessments, including any recommendations for more detailed assessments, if applicable; and,
- Supporting materials for RI data. These will include boring logs, monitoring well construction diagrams, laboratory analytical reports, and similar information.

In addition, Benchmark will require third-party data review by a qualified, independent data validation expert. Specifically, a Data Usability Summary Report (DUSR) will be prepared, with appropriate data qualifiers added to the results. The DUSR will follow

NYSDEC format per the NYSDEC's September 1997 DUSR guidelines and May 2010 DER-10 guidance. The DUSR and any necessary qualifications to the data will be appended to the RI/AAR Report.

Benchmark will provide all submittals to the NYSDEC in accordance with the electronic data deliverables (EDD) requirements.

6.2 Alternatives Analysis Report

An alternatives analysis report (AAR) will be completed to provide a forum for evaluating and selecting a recommended remedial approach. Based on the findings of the RI, a list of remedial action objectives will be developed with the requirement for the selected remedial measures to be protective of human health and the environment under the proposed future use scenario. Proposed soil cleanup objectives (SCOs) for the property will also be presented based on the proposed future use of the Site. SCOs will be based on published standards, criteria, and guidance (SCGs) and other NYSDEC and NYSDOH-accepted values.

Based on the remedial action objectives and SCOs, volumes and areas of media potentially requiring additional remediation will be calculated. General response actions will then be delineated to address each of the site problem areas. These response actions will form the foundation for the development and screening of applicable remedial alternatives against the following criteria as described in 6NYCRR 375-1.10:

- Overall Protection of Human Health and the Environment
- Compliance with Standards, Criteria, & Guidance (SCGs)
- Long-term Effectiveness & Permanence
- Reduction of Toxicity, Mobility, or Volume
- Short-term Effectiveness
- Implementability
- Cost

In addition, the criteria of community acceptance will be considered based on public comments on the AAR and proposed remedial action. Following the screening of alternatives, a comparative analysis will be performed against the above criteria. The comparative analysis will allow for better understanding of the relative advantages and

disadvantages of each of the alternatives, and will facilitate identification of a recommended remedial approach.

6.3 Project Schedule

An estimated project schedule for the RI and major environmental tasks to be performed is presented on Figure 5.

6.4 Electronic Copy of RI Work Plan

An electronic version of this RI Work Plan is presented in Appendix F.

7.0 REFERENCES

1. New York State Department of Environmental Conservation. *DER-10; Technical Guidance for Site Investigation and Remediation*. May 2010.

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3. Geologic Map of New York, Niagara Sheet, Compiled and Edited by Lawrence V. Rickard and Donald W. Fisher, University of the State of New York, The State Education Department. March 1970.

4. National Oceanic & Atmospheric Administration (NOAA) Satellites and Information. Data Tables through 2000.

5. Benchmark Environmental Engineering and Science, PLLC. *Supplemental Phase II Site Investigation Report, 154 South Ogden Street Site, Buffalo, New York*. March 2012.

6. Empire GeoServices, Inc. *Report of Environmental Test Pit Investigation, Proposed Charter School, 154 South Ogden Street, Buffalo, New York*. December 2011.

7. LCS, Inc. *Citizens Preliminary Environmental Site Assessment, Undeveloped/Vacant/Wooded/Fallow Land, 154 South Ogden Street, Buffalo, New York*. July 2011.

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9. U.S. Environmental Protection Agency, Region II. *CERCLA Quality Assurance Manual, Revision I*. October 1989.

10. U.S. Environmental Protection Agency, *Methods for Chemical Analysis of Water and Wastes*, EPA 600/4-70-020. 1983b.

11. U.S. Environmental Protection Agency. National Functional Guidelines for Organic Data Review (EPA-540/R-94-012), 1994a.

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TABLES

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TABLE 1

SAMPLING AND ANALYSIS PLAN [1]

Remedial Investigation Work Plan
154 South Ogden Street Site
Buffalo, New York

Matrix	Parameter	No. Samples	Estimated Number of QC Samples [2, 3, 4]					Total
			Trip Blank	Matrix Spike	MS Duplicate	Blind Duplicate	Equipment Blank	
Soil Samples								
Surface Soil/Fill (0-6") (8 locations)	TCL + STARS VOCs	TBD						
	TCL SVOCs	8		1	1	1		11
	TAL Metals	8		1	1	1		11
	PCBs	8		1	1	1		11
	Pesticides	8		1	1	1		11
	Herbicides	8		1	1	1		11
Near-Surface Soil/Fill (0-2') (10 locations)	TCL + STARS VOCs [5]	10		1	1	1		13
	TCL SVOCs	10		1	1	1		13
	TAL Metals	10		1	1	1		13
	PCBs	10		1	1	1		13
	Pesticides	10		1	1	1		13
	Herbicides	10		1	1	1		13
Subsurface Soil/Fill (2-16') (30 locations)	TCL + STARS VOCs [5]	30		1	1	1		33
	TCL SVOCs	30		1	1	1		33
	TAL Metals	30		1	1	1		33
	PCBs	30		1	1	1		33
	Pesticides	30		1	1	1		33
	Herbicides	30		1	1	1		33
	Total Samples:	280	0	17	17	17	0	331
Groundwater Samples								
Groundwater (5 locations)	TCL + STARS VOCs	5	1	1	1	1	1	10
	TCL SVOCs	5		1	1	1	1	9
	TAL Total Metals	5		1	1	1	1	9
	TAL Dissolved Metals [6]	TBD		TBD	TBD	TBD	TBD	TBD
	PCBs	5		1	1	1	1	9
	Pesticides	5		1	1	1	1	9
	Herbicides	5		1	1	1	1	9
	Field Parameters: DO, pH, Turbidity, Conductance, Temperature	5						5
	Total Samples:	35	1	6	6	6	6	60

Notes:

1. RI analyses will be performed via USEPA SW-846 methodology w/ equivalent Category B deliverables package.
2. Trip blanks will be submitted to the laboratory each day aqueous volatile organic samples are collected.
3. Blind duplicate and MS/MSD samples will be collected at a frequency of 1 per 20 samples per matrix (e.g., soil or groundwater) collected.
4. Non-dedicated pumps used for groundwater purge & sample collection will be decontaminated prior to use; an equipment blank will be required.
5. VOC samples will be collected at the frequency indicated based on visual/olfactory and PID readings. If differentiable impacts are noted across separate horizons within a particular boring, additional VOC samples will be collected upon consultation with the Project Manager and the Department.
6. If groundwater turbidity exceeds 50 NTUs, an additional field filtered (or laboratory filtered) sample will be collected for dissolved metals analysis.

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TABLE 2

SAMPLE CONTAINER, VOLUME, PRESERVATION & HOLDING TIME REQUIREMENTS

Remedial Investigation Work Plan
154 South Ogden Street Site
Buffalo, New York

Matrix	Parameter [1]	Method [1]	Container Type	Minimum Volume	Preservation (Cool to 2-4 °C for all samples)	Holding Time from Sample Date
Soil/Fill Sediment	TCL + STARS VOCs + MTBE	8260B	WMG	16 oz.	Cool to 2-4 °C, Zero Headspace	14 days
	TCL SVOCs & Tetraethyl Lead	8270C	WMG	16 oz.	Cool to 2-4 °C	14 days extrac./40 days
	TAL Metals & Total Lead	6010B	WMG	4 oz.	Cool to 2-4 °C	6 months/Hg 28 days
	Pesticides	8081	WMG	8oz	Cool to 2-4 °C	14 days extrac./40 days
	Herbicides	8151	WMG	8oz	Cool to 2-4 °C	14 days extrac./40 days
	PCBs	8082	WMG	4 oz.	Cool to 2-4 °C	14 days extrac./40 days
Groundwater	TCL + STARS VOCs + MTBE	8260B	glass vial	3 - 4 oz.	HCl to pH<2, Zero Headspace, Cool to 2-4 °C	14 days
	TCL SVOCs & Tetraethyl Lead	8270C	amber glass	1000 ml	Cool to 2-4 °C	7 days extrac/40 days
	TAL Metals & total Lead	6010B	plastic	600 ml	HNO_3 to pH<2, Cool to 2-4 °C	6 months/Hg 28 days
	PCBs	8082	amber glass	1000 ml	Cool to 2-4 °C	7 days extrac/40 days

References:
1. Test Methods for Evaluating Solid Wastes, USEPA SW-846, Update III, 1991.

Notes:
1. EPA-approved methods published in Reference 1 above may be used. The list of analytes, laboratory method and the method detection limit for each parameter are included in Tables 1 and 2 of the QAPP.

Acronyms:
VOCs = Volatile Organic Compounds
SVOCs = Semi-Volatile Organic Compounds
TCL = Target Compound List
TAL = Target Analyte List
WMG = Wide Mouth Glass

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TABLE 3

SUMMARY OF FIELD OPERATING PROCEDURES

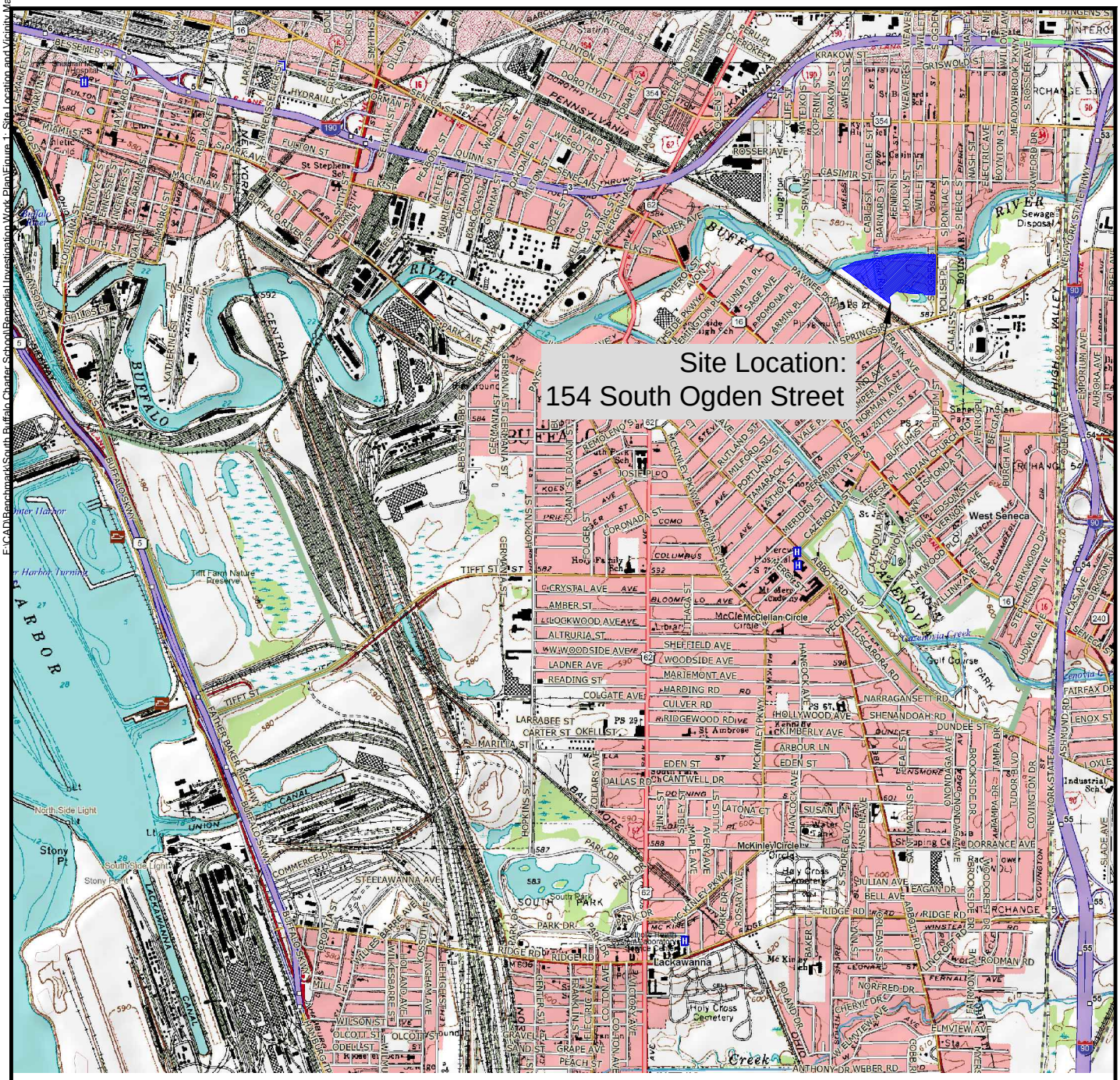
Remedial Investigation Work Plan
154 South Ogden Street Site
Buffalo, New York

Benchmark FOP No.	Procedure
001.1	Abandonment of Borehole Procedures
002.0	Abandonment of Monitoring Wells Procedure
004.3	Ambient Air/Subslab Vapor Sample Collection Procedure
007.0	Calibration and Maintenance of Portable Dissolved Oxygen Meter
008.0	Calibration and Maintenance of Portable Field pH/Eh Meter
009.0	Calibration and Maintenance of Portable Field Turbidity Meter
011.0	Calibration and Maintenance of Portable Photoionization Detector
012.0	Calibration and Maintenance of Portable Specific Conductance Meter
013.0	Composite Sample Collection Procedure for Non-VOC analysis
015.0	Documentation Requirements for Drilling and Well Installation
017.0	Drill Site Selection Procedure
018.0	Drilling and Excavation Equipment Decontamination Procedures
021.0	Establishing Horizontal and Vertical Control
022.0	Groundwater Level Measurement
023.0	Groundwater Purging Procedures Prior to Sample Collection
024.0	Groundwater Sample Collection Procedures
026.1	Hollow Stem Auger (HSA) Drilling Procedures
031.1	Low Flow (Minimal Drawdown) Groundwater Purging & Sampling Procedure
032.1	Management of Investigation-Derived Waste (IDW)
033.0	Monitoring Well Construction for Hollow Stem Auger Boreholes
036.0	Monitoring Well Development Procedures
040.1	Non-Disposable and Non-Dedicated Sampling Equipment Decontamination
046.0	Sample Labeling, Storage and Shipment Procedures
047.0	Screening of Soil Samples for Organic Vapors During Drilling Activities
054.2	Soil Description Procedures Using The Visual-Manual Method
058.0	Split-Spoon Sampling Procedures
063.2	Surface and Subsurface Soil Sampling Procedures
065.1	Test Pit Excavation and Logging Procedures
073.2	Real-Time Air Monitoring During Intrusive Activities
076.0	"Before Going Into the Field" Procedure
078.0	Geoprobe Drilling Procedure
084.0	Calibration and Maintenance of Portable Particulate Meter
085.0	Field Quality Control Procedures

FIGURES

E:\CAD\Benchmark\South Buffalo Charter School\Remedial Investigation Work Plan\Figure 1 Site Location and Vicinity Map.dwg

FIGURE 1



N

3000' 0' 3000' 6000'

SCALE: 1 INCH = 3000 FEET
SCALE IN FEET
(approximate)

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0599

PROJECT NO.: 0249-012-003

DATE: APRIL 2012

DRAFTED BY: BCH

SITE LOCATION AND VICINITY MAP

REMEDIAL INVESTIGATION WORK PLAN

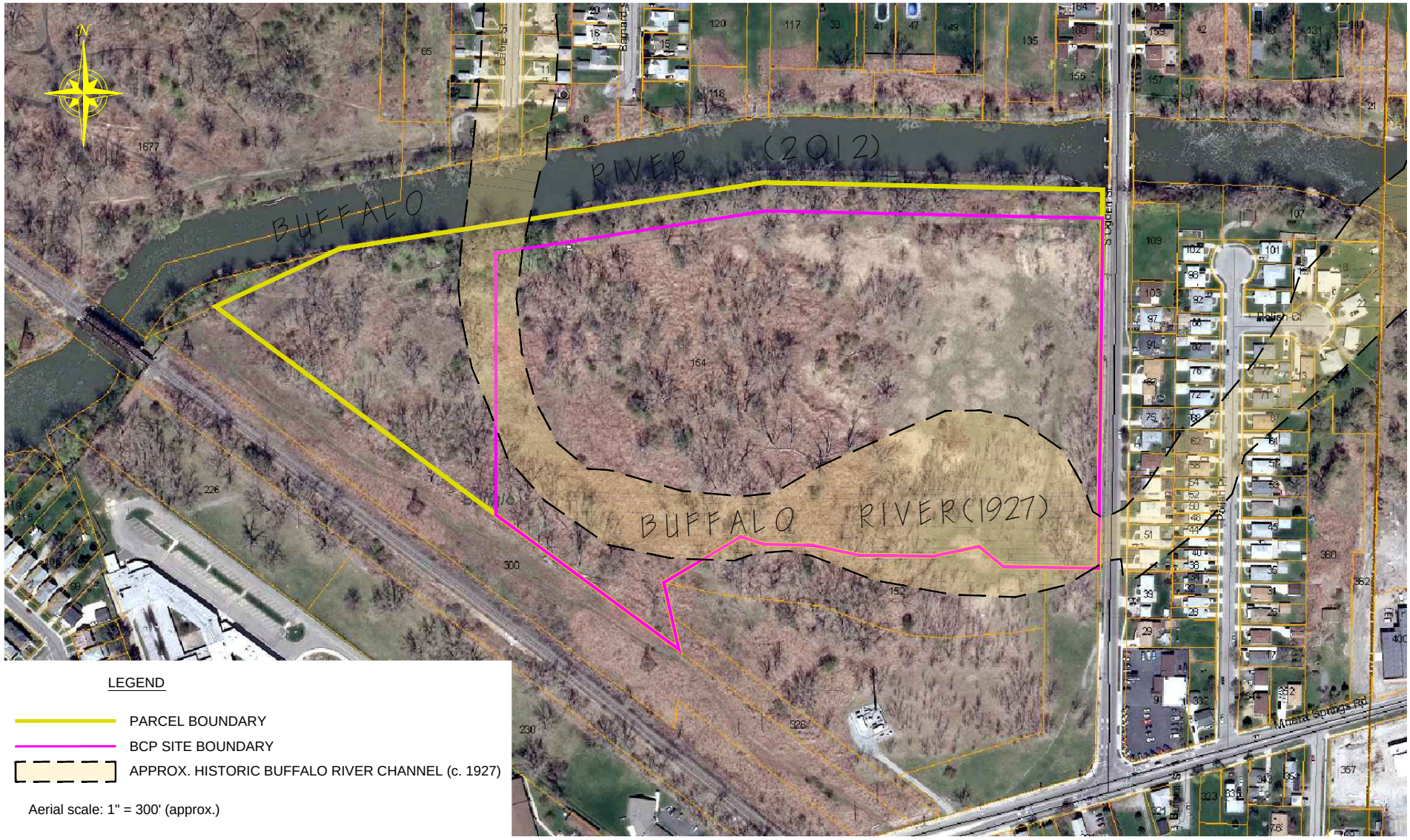
154 SOUTH OGDEN STREET

BUFFALO, NEW YORK

PREPARED FOR

154 SOUTH OGDEN, LLC

F:\CAD\Benchmark\South Buffalo Charter School\Remedial Investigation Work Plan\Figure 2; Site Plan (Aerial) June2012.dwg



BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0599

PROJECT NO.: 0249-012-003

DATE: JUNE 2012

DRAFTED BY: NTM

SITE PLAN (AERIAL)

REMEDIAL INVESTIGATION WORK PLAN

154 SOUTH OGDEN STREET SITE

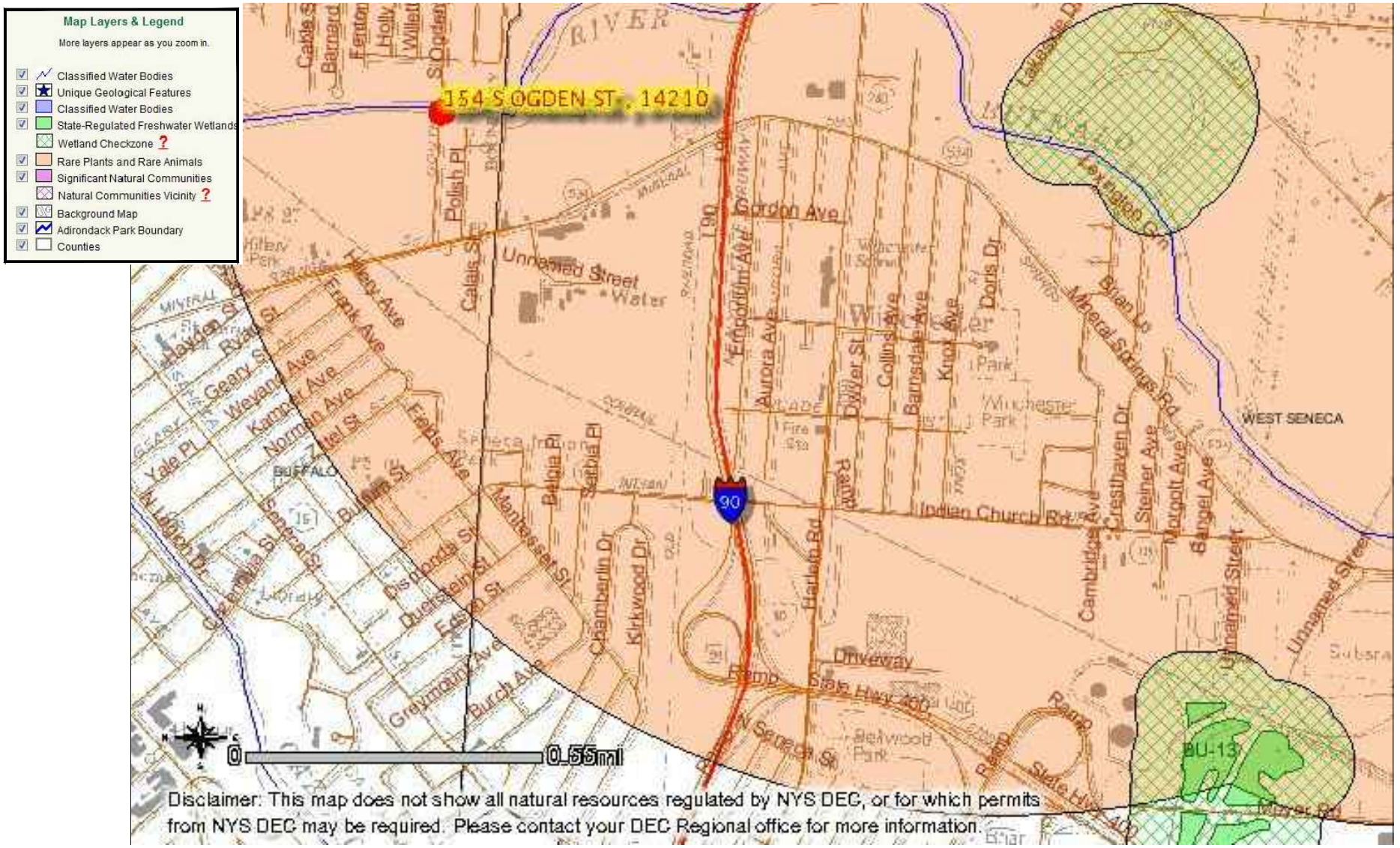
BUFFALO, NEW YORK

PREPARED FOR

154 SOUTH OGDEN, LLC

FIGURE 2

F:\CAD\Benchmark\South Buffalo Charter School\Remedial Investigation Work Plan\Figure 3; NYSDEC Wetland Map.dwg



BENCHMARK
ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0599

PROJECT NO.: 0249-012-003

DATE: APRIL 2012

DRAFTED BY: JGT

NYSDEC WETLAND MAP

REMEDIAL INVESTIGATION WORK PLAN

154 SOUTH OGDEN STREET SITE

BUFFALO, NEW YORK

PREPARED FOR

154 SOUTH OGDEN, LLC

FIGURE 3

F:\CAD\Benchmark\South Buffalo Charter School\Remedial Investigation Work Plan\Figure 4; Planned RI Sample Locations.dwg

BUFFALO RIVER (2012)

PLANNED BUFFALO RIVER EASEMENT
(60-FT WIDE)

PLANNED BUFFALO RIVER EASEMENT

SOUTH OGDEN STREET

MINERAL SPRINGS ROAD

POSSIBLE FUTURE ADDITION

PROPOSED SOUTH BUFFALO CHARTER SCHOOL

APPROX. BUFFALO RIVER CHANNEL (1927)

CITY OF BUFFALO SBL 125.15-1-5

YAMIN AHMAD SBL 125.15-1-4

CITY OF BUFFALO SBL 125.15-1-6

NIAGARA MOHAWK SBL 125.15-1-9

THEODORE ZEMBATY SBL 125.15-1-7.2

THEODORE ZEMBATY SBL 125.15-1-8

THEODORE ZEMBATY SBL 125.15-1-7

MW-1
MW-2
MW-3
MW-4
MW-5

TW-01 (SB-1)
TW-02 (SB-2)
TW-03 (SB-4)

SB-1 SB-2 SB-3 SB-4 SB-5 SB-6 SB-7 SB-8 SB-9 SB-10 SB-11 SB-12 SB-13 SB-14 SB-15 SB-16 SB-17 SB-18 SB-19 SB-20 SB-21 SB-22 SB-23 SB-24 SB-25 SB-26 SB-27 SB-28 SB-29 SB-30 SB-31 SB-32 SB-33 SB-34 SB-35 SB-36 SB-37 SB-38

SS-1 SS-2 SS-3 SS-4 SS-5 SS-6 SS-7 SS-8 SS-11

TP-01-2012 TP-02-2012 TP-03-2012 TP-04-2012 TP-05-2012 TP-06-2012 TP-07-2012 TP-08-2012 TP-09-2012 TP-10-2012 TP-11-2012 TP-12-2012 TP-13-2012 TP-14-2012 TP-15-2012 TP-16-2012 TP-17-2012 TP-18-2012 TP-19-2012 TP-20-2012

LEGEND:

- PROPERTY BOUNDARY
- PARCEL BOUNDARY
- BCP BOUNDARY
- APPROX. HIGH PRESSURE GAS MAIN AND 25' EASEMENT
- SS-1 PLANNED RI SURFACE (0-6") SAMPLE LOCATION
- SB-17 PLANNED RI SOIL BORING & NEAR SURFACE (0-2') SAMPLE LOCATION
- SB-9 PLANNED RI SOIL BORING LOCATION
- MW-1 PLANNED RI GROUNDWATER MONITORING WELL LOCATION
- SB-6 BORING LOCATION (BENCHMARK 2012)
- TP-10-2012 TEST PIT LOCATION (BENCHMARK 2012)
- TW-02 (SB-2) TEMPORARY MONITORING WELL LOCATION (BM 2012)
- PLANNED SCHOOL BUILDING
- PLANNED IMPROVEMENTS
- DELINEATED PETROLEUM IMPACTS
- APPROX. HISTORIC BUFFALO RIVER CHANNEL (c. 1927)

N

150' 0' 150' 300'

SCALE: 1 INCH = 150 FEET
SCALE IN FEET
(approximate)

DATE: JUNE 2012
DRAFTED BY: BCH/NTM

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC
2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0599

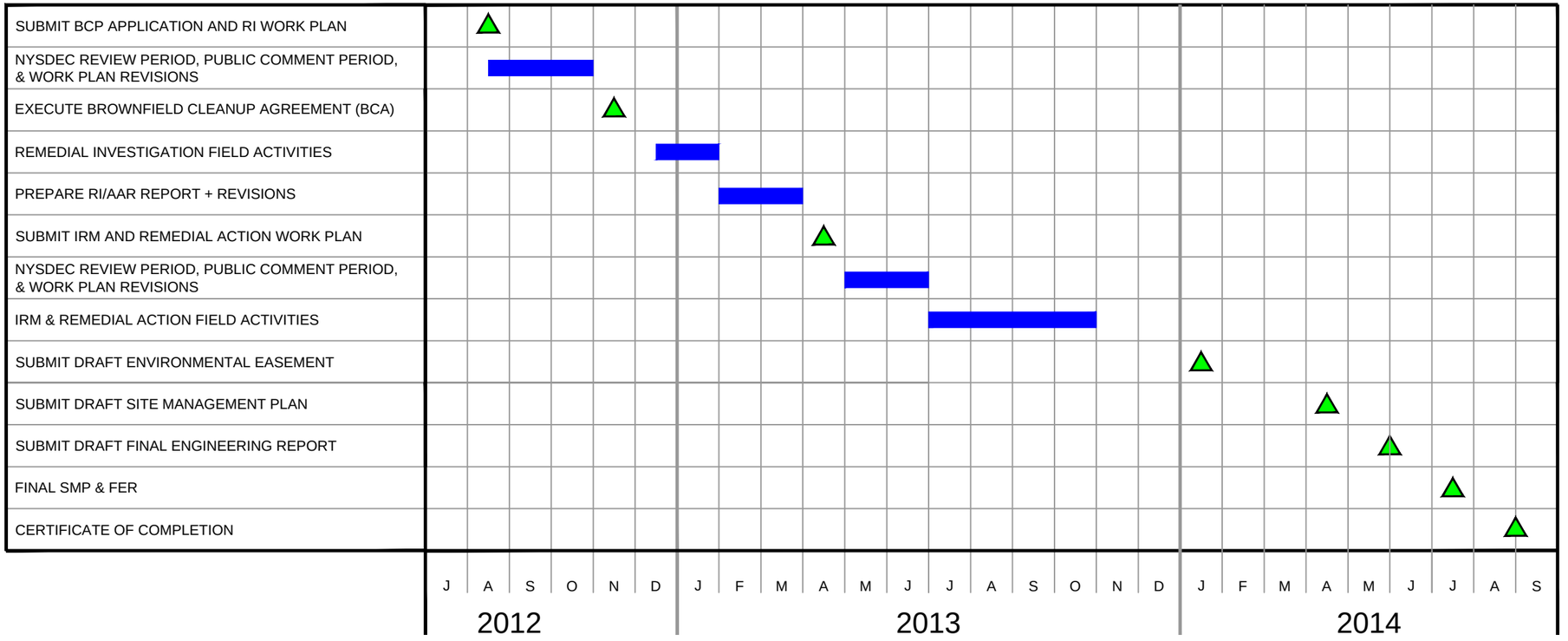
JOB NO.: 0249-012-003

PLANNED RI SAMPLE LOCATIONS

REMEDIAL INVESTIGATION WORK PLAN
154 SOUTH OGDEN STREET SITE
BUFFALO, NEW YORK
PREPARED FOR
154 SOUTH OGDEN, LLC

FIGURE 4

PROJECT TASKS:



BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC
2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0599

JOB NO.: 0249-012-003

PROJECT SCHEDULE

REMEDIAL INVESTIGATION WORK PLAN
154 SOUTH OGDEN STREET SITE
BUFFALO, NEW YORK
PREPARED FOR
154 SOUTH OGDEN, LLC

FIGURE 5

DATE: NOVEMBER 2012
DRAFTED BY: NTM

APPENDIX A

RESUMES OF PROJECT PERSONNEL

BRYAN C. HANN
PROJECT MANAGER

EDUCATION

BA (Geology) 1993; Alfred University

REGISTRATION

Certified OSHA 40-Hour Hazardous Waste Site Training
Troxler Certified Nuclear Moisture-Density Gauge Operator
DOT Hazardous Materials Training (Section 172.704 (HM 126F))
Confined Space Rescue Certified (CFR 1910.146)
Radiation Worker II (8 Hour)(10 CFR 835.901 and DOE Notice 441.1); February 7, 2001
Member - Buffalo Association of Professional Geologist
Member - New York State Council of Professional Geologist
Member - National Groundwater Association
Member - American Society for Testing and Materials (ASTM): D18 & D35

SUMMARY OF EXPERIENCE

Mr. Hann has nearly 18 years of experience in a wide variety of hydrogeologic, geologic, soils testing, remediation, and remedial construction activities. Assignments have included activities associated with New York State Brownfield Cleanup Program sites, Remedial Investigations, Interim Corrective Measures, Interim Remedial Measures, State Superfund projects, Preliminary Site Assessments, Voluntary Cleanup Projects, Phase I/II Site Assessments, and site remediation projects. Mr. Hann has performed numerous environmental site assessments at industrial properties, and has assisted in preparation of remedial design documents for dozens of sites. Mr. Hann has also served as lead construction inspector and performed quality assurance field testing for several landfill closure and construction projects as well as groundwater collection and treatment projects. He is proficient with several pertinent computer software packages including the Geographical Information System (GIS).

REPRESENTATIVE PROJECT EXPERIENCE

Assisted in preparation and implementation of a Corrective Measures Study for the Tecumseh Redevelopment, Inc. owned Former Bethlehem Steel Coke Oven Division Site located in Lackawanna, New York. Duties included summarizing 43 solid waste management units (SWMUs) and 5 water courses defined during the RCRA Facility Investigation conducted at the site, groundwater quality assessment for five discharge areas, preparation of numerous CADD figures, project management of supplemental investigations for several SWMUs and water courses to close data gaps, and preparation of the CMS Report.

Provided geologic and hydrogeologic interpretation and assessment during the discovery phase of a deep aquifer chlorinated solvent contamination case involving a privately owned industrial facility located in Fullerton, California. Duties included review of over 20 reports, numerous letters of correspondence, and miscellaneous files in preparation for potential litigation. A

complex subsurface lithology (e.g., alluvial fan) compounded by a unique hydrogeologic setting (e.g., deep aquifer) required the preparation of cross-sections, isoconcentration maps, and textual descriptions provided to council in a clear and concise manner to be presented in court.

Managed and supervised field activities associated with a Supplemental Site Investigation of a privately owned industrial facility located in Lockport, New York. Duties included: management and supervision of various field activities such as rear-mounted rig drilling through overburden and bedrock; sample collection of various media (soil, groundwater, and DNAPL); data analysis, assessment, and evaluation; monitoring well installation; well development; DNAPL assessment and remediation in fractured bedrock; site reconnaissance; report preparation; and client/attorney contact.

Assisted in the preparation of numerous New York State Brownfield Cleanup Program accepted applications, including, but not limited to: a former machine shop site in Niagara Falls, New York; several former steel plant sites in Buffalo, New York; a wind turbine electric generation facility at the Former Bethlehem Steel Site in Lackawanna, New York; a former industrial site located in Tonawanda, New York; a former shooting range site for a private developer in Williamsville, New York; several former dry-cleaner sites for a private developers in Buffalo, Spencerport, and Watkins Glen, New York; and a former railroad yard in Buffalo, New York.

Managed and supervised the New York State Brownfield Cleanup Program Remedial Investigation at the 102-acre Tecumseh Phase I Business Park Area located within the former Bethlehem Steel Plant site in Lackawanna, New York. Duties included drilling oversight, test pit contractor oversight, logging soil descriptions, monitoring well and piezometer installation oversight, soil/groundwater sample collection, delineation of impacted soils associated with USTs, management of field personnel, report preparation, client, and NYSDEC contact.

Prepared a Site Investigation/Remedial Alternatives Selection (SI/RAS) Work Plan for the Despatch Industries, Inc. owned Former Brainerd Manufacturing Facility located in East Rochester, NY. Duties included management and supervision during the implementation of the Work Plan such as boring advancement, well installation, well development, groundwater sample collection, and a subslab vapor assessment of nearby residents.

Managed and supervised the installation of nine product/groundwater recovery wells, ten observation piezometers, and three downgradient monitoring wells for the Benzol Plant Interim Corrective Measures (ICM) implemented in support of a site-wide Corrective Measures Study at the Former Bethlehem Steel Lackawanna Coke Division Site located in Lackawanna, New York. Duties included management and supervision of drilling subcontractor, photoionization detector scans and headspace evaluations, recovery well/monitoring well/piezometer installation, well development, report preparation, NYSDEC contact, and project budget assessment.

Former Bethlehem Steel Lackawanna Coke Division Site, Lackawanna, New York. Managed and conducted field activities associated with groundwater monitoring at the Tecumseh

Redevelopment, LLC owned Former Bethlehem Steel Manufacturing Site Hazardous Waste Management Units (HWM) 1, 1A and 2. Duties included: implementation of a low-flow/minimal drawdown sampling program, monitoring well maintenance, client and NYSDEC contact, data evaluation and report preparation. Successfully petitioned the NYSDEC for a reduction in monitored parameters and frequency, reducing the cost of the program by almost $15,000.

Supervised drilling activities as part of a New York State Brownfield Cleanup Program Remedial Investigation of a New York State brown-field redevelopment project, located in Buffalo, New York, for a private company. Duties included logging soil descriptions, continuous split-spoon sampling, jar headspace evaluation, soil sampling, monitoring well installation/development and sampling, and report preparation.

APPENDIX B

PREVIOUS INVESTIGATION REPORTS

(PROVIDED ELECTRONICALLY)

APPENDIX B1

MARCH 2012
SUPPLEMENTAL PHASE II SITE INVESTIGATION REPORT

(PROVIDED ELECTRONICALLY)

Supplemental Phase II Site Investigation Report

154 South Ogden Street Site
Buffalo, New York

March 2012 0249-012-001

Prepared For:

South Buffalo Charter School

Prepared By:

BENCHMARK
ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

2558 Hamburg Turnpike, Suite 300, Buffalo, New York 14218 | phone: (716) 856-0599 | fax: (716) 856-0583

SUPPLEMENTAL PHASE II SITE INVESTIGATION REPORT

154 SOUTH OGDEN STREET
BUFFALO, NEW YORK

March 2012 0249-012-001

Prepared for:

South Buffalo Charter School

Prepared By:

Benchmark Environmental Engineering & Science, PLLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716)856-0599

SUPPLEMENTAL PHASE II SITE INVESTIGATION REPORT
154 South Ogden Street, Buffalo, NY

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- 1.2 Supplemental Phase II Site Investigation Approach 2
- 1.3 Purpose and Scope 3

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  - *2.1.2 Test Pit Abandonment 5*
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SUPPLEMENTAL PHASE II SITE INVESTIGATION REPORT
154 South Ogden Street, Buffalo, NY

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1.0 INTRODUCTION

1.1 Background

The subject property is comprised of an approximate 27-acre vacant plot of land located at 154 South Ogden Street near the northwest intersection of Mineral Springs Road in Buffalo, New York (see Figure 1). The property is generally bound to the north by the Buffalo River, to the east by South Ogden Street, to the south by private property and to the west by railroad tracks and vacant property owned by the City of Buffalo. Surrounding property use is primarily residential. Historic records indicate that the site was not previously developed; however a portion of the property was previously traversed by the Buffalo River and was filled with concurrent straightening of the river channel (Ref. 1).

South Buffalo Charter School has expressed an interest in potentially acquiring the property for redevelopment as a new charter school facility. Accordingly, the Board of Trustees commissioned a Phase I Environmental Site Assessment (ESA) for the Site and certain adjoining parcels in July 2011 (Ref. 1). The Phase I ESA report identified the existing railroad spur west and south of the Site as a potential environmental condition. Piles of asphalt, concrete, and general debris were also noted along the northern portion of the property. A subsequent October 2011 geotechnical investigation (by others) identified soil/fill materials from approximately 6 to 23.5 feet below ground surface (fbgs) with a slight petroleum-like odor described at one of the boring locations at a depth of 15 to 17 fbgs (Ref. 2). Based on these findings, 10 additional environmental investigation borings were advanced. Recovered soils from two locations exhibited slightly elevated photoionization detector (PID) readings. Laboratory analysis of select soils indicated the presence of arsenic, copper, and lead within the soil/fill material above residential and restricted residential soil cleanup objectives (SCOs) per 6NYCRR Part 375-6 (Ref. 2).

In late November 2011, a test pit investigation was performed across the Site and adjacent properties. Fill materials were observed at 21 of 22 test pits ranging in thickness from approximately 1 foot to more than 12.5 feet and were underlain by native silty sand (Ref. 2). Visual/olfactory observations of impact were identified at four test pit locations (TP-3, TP-13, TP-15 and TP-17 as shown on Figure 2); test pit TP-3 appeared to contain ash and test pits TP-13, TP-15, and TP-17 were described as having a "sweet" odor. Laboratory analysis of test pits was limited to locations TP-3 and TP-13; elevated heavy

metal concentrations were detected at both locations (Ref. 2). In addition, elevated polycyclic aromatic hydrocarbons (PAHs) and chlorinated organics were identified at test pit TP-13. Both samples were also determined not to be characteristically hazardous (per TCLP analysis) (Ref. 2).

1.2 Supplemental Phase II Site Investigation Approach

Based on the findings of the Phase I ESA and the initial Phase II investigation work, South Buffalo Charter School retained Benchmark Environmental Engineering & Science, PLLC (Benchmark) to perform supplemental Phase II Site investigation activities at the Site. Adjacent properties shown on Figure 2 were not included in this investigation. Goals of the supplemental Phase II investigation work included:

- Assuring that soil/fill materials identified at the Site, particularly the upper 2 feet, are adequately characterized to identify any additional areas of concern relative to the Part 375 restricted residential SCOs. These criteria are deemed protective of human health for both children and adults in a school setting.

- Identification of any "hot spot" areas which may require removal due to concentration or potential vapor intrusion concerns (i.e., from volatilization and subsequent migration into building air).

- Collection of groundwater data to check for impacts by constituents of potential concern and verify the absence of constituents associated with vapor intrusion and environmental impact.

The Supplemental Phase II Investigation field activities were undertaken during the period of February 7-9, 2012. Work performed in support of the above-listed goals included:

- Excavation of 20 additional test pits across the property to allow for visual/olfactory/ and PID assessment of subsurface conditions, and collection and analysis of several surface and subsurface soil/fill samples for chemical characterization.

- Installation of three (3) temporary monitoring wells with collection and analysis of groundwater samples from each location.

1.3 Purpose and Scope

This report has been prepared to document the procedures and findings of the Supplemental Phase II Site Investigation of the 154 South Ogden Street Site. This report contains six (6) sections:

- Section 2 describes site investigation procedures and related activities.
- Section 3 presents investigation findings.
- Section 4 presents a summary and conclusions regarding the investigation.
- Sections 5 and 6 present report limitations and references, respectively.

2.0 SITE INVESTIGATION

The Supplemental Phase II Investigation was performed in accordance with Benchmark's proposal dated February 2, 2012, as well as local, state, and federal regulations. Investigation activities are described in the following Sections. All investigation locations described below were measured and recorded via a Trimble GeoXT handheld GPS unit relative to State planar grid coordinates.

2.1 Soil/Fill Investigation

On February 7-8, 2012, twenty (20) test pits identified as TP-1-2012 through TP-20-2012 were excavated across the property to allow for visual, olfactory and PID assessment of subsurface conditions, and to facilitate collection of surface and subsurface soil/fill samples for chemical characterization (see Figure 2). Test pits were focused toward areas near observed potential impact as recorded during the initial Phase II investigation activities (i.e., petroleum-impacts), as well as areas proximate to the proposed school footprint. In general, test pits were excavated from ground surface to native soils or groundwater, whichever was encountered first, using an excavator. Test pit walls and excavated soil/fill were examined by qualified Benchmark personnel and classified in accordance with the Unified Soils Classification System (USCS). Field screening via PID was conducted across the test pit depth.

2.1.1 Soil/Fill Sample Collection

At test pit locations TP-03-2012, -04, -05, -09, -10, -11,-14, -15, -17, and -20, a shallow (0'-2') soil/fill sample was collected. Deeper subsurface samples were collected from test pits TP-03-2012 (11'-13'), TP-04-2012 (6'-15'), and TP-17-2012 (6'-17'). All surface soil/fill samples were slated for analysis of USEPA Target Compound List (TCL) volatile organic compounds (VOCs); TCL base-neutral semi-volatile organic compounds (SVOCs); Resource Conservation and Recovery Act (RCRA) metals; and polychlorinated biphenyls (PCBs). The subsurface samples were analyzed for total arsenic and total lead. In addition, the analytical requirements for shallow soil/fill samples TP-14 and TP-15 were expanded to include acid extractable SVOCs, total cyanide, pesticides, and herbicides.

Soil/fill samples were collected and prepared using pre-cleaned and dedicated stainless steel sample utensils in accordance with Benchmark's standard Field Operating Procedures (FOPs), placed in pre-cleaned laboratory supplied sample bottles, cooled to 4ºC in the field, and transported under chain-of-custody command to TestAmerica Laboratories, Inc., a National Environmental Laboratory Approval Program (NELAP) and Contract Laboratory Program (CLP)-certified analytical laboratory, for analysis in accordance with USEPA Method SW-846 protocols. A level IV (equivalent New York State Department of Environmental Conservation (NYSDEC) Category B) laboratory deliverables report was prepared. Site-specific quality assurance/quality control (QA/QC) samples, including a matrix spike/matrix spike duplicate (from test pit TP-14-2012) sample, were also collected to assist in evaluation of the reliability of the data.

2.1.2 Test Pit Abandonment

Following completion of each test pit, soil/fill material was returned to the excavation in the opposite order it was removed and compacted to match the existing grade.

2.2 Groundwater Investigation

Temporary well installation activities were conducted on February 8, 2012. Several direct-push (Geoprobe®) boreholes were completed during the investigation (see Figure 2), with three of the boreholes fitted with temporary 1" PVC monitoring wells (TMWs). Boreholes were advanced approximately 6 to 7 feet into the saturated overburden soils with bottom depths approximately 20 feet below ground surface (fbgs). All direct-push boreholes were advanced using 1.5-inch diameter by 4-foot long macro-core samplers. Continuous 4-foot sample cores were retrieved from each boring location in clear PVC sleeves to allow for field characterization of the subsurface lithology. Benchmark personnel scanned each 4-foot core for total volatile organic vapors with a MiniRae 3000 PID equipped with a 10.6 eV lamp and noted visual and/or olfactory observations.

2.2.1 Groundwater Sample Collection

Groundwater samples were collected on February 8-9, 2012 using dedicated mini-bailers and transferred to laboratory-provided pre-preserved sample vials for analysis of TCL

VOCs. One groundwater sample collected from TMW-03 was also analyzed for TCL SVOCs. The samples were cooled to 4 °C in the field, and transported under Chain-of-Custody to TestAmerica Laboratories, Inc. Similar to the soil/fill samples, a level IV (equivalent NYSDEC Category B) laboratory deliverables report was prepared and site-specific quality assurance/quality control (QA/QC) samples, including a matrix spike/matrix spike duplicate (from TMW-02) was collected to assist in evaluation of the reliability of the data.

2.2.2 Temporary Well Abandonment

Upon completion of groundwater sampling, all three temporary wells were manually pulled and backfilled with surrounding soil/fill material to match existing grade.

2.3 Petroleum-Impacted Area Investigation

During the investigation, petroleum-impacts were identified within the saturated native sediments in borehole SB-4. Specifically, petroleum-like odors, a maximum PID reading of approximately 134 parts per million, and a slight sheen were encountered at the 14 to 16 fbgs interval. Accordingly, the NYSDEC petroleum spills hotline was informed of the findings and Spill Number 1112887 was assigned to the Site. Boring SB-4 was completed as a temporary well (deemed "TMW-3") for purposes of characterizing the groundwater within the apparent spill area.

Subsequently, five (5) additional boreholes, designated as SB-3 and SB-5 through SB-8, were completed in the vicinity of SB-4 in order to delineate the horizontal and vertical extents of those impacts (see Figure 2). All boreholes were advanced approximately 6 to 7 feet into the saturated overburden soils with bottom depths approximately 20 fbgs as previously described. Benchmark personnel examined and classified (via USCS) all retrieved sample cores, scanned each for total volatile organic vapors with a PID, and noted all visual and/or olfactory observations.

3.0 INVESTIGATION FINDINGS

A general discussion of field observations recorded during this investigation as well as an assessment of the analytical results for soil/fill and groundwater are presented in this section. Test pit descriptions and field measurements are summarized on Table 1 and borehole logs are presented in Appendix A. Soil/fill and groundwater sample results are summarized in Tables 2 and 3, respectively (only those parameters detected at a minimum of one sample location are presented). Sample concentrations detected above the comparative criteria are highlighted in each table, where applicable. The full laboratory reports are provided in Appendix B and representative project photos are presented in Appendix C.

3.1 Soil/Fill

3.1.1 Field Observations

Test pit locations are illustrated on Figure 2. Each test pit was completed to native soil, the top of groundwater, or the practical reach of the excavator, whichever occurred first. At each location, Benchmark recorded pertinent field observations including fill types, depth to native soil, visual or olfactory evidence of contamination, and PID readings (see Table 1).

As presented on Table 1 and generally shown in Appendix C, soil/fill material was encountered at 19 of the 20 test pit locations at varying depths, and was typically comprised of Sandy Lean Clay with apparent incinerator ash, gravel, and cinders intermingled with fragments of brick, wood, and glass. Soil/fill was not observed at test pit TP-10-2012. Native soil underlying the soil/fill, when encountered, was generally described as Poorly Graded Sand with Silt or Silty Sand. Native soil was not encountered in test pits TP-06-2012 (14 fbgs) and TP-17-2012 (17 fbgs).

During the course of the test pit investigation field indication of potential impacts were identified at test pit TP-03-2012. Within this test pit, saturated native Poorly Graded Sand with Gravel soil (14 to 16 fbgs) exhibited a mild odor and PID readings of approximately 7 parts per million. A subsequent boring investigation in the vicinity of this test pit was performed and is described in Section 3.3. No other visual impacts, other than general fill materials, were identified at the Site.

3.1.2 Soil/Fill Analytical Results

Table 2 presents a comparison of the surface and subsurface soil/fill data to health-based Soil Cleanup Objectives (SCOs) for unrestricted use, residential, and restricted residential use scenarios per 6 NYCRR Part 375. Unrestricted use SCOs are presented as a basis for comparison against the concentrations that might be expected in virgin soils not subjected to chemical releases or biased by fill containing non-soil materials. Restricted residential SCOs are presented as a basis for comparison against the "reasonably-anticipated future use scenario" for the Site. For the subject property, redevelopment as a charter school with outdoor ball fields is contemplated. The NYSDEC has determined that restricted residential SCOs are appropriate cleanup criteria where active recreational activities may occur.

3.1.2.1 Surficial Soil/Fill Results

No PCBs were detected above the laboratory analytical detection limit in any of the ten surficial soil samples. As indicated on Table 2, the surficial samples were also analyzed for VOCs with no constituents detected above the SCOs.

Two surficial samples (0 to 2 fbgs) from test pits TP-03-2012 and TP-15-2012 exhibited one or more exceedances of the comparative criteria for SVOCs. Specifically, several exceedances of the restricted residential SCOs were identified for the carcinogenic polyaromatic hydrocarbon (cPAH) fraction of the SVOCs. These included benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene. In addition to those compounds, benzo(k)fluoranthene and chrysene were detected in the same surface sample locations above the unrestricted and/or residential SCOs.

Metals data indicate exceedances of the restricted SCOs for several constituents and sample locations, including: arsenic (TP-09-2012), barium (TP-03-2012 and TP-15-2012), and lead (TP09-2012 and TP-15-2012). In addition to those metals, lead (TP-03-2012, TP-11-2012, and TP-17-2012) and mercury (TP-11-2012) were detected in the above the unrestricted SCO.

No pesticides were detected above the restricted residential SCO. Two pesticide compounds were detected at concentrations exceeding the unrestricted SCO at only one test pit (TP-15-2012).

3.1.2.2 Subsurface Soil/Fill Analytical Results

Subsurface soil/fill data is summarized on Table 2. Metals data indicate one exceedance of the restricted residential SCO for lead at test pit TP-17-2012 (6'-17').

3.2 Groundwater

Table 3 summarizes the groundwater analytical data from temporary wells TWM-1 through TMW-3 (see Figure 2). These results have been compared to the Class GA Groundwater Quality Standards and Guidance Values (GWQS/GVs) per NYSDEC June 1998 Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1. As shown in the table, there were no VOCs detected in well TMW-1 above the GWQSs. Chlorobenzene was detected at a concentration slightly above the GWQS at well TMW-2. Benzene, isopropylbenzene and naphthalene were all detected at concentrations above their respective GWQSs at well TWM-3.

3.3 Petroleum-Impacted Area Assessment

Five borings, identified as SB-3 and SB-5 through -08, were advanced in the vicinity of SB-4 to delineate vertical and horizontal impacts identified at that location (see Figure 2). Based on the borehole delineation, the petroleum-impacted area measured approximately 90 feet by 100 feet and was generally present within the 12 to 14 fbgs saturated interval (see Figure 2). Using these dimensions, approximately 670 CY of petroleum-impacted material is estimated. This estimate is limited to the information obtained from the six borings advanced during this investigation and may be larger due to any unidentified/unknown subsurface conditions encountered during actual remediation.

4.0 SUMMARY & CONCLUSIONS

As discussed in Section 3.0, apparent petroleum-impacted saturated soils in the vicinity of soil boring SB-4/TMW-3 necessitated informing the NYSDEC Petroleum Spills Hotline of the finding and issuance of a spill number (1112887). Groundwater concentrations in SB-3 also exceeded Class GA standards. Accordingly, remedial measures will be required in that area of the Site.

In addition to the petroleum-impacts, inorganics (metals) and cPAHs are present in surficial soil/fill (0 to 2 fbgs) at concentrations above the health-based SCOs for the restricted residential use category, which the NYSDEC (in consultation with the New York State Department of Health) has deemed appropriate comparative criteria where active recreational activities may occur, such as ball fields. In particular, concentrations of metals exceeding the restricted residential SCOs were reported for arsenic in test pit TP-09-2012, barium in test pits TP-03-2012 and TP-15-2012, and lead in test pits TP-09-2012 and TP-15-2012. Shallow soils at TP-03-2012 and TP-15-2012 also exhibited exceedances of the restricted residential SCOs for several cPAHs. The presence of these elevated metals concentrations in the surficial or near-surface soil/fill samples indicates the need for cleanup measures to prevent adverse exposures from incidental ingestion, contact, and/or particulate inhalation following redevelopment. Absent these measures the site would not be considered safe under the current regulations for use as a school property with active outdoor recreation areas.

Moreover, the presence of elevated lead levels in subsurface soil at TP-17-2012 as well as the general presence of non-soil fill materials in the subsurface, particularly incinerator ash and cinders, indicates that subsurface fill will need to be appropriately managed during and following redevelopment. This would involve assuring that excavated subsurface materials are: characterized and deemed compliant with restricted residential SCOs; disposed offsite at a permitted solid waste disposal facility; covered onsite (assuming no gross contamination is evident) beneath two feet of clean cover soil or hardscape; or potentially reused offsite as general fill where restrictions are in place to prevent unacceptable exposure (e.g., at a site where an easement or deed restriction only permits industrial use).

5.0 DECLARATION/LIMITATIONS

Benchmark personnel monitored all intrusive activities during the Supplemental Phase II Site investigation at the 154 Ogden Street site according to generally accepted practices and the scope of work provided to South Buffalo Charter Schools by Benchmark.

This report has been prepared for the exclusive use of South Buffalo Charter Schools. The contents of this report are limited to information available at the time of the site investigation activities and to data referenced herein, and assume all referenced information sources to be true and accurate. The findings herein may be relied upon only at the discretion of South Buffalo Charter Schools. Use of or reliance upon this report or its findings by any other person or entity is prohibited without written permission of Benchmark Environmental Engineering & Science, PLLC.

6.0 REFERENCES

1. LCS Inc., *Phase I Environmental Site Assessment Report*, 154 South Ogden Street, Buffalo, NY, prepared for Mr. Garry Kikutis c/o Inez Robinson, RBS Citizens, NA, Real Estate Risk Services, July 26, 2011.

2. Empire Geo-Services, Inc., *Report of Environmental Test Pit Investigation*, Proposed Charter School, 154 South Ogden Street, Buffalo, NY, prepared for South Buffalo Charter School c/o Cannon Construction Services, December 22, 2011.

3. New York State Department of Environmental Conservation. *Draft DER-10; Technical Guidance for Site Investigation and Remediation*. November 2009.

TABLES

TABLE 1

TEST PIT SUMMARY

154 South Ogden Street
Buffalo, New York

Location	Date	Total Depth (fbgs)	Length (feet)	Width (feet)	Depth to Water (fbgs)	Visual/ Olfactory (depth, fbgs)	Fill Thickness (fbgs)	Sample Depths (fbgs)	Descritption (ASTM D2488: Visual-Manual Procedure)	PID Readings (ppm)
TP-01-2012	2/8/2012	16.0	13.0	3.0	13.5	Fill	9.0	NA	(0.0 -1.0) SANDY LEAN CLAY w/ GRAVEL & FILL: Dark brown, moist, mostly low plasticity fines, some fine sand, little fine to coarse gravel, asphalt concrete and orange brick debris (1.0 - 9.0) SILTY SAND w/ FILL: Dark brown/black, moist, mostly fine sand, some non-plastic fines, with brick, cloth, wood, glass. (9.0-16.0) POORLY GRADED SAND w/ SILT: Brown, moist to wet, mostly fine sand, few non-plastic fines, trace fine gravel (sub-rounded), loose when disturbed.	0.0
TP-02-2012	2/7/2012	16.0	13.0	4.0	14.0	Fill	11.0	NA	(0.0 - 6.0) SANDY LEAN CLAY w/ GRAVEL & FILL: Dark brown, moist, mostly low plasticity fines, some fine sand, little fine to coarse gravel (angular), asphalt, concrete, orange brick. (6.0-11.0) SILTY SAND w/ FILL: Black, moist, mostly fine sand, some non-plastic fines, orange brick, wood, 4-inch steel pipes, cloth, rubber tube. (11.0-16.0) SILTY SAND: Grey/black, moist to wet, mostly fine sand, little non-plastic fines, loose when disturbed.	0.0
TP-03-2012	2/7/2012	16.0	10.0	3.0	14.0	Fill Petroleum-like Odor (14.0 - 15.0)	11.0	0.0 - 2.0 11.0 - 13.0	(0.0 - 6.0) SANDY LEAN CLAY w/ GRAVEL & FILL: Dark brown, moist, mostly low plasticity fines, some fine sand, little fine to coarse gravel (angular), asphalt, concrete, orange brick. (6.0 - 11.0) FILL: White/Red, moist, incinerator ash, soft, loose when disturbed, (11.0 - 14.0) SILTY SAND: Dark grey, moist to wet (12.0 fbgs), mostly fine sand, some to trace non-plastic fines, loose (14.0 - 16.0) POORLY GRADED SAND w/ GRAVEL: Dark grey, wet, mostly fine sand, some sub-rounded fine to coarse gravel, trace non-plastic fines, loose, rapid dilatancey.	7.0 (14.0 - 15.0)
TP-04-2012	2/7/2012	16.0	13.0	3.0	13.0	Fill	15.0	0.0 - 2.0 6.0 - 15.0	(0.0 - 6.0) SANDY LEAN CLAY w/ GRAVEL & FILL: Dark brown, moist, mostly low plasticity fines, some fine sand, few fine to coarse gravel (angular), asphalt, concrete and orange brick. (6.0 - 15.0) SILTY SAND w/ FILL: Black, moist to wet, mostly fine sand, little non-plastic fines, piping, brick wood (burnt), steel debris, cloth, (15.0 - 16.0) SILTY SAND: Grey/black, wet, mostly fine sand, little non-plastic fines, loose when disturbed.	0.0
TP-05-2012	2/7/2012	14.0	13.0	3.0	12.0	Fill	13.0	0.0 - 2.0	(0.0 - 13.0) SANDY LEAN CLAY w/ FILL: Dark brown/black, moist to wet (12.0 fbgs), mostly low plasticity fines, some fine sand, few fine to coarse gravel (angular), asphalt, concrete and orange brick, broken square steel box 6-foot x 3-foot (~10.0 fbgs and empty). (13.0 - 14.0) POORLY GRADED SAND w/ SILT: Grey, wet, mostly fine sand, few non-plastic fines, few coarse gravel (sub-rounded), loose, rapid dilatancey.	0.0
TP-06-2012	2/8/2012	14.0	13.0	5.0	11.0	Fill	14.0	NA	(0.0 - 14.0) POORLY GRADED SAND w/ SILT and FILL: Brown, moist to wet, mostly fine sand, few non-plastic fines, loose, roots, wood, brick.	0.0
TP-07-2012	2/8/2012	13.0	13.0	4.0	10.0	Fill	8.0	NA	(0.0 - 8.0) FILL w/ SILTY SAND: Black, moist, mostly brick and wood debris with some fine sand and little non-plastic fines. (8.0 - 13.0) POORLY GRADED SAND: Brown, wet, mostly fine sand, trace non-plastic fines, coarse gravel (sub-rounded) at bottom, loose when disturbed	0.0
TP-08-2012	2/8/2012	12.0	13.0	3.0	12.0	Fill	5.0	NA	(0.0 - 5.0) FILL: Red/white, incinerator ash, wood, glass (whole bottles), loose. (5.0 - 12.0) POORLY GRADED SAND: Brown, moist to wet, mostly fine sand, trace non-plastic fines, trace fine gravel, loose.	0.0

TABLE 1

TEST PIT SUMMARY

154 South Ogden Street
Buffalo, New York

Location	Date	Total Depth (fbgs)	Length (feet)	Width (feet)	Depth to Water (fbgs)	Visual/ Olfactory (depth, fbgs)	Fill Thickness (fbgs)	Sample Depths (fbgs)	Descritption (ASTM D2488: Visual-Manual Procedure)	PID Readings (ppm)
TP-09-2012	2/8/2012	16.0	13.0	3.0	13.5	Fill	4.0	(0.0 - 2.0)	(0.0 - 4.0) FILL: Red/white/grey, incinerator ash, wood, glass (whole bottles), loose. (4.0 - 16.0) POORLY GRADED SAND: Brown, moist to wet, mostly fine sand, trace non-plastic fines, trace fine gravel, loose.	0.0
TP-10-2012	2/8/2012	9.0	13.0	5.0	6.0	Fill	0.0	0.0 - 2.0	(0.0 - 9.0) SILTY SAND: Brown with grey, moist to wet, mostly fine sand, little non-plastic fines grading to trace, loose.	0.0
TP-11-2012	2/7/2012	16.0	13.0	3.0	14.5	Fill	7.0	0.0 - 2.0	(0.0 - 7.0) SANDY LEAN CLAY w/ FILL:Dark brown/black, moist, mostly low plasticity fines, some fine sand, few fine to coarse gravel (angular), asphalt, concrete and orange brick. (7.0 - 16.0) POORLY GRADED SAND: Brown/grey, moist to wet, mostly fine sand, trace non-plastic fines, few fine and coarse gravels (sub-rounded), loose.	0.0
TP-12-2012	2/7/2012	16.0	13.0	3.0	15.0	Fill	11.0	NA	(0.0 - 11.0) SANDY LEAND CLAY w/ FILL: Dark brown/black, moist, mostly low plasticity fines, some fine sand, few fine to coarse gravel (angular), asphalt, concrete, orange brick, 4-inch plastic piping. (11.0 - 16.0) SILTY SAND: Brown/grey, mostly fine sand, little to trace non-plastic fines, few sub-rounded coarse gravel, loose.	0.0
TP-13-2012	2/7/2012	16.5	13.0	3.0	15.5	Fill	7.0	NA	(0.0 - 7.0) SANDY LEAN CLAY w/ FILL: Dark brown, moist, mostly low plasticity fines, some fine sand, few fine to coarse gravel (angular), asphalt concrete, orange brick. (7.0 - 10.0) SANDY LEAN CLAY: Dark grey, moist, mostly low plasticity fines, some fine sand, soft, rootlets (10.0 - 16.0) POORLY GRADED SAND: Dark grey, moist to wet, mostly fine sand, trace non-plastic fines, loose when disturbed	0.0
TP-14-2012	2/7/2012	17.0	13.0	3.0	16.0	Fill	8.0	0.0 - 2.0	(0.0 - 8.0) SANDY LEAN CLAY w/ FILL: Dark brown, moist, mostly low plasticity fines, some fine sand, fine to coarse gravel, asphalt, concrete (some over 1 foot in size), orange brick, stiff. (8.0 -12.0) SANDY LEAN CLAY: Brown/grey, moist, mostly non-plastic fines, some fine sand, medium dense. (12.0 - 17.0) SILTY SAND w/ GRAVEL: Brown/grey, moist to wet (16.0 fbgs), mostly fine sand, some non-plastic fines, little sub-rounded coarse gravel, loose.	0.0
TP-15-2012	2/8/2012	14.0	13.0	4.0	13.0	Fill	11.0	0.0 - 2.0	(0.0 - 11.0) SANDY LEAN CLAY w/ FILL: Dark brown, moist, mostly low plasticity fines, some fine sand, little fine to coarse gravel, asphalt, concrete, orange brick, steel, loose when disturbed. (11.0 - 14.0) SITLY SAND: Brown, moist to wet (13.0 fbgs), mostly fine sand, few non-plastic fines, medium dense, loose when disturbed.	0.0
TP-16-2012	2/8/2012	14.0	13.0	6.0	13.5	Fill	12.0	NA	(0.0 - 12.0) SANDY LEAN CLAY w/ FILL: Dark brown to black, moist, mostly low plasticity fines, some fine sand, little fine to coarse gravel, medium dense, loose when disturbed, wood, asphalt, concrete, orange brick, steel piping (12.0 - 14.0) SILTY SAND: Grey/brown, wet (13.5 fbgs), mostly fine sand, few non-plastic fines, medium dense, loose when disturbed.	0.0

TABLE 1

TEST PIT SUMMARY

154 South Ogden Street
Buffalo, New York

Location	Date	Total Depth (fbgs)	Length (feet)	Width (feet)	Depth to Water (fbgs)	Visual/ Olfactory (depth, fbgs)	Fill Thickness (fbgs)	Sample Depths (fbgs)	Descritption (ASTM D2488: Visual-Manual Procedure)	PID Readings (ppm)
TP-17-2012	2/7/2012	17.0	13.0	6.0	17.0	Fill	17.0	0.0 - 2.0 6.0 - 17.0	(0.0 - 17.0) SANDY LEAN CLAY w/ FILL: Dark brown, moist, mostly low plasticity fines, some fine sand, little fine and coarse gravel, asphalt, concrete, orange brick, steel piping, brick, wood, steel, cloth, hot water tank.	0.0
TP-18-2012	2/7/2012	18.0	13.0	3.0	17.5	Fill	5.0	NA	(0.0 - 5.0) SANDY LEAN CLAY w/ FILL: Dark brown, moist, mostly low plasticity fines, some fine sand, fine to coarse gravel (angular), medium dense, loose when disturbed, rootlets, asphalt, concrete, orange brick. (5.0 - 18.0) POORLY GRADED SAND w/ GRAVEL: Dark brown/grey, moist to wet (17.5 fbgs), mostly fine sand, few non-plastic fines, little fine to coarse gravel, loose.	0.0
TP-19-2012	2/8/2012	17.0	13.0	3.0	None	Fill	3.0	NA	(0.0 - 3.0) SANDY LEAN CLAY w/ FILL: Dark brown, moist, mostly low plasticity fines, some fine sand, fine to coarse gravel, asphalt, concrete, orange brick. (3.0 - 17.0) SILTY SAND: Dark brown/grey, moist, mostly fine sand, little non-plastic fines, medium dense, loose when disturbed, rootlets (upper 5.0 fbgs).	0.0
TP-20-2012	2/8/2012	17.0	13.0	4.5	16.0	Fill	7.0	0.0 - 2.0	(0.0 - 7.0) POORLY GRADED SAND w/ GRAVEL & FILL: Dark brown, moist, mostly fine sand, few non-plastic fines, little fine to coarse gravel, concrete, orange brick, steel debris, medium dense. (7.0 - 17.0) POORLY GRADED SAND: Brown, moist to wet (16.0 fbgs), mostly fine sand, few non-plastic fines, roots, loose.	0.0

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TABLE 2

SUMMARY OF SOIL/FILL ANALYTICAL RESULTS

154 South Ogden Street
Buffalo, New York

Parameter	SCOs			Test Pit Location & Sample Depth (fbgs)												
	Unrestricted (mg/kg)	Residential (mg/kg)	Restricted Residential (mg/kg)	TP-03-2012 (0.0 - 2.0)	TP-03-2012 (11.0 - 13.0)	TP-04-2012 (0.0 - 2.0)	TP-04-2012 (6.0 - 15.0)	TP-05-2012 (0.0 - 2.0)	TP-09-2012 (0.0 - 2.0)	TP-10-2012 (0.0-2.0)	TP-11-2012 (0.0 - 2.0)	TP-14-2012 (0.0 - 2.0)	TP-15-2012 (0.0-2.0)	TP-17-2012 (0.0 - 2.0)	TP-17-2012 (6.0 - 17.0)	TP-20-2012 (0.0 - 2.0)
TCL Volatile Organic Compounds (VOCs) - ug/L																
Methylene Chloride	0.05	51	100	0.0034 J	--	0.0041 J	--	ND	0.0049 J	0.003 J	0.0032 J	0.004 J	0.0043 J	0.004 J	--	0.004 J
TCL Semi-Volatile Organic Compounds (SVOCs) - mg/kg																
2-Methylnaphthalene	--	--	--	0.024 J	--	ND	--	ND	0.035 J	ND	0.015 J	ND	ND	ND	--	0.046 J
Acenaphthene	20	100	100	0.12 J	--	ND	--	ND	0.015 J	ND	ND	ND	0.31 J	ND	--	0.8 J
Acenaphthylene	100	100	100	0.069 J	--	ND	--	ND	0.1 J	ND	0.022 J	ND	ND	ND	--	0.015 J
Anthracene	100	100	100	0.42	--	0.044 J	--	ND	0.091 J	ND	0.035 J	0.22 J	1 J	ND	--	0.19
Benzo(a)anthracene	1	1	1	**1.1**	--	0.16 J	--	0.29 J	0.35	ND	0.16 J	0.59 J	**3.2**	0.13 J	--	0.32
Benzo(a)pyrene	1	1	1	**1.2**	--	0.2	--	0.27 J	0.52	ND	0.14 J	0.62 J	**4.1**	ND	--	0.28
Benzo(b)fluoranthene	1	1	1	**1.5**	--	0.2	--	0.47 J	0.91	ND	0.26	0.85 J	**5**	0.14 J	--	0.57 J
Benzo(g,h,i)perylene	100	100	100	0.32	--	0.061 J	--	ND	0.22	ND	0.052 J	ND	1.1	ND	--	0.11 J
Benzo(k)fluoranthene	0.8	1	3.9	**0.88**	--	0.17 J	--	0.21 J	0.44	ND	0.13 J	0.42 J	**2.2**	0.097 J	--	0.26
Biphenyl	--	--	--	ND	--	ND	--	ND	ND	ND	ND	ND	ND	ND	--	0.016 J
Carbazole	--	--	--	0.16 J	--	ND	--	ND	0.075 J	ND	ND	ND	0.39 J	ND	--	0.095 J
Chrysene	1	1	3.9	**1**	--	0.18 J	--	0.28 J	0.46 J	ND	0.15 J	0.6 J	**3.1**	0.068 J	--	0.32
Dibenz(a,h)anthracene	0.33	0.33	0.33	0.12 J	--	0.02 J	--	ND	0.073 J	ND	ND	ND	**0.39 J**	ND	--	ND
Dibenzofuran	100	--	--	0.072 J	--	ND	--	ND	0.018 J	ND	ND	ND	ND	ND	--	0.08 J
Fluoranthene	100	100	100	2.3	--	0.35	--	0.51 J	0.73	ND	0.27	1.1 J	5.9	0.16 J	--	0.75
Fluorene	30	100	100	0.18 J	--	ND	--	ND	0.027 J	ND	ND	ND	0.34 J	ND	--	0.11 J
Indeno(1,2,3-cd)pyrene	0.5	0.5	0.5	0.35	--	0.065 J	--	ND	0.2 J	ND	0.06 J	0.25 J	**1.2 J**	ND	--	0.11 J
Naphthalene	12	100	100	0.043 J	--	ND	--	ND	0.029 J	ND	ND	ND	ND	ND	--	0.16 J
Phenanthrene	100	100	100	1.6	--	0.16 J	--	0.29 J	0.41	ND	0.13 J	0.85 J	4	0.12 J	--	0.76
Pyrene	100	100	100	1.7	--	0.29	--	0.41 J	0.51	ND	0.2	0.86 J	5.2	ND	--	0.54
RCRA Metals - mg/kg																
Arsenic	13	16	16	6.3	4.8	7.8	5.7	9.2	**16.4**	4.8	9	7.4	6.5	9.7	8.4	5.1
Barium	350	350	400	**470**	--	110	--	92.6	272	51.8	127	92.5	**484**	86	--	38.8
Cadmium	2.5	2.5	4.3	0.75	--	0.28	--	0.36	1.4	0.28	0.94	0.36	1.1	0.39	--	0.37
Chromium	30	36	180	21.4	--	18.7	--	21.2	13.9	8.7	21.5	16.4	16.9	19.2	--	7.6
Lead	63	400	400	**264**	10.1	18.9	190	35.4	**450**	8	**156**	45	**840**	**76.4**	**2400**	25.3
Silver	2	36	180	ND	--	ND	--	ND	ND	ND	1.5	ND	ND	ND	--	ND
Cyanide	27	27	27	NA	--	NA	--	NA	NA	NA	NA	ND	ND	NA	--	NA
Mercury	0.18	0.81	0.81	0.11	--	ND	--	0.037	0.061	0.024	**0.53**	0.082	0.16	0.07	--	0.04
Pesticides/Herbicides - mg/kg																
4,4'-DDE	0.0033	1.8	8.9	--	--	--	--	--	--	--	--	ND	**0.051 J**	--	--	--
4,4'-DDT	0.0033	1.7	7.9	--	--	--	--	--	--	--	--	ND	**0.46 J**	--	--	--
Methoxychlor	--	--	--	--	--	--	--	--	--	--	--	ND	0.069 J	--	--	--
TCL PCBs - mg/kg																
All Aroclors	0.1	1	1	ND	--	ND	--	ND	ND	ND	ND	ND	ND	ND	--	ND

Notes:
1. Only those compounds detected above the laboratory reporting limit are presented in this table.
2. J = indicates an estimated value.
3. ND= not detected above laboratory detection limits.
4. NA = Not sampled for.
5. B = Was found in associated Blank.

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TABLE 3

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS

154 South Ogden Street
Buffalo, New York

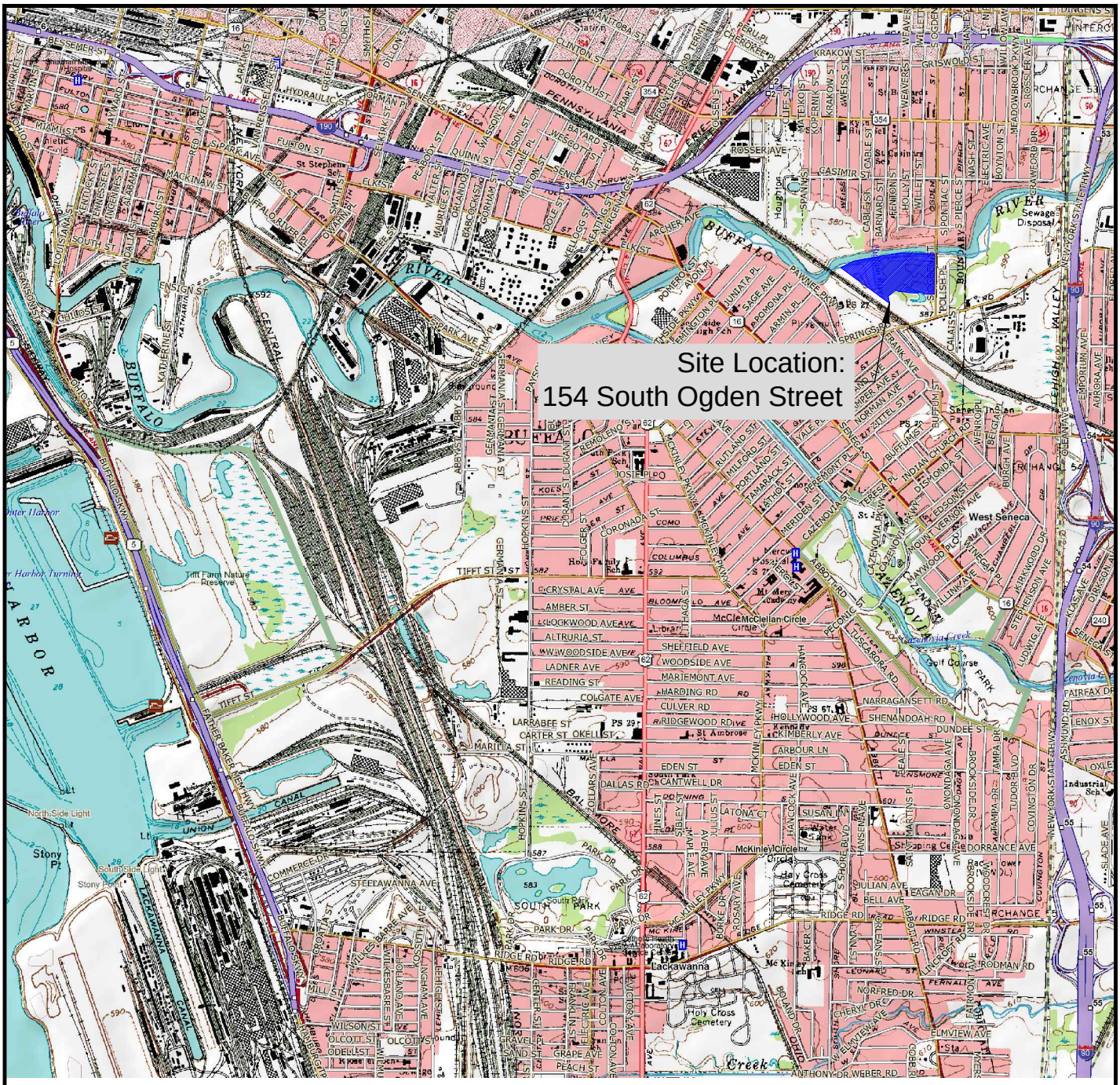
Parameter	Clas GA Standards	Monitoring Location		
		TMW-1	TMW-2	TMW-3
TCL Volatile Organic Compounds (VOCs) - ug/L				
2-Butanone (MEK)	50	1.3 J	ND	1.3 J
1,2-Dichlorobenzene	3	ND	2.1	ND
Acetone	50	4.2 J	ND	ND
Benzene	1	ND	ND	**1.2**
Chlorobenzene	5	ND	**6.3**	0.78 J
Cyclohexane	--	ND	ND	3.2
Ethylbenzene	5	ND	ND	1.6
Isopropylbenzene	5	ND	ND	**25**
Methylcyclohexane	--	ND	ND	11
Methylene Chloride	5	1.3	0.59 J	ND
Toluene	5	ND	ND	0.54 J
Total Xylenes	15	ND	ND	6 J
TCL Semi-Volatile Organic Compounds (SVOCs) - ug/L				
Acenaphthene	20	--	--	0.42 J
Acetophenone	--	--	--	13
Di-n-butyl phthalate	50	--	--	0.39 JB
Naphthalene	10	--	--	**21 J**
Pyrene	50	--	--	0.36 J

Notes:
1. Only those compounds detected above the laboratory reporting limit are presented in this table.
2. J = indicates an estimated value.
3. ND= not detected above laboratory detection limits.
4. NA = Not sampled for.
5. B = Was found in associated Blank.

FIGURES

F:\CAD\Benchmark\South Buffalo Charter School\Figure 1; Site Location and Vicinity Map.dwg

FIGURE 1



N

3000' 0' 3000' 6000'

SCALE: 1 INCH = 3000 FEET
SCALE IN FEET
(approximate)

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0599

PROJECT NO.: 0249-012-001

DATE: MARCH 2012

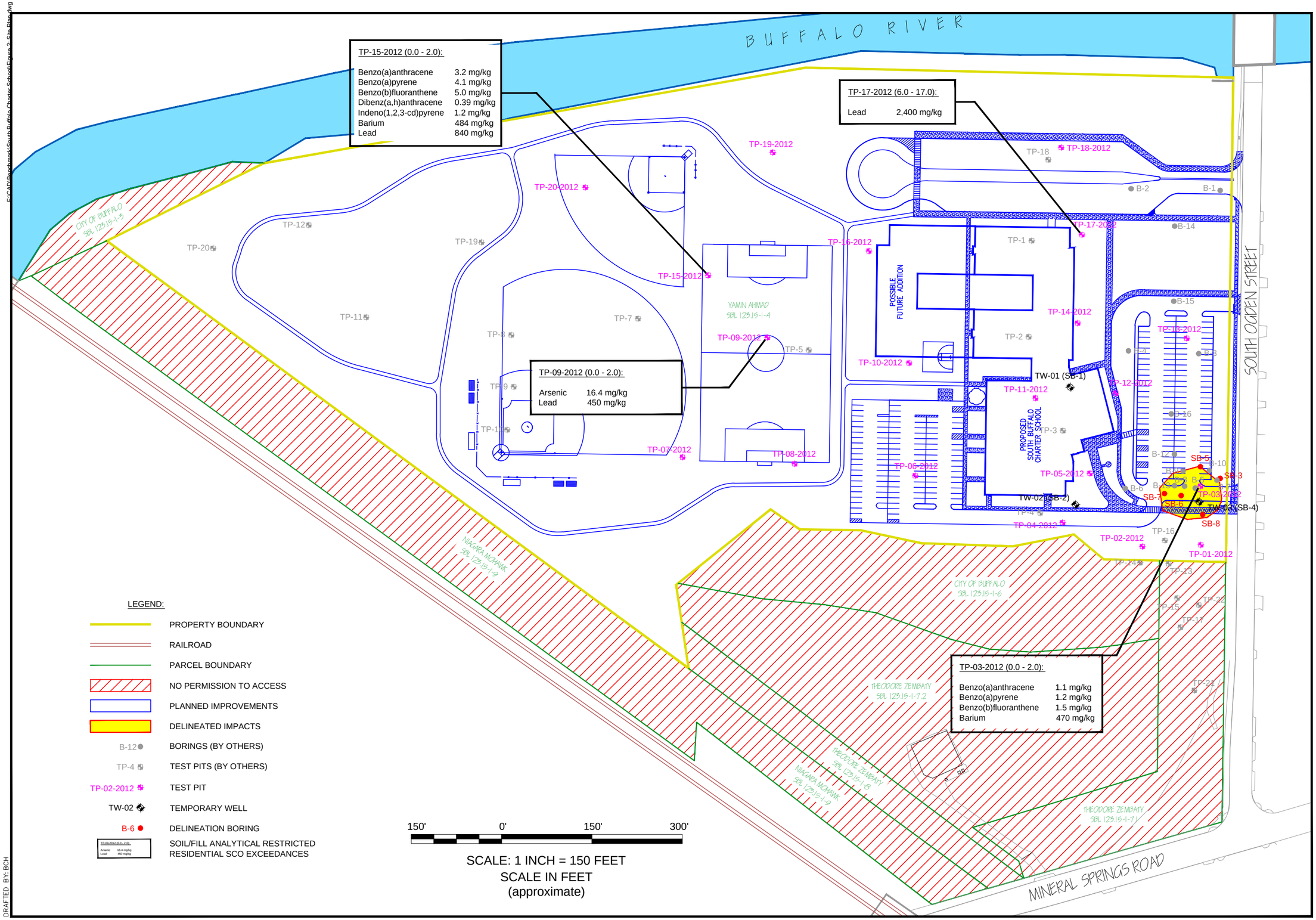
DRAFTED BY: BCH

SITE LOCATION AND VICINITY MAP

SUPPLEMENTAL PHASE II INVESTIGATION

154 SOUTH OGDEN STREET
BUFFALO, NEW YORK

PREPARED FOR
EYEZON ASSOCIATES, INC.



2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0599

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

JOB NO.: 0249-012-001

SITE PLAN

SUPPLEMENTAL PHASE II INVESTIGATION
154 SOUTH OGDEN STREET
BUFFALO, NEW YORK

PREPARED FOR
SOUTH BUFFALO CHARTER SCHOOL

FIGURE 2

DATE: MARCH 2016
DRAFTED BY: BCH

F:\CAD\Benchmark\South Buffalo Charter School\Figure 2 Site Plan.dwg

APPENDIX A

PROJECT FIELD FORMS

APPENDIX A-1

FIELD BOREHOLE/WELL COMPLETION LOGS

Project No: 0249-012-001

Borehole Number: SB-1/TMW-1

Project: Supplemental Phase II

A.K.A.:

Client: South Buffalo Charter School

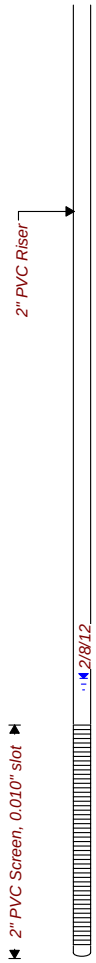
Logged By: TAB

Site Location: 154 South Ogden St. Buffalo NY

Checked By: BCH

TurnKey Environmental Restoration, LLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716) 856-0635

SUBSURFACE PROFILE			SAMPLE						
Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Sample No.	SPT N-Value	Recovery (ft)	Symbol	PID VOCs ppm (0 / 12.5 / 25)	Lab Sample	Well Completion Details or Remarks
-1.0	0.0	Ground Surface							
	0.0	***Sandy Lean Clay with Fill*** Brown, moist, mostly low plasticity fines, some fine sand, few coarse gravel (angular), concrete, orange brick, stiff.	C1	NA	1.7		0.0		
4.0							0.0		
			C2	NA	1,9		0.0		
	-8.0						0.0		
	8.0	***Silty Sand*** Dark grey, moist to wet (14.0 fbgs), mostly fine sand, little non-plastic fines, dense, rootletss, loose when disturbed.	C3	NA	2.0		0.0		
9.0							0.0		
			C4	NA	2.4		0.0		
14.0							0.0		
	-16.0								
	16.0	***Poorly Graded Sand with Gravel*** Dark grey, wet, mostly fine sand, trace non-plastic fines, little fine gravel, trace coarse (sub-rounded), loose when disturbed, rapid dilatency.	C5	NA	1.3		0.0		
19.0							0.0		
	-20.0								
	20.0	End of Borehole							



Drilled By: DDS Companies
Drill Rig Type: Geoprobe 54LT
Drill Method: Directpush w/ 4' macrocore
Comments:
Drill Date(s): 2/8/12

Hole Size: 3-inch
Stick-up: 0.4-inch
Datum: Mean sea level.

Sheet: 1 of 1

Project No: 0249-012-001

Borehole Number: SB-2/TMW-2

Project: Supplemental Phase II

A.K.A.:

Client: South Buffalo Charter School

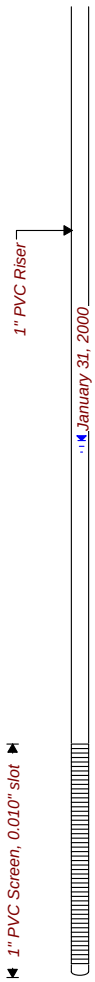
Logged By: TAB

Site Location: 154 South Ogden St. Buffalo NY

Checked By: BCH

TurnKey Environmental Restoration, LLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716) 856-0635

SUBSURFACE PROFILE			SAMPLE						
Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Sample No.	SPT N-Value	Recovery (ft)	Symbol	PID VOCs ppm (0 / 12.5 / 25)	Lab Sample	Well Completion Details or Remarks
-1.0	0.0	Ground Surface							
	0.0	***Sandy Lean Clay with Gravel and Fill*** Brown, moist, mostly low plasticity fines, some fine sand, few to some coarse gravel (angular), stiff concrete, orange, brick, wood.	C1	NA	3.0		0.0		
							0.0		
4.0			C2	NA	2.2		0.0		
							0.0		
9.0			C3	NA	2.0		0.0		
	-12.0						0.0		
	12.0	***Poorly Graded Sand with Silt*** Dark grey, moist to wet (13.0 fbgs), mostly fine sand, few to trace non-plastic fines, trace coarse gravel (sub-rounded), medium dense, loose when disturbed, rootlets.	C4	NA	2.9		0.0		
14.0							0.0		
			C5	NA	1.6		0.0		
19.0							0.0		
	-20.0								
	20.0	End of Borehole							



Drilled By: DDS Companies
Drill Rig Type: Geoprobe 54LT
Drill Method: Direct Push w/ 4' macrocore
Comments:
Drill Date(s): 2/9/12

Hole Size: 3-inch
Stick-up: 0.8-inch
Datum: Mean Sea Level

Sheet: 1 of 1

Project No: 0249-012-001

Borehole Number: SB-3

Project: Supplemental Phase II

A.K.A.:

Client: South Buffalo Charter School

Logged By: TAB

Site Location: 154 South Ogden St. Buffalo NY

Checked By: BCH

TurnKey Environmental Restoration, LLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716) 856-0635

SUBSURFACE PROFILE			SAMPLE						
Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Sample No.	SPT N-Value	Recovery (ft)	Symbol	PID VOCs ppm (0 – 12.5 – 25)	Lab Sample	Well Completion Details or Remarks
0.0	0.0	Ground Surface							
	0.0	***Sandy Lean Clay with Gravel and Fill*** Reddish brown, mostly low plasticity fines, some fine sand, few coarse gravel (angular), asphalt pieces, stiff.	C1	NA	3.3		0.0 0.0		
5.0	-6.0		C2	NA	2.0		0.0 0.0		
	6.0	***Ash Fill*** White/grey, moist, ash, loose.							
	-8.0 8.0	***Silty Sand*** Brown, moist, mostly fine sand, little non-plastic fines, medium dense, loose when disturbed.	C3	NA	2,6		0.0 0.0		
10.0	-12.0								2/8/12
	12.0	***Poorly graded Sand with Gravel*** Brown, moist to wet (12.0 fbgs), mostly fine sand, trace non-plastic fines, little fine gravel (sub-rounded), trace coarse gravel (sub-rounded), rapid dilatency, loose when disturbed.	C4	NA	2.4		0.0 0.0		
15.0			C5	NA	0.5		0.0 0.0		
20.0	-20.0 20.0	End of Borehole							
25.0									

Drilled By: DDS Companies
Drill Rig Type: Geoprobe 54LT
Drill Method: Directpush w/ 4' macrocore
Comments:
Drill Date(s): 2/8/12

Hole Size: 3-inch
Stick-up: NA
Datum: Mean sea level.

Sheet: 1 of 1

Project No: 0249-012-001

Borehole Number: SB-4/TMW-03

Project: Supplemental Phase II

A.K.A.:

Client: South Buffalo Charter School

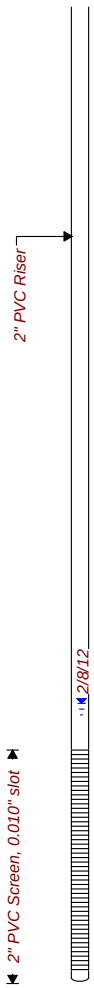
Logged By: TAB

Site Location: 154 South Ogden St. Buffalo NY

Checked By: BCH

TurnKey Environmental Restoration, LLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716) 856-0635

SUBSURFACE PROFILE			SAMPLE						
Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Sample No.	SPT N-Value	Recovery (ft)	Symbol	PID VOCs ppm (0 / 250 / 500)	Lab Sample	Well Completion Details or Remarks
-1.0	0.0	Ground Surface							
	0.0	***Sandy Lean Clay with Fill*** Reddish brown, mostly low plasticity fines, some fine sand, few coarse gravel (angular), stiff, concrete,orange brick	C1	NA	2.5		0.0		
4.0							0.0		
	-6.0 6.0	***Ash Fill*** White/grey, ash, very loose	C2	NA	2.3		0.0		
							0.0		
9.0			C3	NA	0.2		0.0		
							0.0		
	-12.0 12.0	***Poorly Graded Sand with Silt and Gravel*** Brown/grey/black, moist to wet (14.0 fbgs), mostly fine sand, little to trace non-plastic fines, few coarse gravel (sub-rounded), medium dense, loose when disturbed, rapid dilatency, petroleum like odor, sheen.					0.0		
14.0			C4	NA	2.6		134		
							0.0		
			C5	NA	2.5		0.0		
19.0									
	-20.0 20.0	End of Borehole							



Drilled By: DDS Companies
Drill Rig Type: Geoprope 54LT
Drill Method: Directpush w/ 4' macrocore
Comments:
Drill Date(s): 2/8/12

Hole Size: 3-inch
Stick-up: 0.9-inch
Datum: Mean sea level.

Sheet: 1 of 1

Project No: 0249-012-001

Borehole Number: SB-5

Project: Supplemental Phase II

A.K.A.:

Client: South Buffalo Charter School

Logged By: TAB

Site Location: 154 South Ogden St. Buffalo NY

Checked By: BCH

TurnKey Environmental Restoration, LLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716) 856-0635

SUBSURFACE PROFILE			SAMPLE						
Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Sample No.	SPT N-Value	Recovery (ft)	Symbol	PID VOCs ppm (0 – 12.5 – 25)	Lab Sample	Well Completion Details or Remarks
0.0	0.0	Ground Surface							
	0.0	***Sandy Lean Clay with Fill*** Reddish brown, moist, mostly low plasticity fines, some fine sand, few corse gravels (angular), stiff, orange brick, asphalt pieces.	C1	NA	3.6				
5.0			C2	NA	1.1				
	-8.0								
	8.0	***Silty Sand*** Brown, moist, mostly fine sand, some non-plastic fines, medium dense, loose when disturbed.	C3	NA	1.4				
10.0									
	-12.0								
	12.0	***Poorly Graded Sand with Silt*** Grey, moist to wet (16.0 fbgs), mostly fine sand, few grading to trace non-plastic fines, trace fine gravel (sub-rounded), medium dense, rapid dilatency, loose when disturbed.	C4	NA	1.7				
15.0			C5	NA	0.5				
	-20.0								
20.0	20.0	End of Borehole							
25.0									

Drilled By: DDS Companies
Drill Rig Type: Geoprobe 54LT
Drill Method: Directpush w/ 4' macrocore
Comments:
Drill Date(s): 2/8/12

Hole Size: 3-inch
Stick-up: NA
Datum:

Sheet: 1 of 1

Project No: 0249-012-001

Borehole Number: SB-6

Project: Supplemental Phase II

A.K.A.:

Client: South Buffalo Charter School

Logged By: TAB

Site Location: 154 South Ogden St. Buffalo NY

Checked By: BCH

TurnKey Environmental Restoration, LLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716) 856-0635

SUBSURFACE PROFILE			SAMPLE						
Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Sample No.	SPT N-Value	Recovery (ft)	Symbol	PID VOCs ppm (0 – 12.5 – 25)	Lab Sample	Well Completion Details or Remarks
0.0	0.0	Ground Surface							
	0.0	***Sandy Lean Clay with Fill*** Reddish brown, moist, mostly low plasticity fines, some fine sand, few coarse gravel (angular), stiff, orange brick, asphalt pieces, glass.	C1	NA	2.0		0.0 0.0		
5.0			C2	NA	3.4		0.0 0.0		
	-7.0 7.0	***Ash Fill*** White/grey, moist to wet (8.0 fbgs), ash, very loose.	C3	NA	1,8		0.0 0.0		
10.0	-11.0 11.0	***Poorly Graded Sand with Silt*** Dark grey/black, moist to wet (13.0 fbgs), mostly fine sand, few non-plastic fines, trace coarse gravel (sub-rounded), loose when disturbed, rapid dilatency, petroleum like odor, sheen.	C4	NA	4.9		0.0 11.1		2/8/12
15.0	-16.0 16.0	As above, grey.	C5	NA	2.8		0.0 0.0		
20.0	-20.0 20.0	End of Borehole							
25.0									

Drilled By: DDS Companies
Drill Rig Type: Geoprobe 54LT
Drill Method: Directpush w/ 4' macrocore
Comments:
Drill Date(s): 2/8/12

Hole Size: 3-inch
Stick-up: NA
Datum: Mean sea level.

Sheet: 1 of 1

Project No: 0249-012-001

Borehole Number: SB-7

Project: Supplemental Phase II

A.K.A.:

Client: South Buffalo Charter School

Logged By: TAB

Site Location: 154 South Ogden St. Buffalo NY

Checked By: BCH

TurnKey Environmental Restoration, LLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716) 856-0635

SUBSURFACE PROFILE			SAMPLE						
Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Sample No.	SPT N-Value	Recovery (ft)	Symbol	PID VOCs ppm (0 / 12.5 / 25)	Lab Sample	Well Completion Details or Remarks
0.0	0.0	Ground Surface							
	0.0	***Sandy Lean Clay with Fill*** Reddish brown, moist, mostly low plasticity fines, some fine sand, few coarse gravels (angular), stiff, orange brick, asphalt pieces, cinders.	C1	NA	2.7		0.0 / 0.0		
5.0			C2	NA	3.4		0.0 / 0.0		
	-8.0 8.0	***Ash Fill*** White/grey, moist, ash.	C3	NA	2.4		0.0 / 0.0		
10.0	-10.0 10.0	***Poorly Graded Sand with Silt.*** Grey, moist to wet (12.5 fbgs), mostly fine sand, few non-plastic fines, trace coarse gravel (sub-rounded), medium dense, loose when disturbed, slight petroleum-like odor (14.0 fbgs), sheen.	C4	NA	4.0		0.0 / 0.0		2/8/12
15.0	-16.0 16.0	As above, no petroleum odors or sheen.	C5	NA	1.2		0.0 / 0.0		
20.0	-20.0 20.0	End of Borehole							
25.0									

Drilled By: DDS Companies
Drill Rig Type: Geoprobe 54LT
Drill Method: Directpush w/ 4' macrocore
Comments:
Drill Date(s): 2/8/12

Hole Size: 3-inch
Stick-up: NA
Datum: Mean sea level

Sheet: 1 of 1

Project No: 0249-012-001

Borehole Number: SB-8

Project: Supplemental phase II

A.K.A.:

Client: South Buffalo Charter School

Logged By: TAB

Site Location: 154 South Ogden St. Buffalo NY

Checked By: BCH

TurnKey Environmental Restoration, LLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716) 856-0635

SUBSURFACE PROFILE			SAMPLE						
Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Sample No.	SPT N-Value	Recovery (ft)	Symbol	PID VOCs ppm (0 / 12.5 / 25)	Lab Sample	Well Completion Details or Remarks
0.0	0.0	Ground Surface							
	0.0	***Sandy Lean Clay with Fill*** Reddish brown, moist, low plasticity fines, some fine sand, few coarse gravel (angular), stiff, orange brick, asphalt pieces.	C1	NA	1.5		0.0 0.0		
5.0			C2	NA	0.5		0.0 0.0		
	-6.5 6.5	***Concrete***							
	-8.0 8.0	***Ash*** Grey/white, ash, very loose.	C3	NA	2.4		0.0 0.0		
10.0	-10.0 10.0	***Poorly Graded Sand with Silt and Gravel*** Brown/grey, moist to wet (14.0 fbgs), mostly fine sand, few non-plastic fines, trace to little fine gravel (sub-rounded), trace coarse gravel (sub-rounded), slight petroleum like odor.	C4	NA	1.7		0.0 0.0		2/8/12
15.0			C5	NA	1.4		0.0 0.0		
	-19.0 19.0	***Lean Clay with Sand*** Brown, wet, mostly medium plasticity fines, little fine sand, stiff. medium toughness, medium dry strength.							
20.0	-20.0 20.0	End of Borehole							
25.0									

Drilled By: DDS Companies
Drill Rig Type: Geoprobe 54LT
Drill Method: Directpush w/ 4' macrocore
Comments:
Drill Date(s): 2/8/12

Hole Size: 3-inch
Stick-up: NA
Datum: Mean Sea Level

Sheet: 1 of 1

APPENDIX A-2

GROUNDWATER MONITORING FORMS

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

GROUNDWATER FIELD FORM

Project Name: South Buffalo Charter School Date: 2/9/2012

Location: 154 South Ogden Project No.: 0429-012-001 Field Team: TAB

Well No.	**TMW-01**	Diameter (inches):	1"	Sample Date / Time:	2/9/2012
Product Depth (fbTOR):		Water Column (ft):	6.20	DTW when sampled:	
DTW (static) (fbTOR):	14.00	One Well Volume (gal)	0.26	Purpose: ☑ Direct Grab	☐ Direct Grab and Sample
Total Depth (fbTOR):	20.20	Total Volume Purged (gal):	###	Purge Method:	bailer

Time	Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
	0								
	1								
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	9								
	10								
Sample Information:									
8:45	S1	<.25	6.65	8	19.1	>1000	2.49	-116	greyish, no odor
	S2								

Well No.	**TMW-02**	Diameter (inches):	1"	Sample Date / Time:	2/9/2012
Product Depth (fbTOR		Water Column (ft):	5.00	DTW when sampled:	
DTW (static) (fbTOR):	15.22	One Well Volume (gal)	0.205	Purpose: ☑ Direct Grab	☐ Direct Grab and Sample
Total Depth (fbTOR):	20.22	Total Volume Purged (gal):	<.25	Purge Method:	bailer

Time	Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
	0								
	1								
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	9								
	10								
Sample Information:									
10:00	S1	<.25	6.78	8	1684	>1000	0.75	-69	greyish, musty odor
	S2								

REMARKS:

Note: All water level measurements are in feet, distance from top of riser.

Volume Calculation

Diam.	Vol. (g/ft)
1"	0.041
2"	0.163
4"	0.653
6"	1.469

Stabilization Criteria

Parameter	Criteria
pH	± 0.1 unit
SC	± 3%
Turbidity	± 10%
DO	± 0.3 mg/L
ORP	± 10 mV

PREPARED BY: T. Behrendt

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

GROUNDWATER FIELD FORM

Project Name: South Buffalo Charter School Date: 2/9/2012

Location: 154 South Ogden Project No.: 0429-012-001 Field Team: TAB

Well No.	**TMW-03**	Diameter (inches):	1"	Sample Date / Time:	2/9/2012
Product Depth (fbTOR):		Water Column (ft):	7.03	DTW when sampled:	
DTW (static) (fbTOR):	13.20	One Well Volume (gal)	0.29	Purpose: ☐ Direct Grab	☑ Direct Grab and Sample
Total Depth (fbTOR):	20.23	Total Volume Purged (gal):	###	Purge Method:	bailer/peristaltic *

Time	Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
	0 Initial								
	1								
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	9								
	10								
Sample Information:									
9:15	13.20	0.29	6.57	8.3	1921	>1000	2.25	-63	greyish, mothball odor
	S2								

Well No.		Diameter (inches):		Sample Date / Time:	
Product Depth (fbTOR		Water Column (ft):		DTW when sampled:	
DTW (static) (fbTOR):		One Well Volume (gal)		Purpose: ☐ Direct Grab	☐ Direct Grab and Sample
Total Depth (fbTOR):		Total Volume Purged (gal):		Purge Method:	bailer

Time	Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
	0 Initial								
	1								
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	9								
	10								
Sample Information:									
	S1								
	S2								

REMARKS:

* At TMW-3, VOCs sampled via bailer on 2/8/12, SVOCs via peristaltic pump on 2/9/13

Note: All water level measurements are in feet, distance from top of riser.

Volume Calculation

Diam.	Vol. (g/ft)
1"	0.041
2"	0.163
4"	0.653
6"	1.469

Stabilization Criteria

Parameter	Criteria
pH	± 0.1 unit
SC	± 3%
Turbidity	± 10%
DO	± 0.3 mg/L
ORP	± 10 mV

PREPARED BY: T. Behrendt

APPENDIX B

TEST AMERICA, INC. ANALYTICAL LABORATORY REPORTS

APPENDIX B-1

SURFACE SOIL/FILL

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-16017-1
Client Project/Site: Turnkey - 154 S. Ogden St. site

For:
Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Suite 300
Lackawanna, New York 14218

Attn: Mr. Bryan Hann

Authorized for release by:
2/24/2012 10:32:24 AM

Brian Fischer
Project Manager II
brian.fischer@testamericainc.com

LINKS

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Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16017-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F	MS or MSD exceeds the control limits

GC/MS Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD exceeds the control limits
F	MS or MSD exceeds the control limits
F	RPD of the MS and MSD exceeds the control limits
E	Result exceeded calibration range.

GC Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
F	MS or MSD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
F	MS or MSD exceeds the control limits

General Chemistry

Qualifier	Qualifier Description
F	MS or MSD exceeds the control limits
F	RPD of the MS and MSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 480-16017-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-16017-1

Comments
No additional comments.

Receipt
All samples were received in good condition within temperature requirements.

GC/MS VOA
Method(s) 8260B: The matrix spike (MS) recoveries for batch 51456 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

No other analytical or quality issues were noted.

GC/MS Semi VOA
Method(s) 8270C: The following sample contained one acid and/or one base surrogate outside acceptance limits: TP-14 (0-2) (480-16017-1 MS). The laboratory's SOP allows one acid surrogate and/or one base surrogate to be outside acceptance limits; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

Method(s) 8270C: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 51361 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method(s) 8270C: The following samples were diluted due to the nature of the sample matrix: TP-14 (0-2) (480-16017-1 MS), TP-15 (0-2) (480-16017-2). Elevated reporting limits (RLs) are provided.

Method(s) 8270C: The following samples were diluted due to the nature of the sample matrix: TP-14 (0-2) (480-16017-1), TP-14 (0-2) (480-16017-1 MSD), TP-17 (0-2) (480-16017-7), TP-5 (0-2) (480-16017-5). Elevated reporting limits (RLs) are provided.

Method(s) 8270C: The following compounds were outside control limits in the continuing calibration verification (CCV) associated with batch 52014: 2,4-Dinitrophenol and 4,6-Dinitro-2-methylphenol. These compounds are not classified as Calibration Check Compounds (CCCs) in the reference method. Due to the large number of analytes contained in the CCV, the laboratory's SOP allows for four analytes to be outside limits; therefore, the data have been reported.

Method(s) 8270C: The laboratory control sample (LCS) for preparation batch 51361 exceeded control limits for the following analyte: Atrazine. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

No analytical or quality issues were noted.

GC Semi VOA
Method(s) 8081A: The following samples were diluted due to the nature of the sample matrix : TP-14 (0-2) (480-16017-1), TP-15 (0-2) (480-16017-2), TP-14 (0-2) MS (480-16017-1 MS), TP-14 (0-2) MSD (480-16017-1 MSD). As such, surrogate recoveries are not reported, and elevated reporting limits (RLs) are provided.

Method(s) 8081A: Matrix Spike and Matrix Spike Duplicate recoveries for batch 51406 could not be recovered due to sample matrix interferences which required sample dilution. The associated laboratory control sample (LCS) met acceptance criteria.

Method(s) 8081A: All primary data is reported from the RTX-CLPI column.

Method(s) 8081A: The Performance Evaluation Mixture (PEM) (PEM 480-51644/2) has a calculated breakdown of 18.38% for Endrin which is outside control limits. The quality control spikes and continuing calibration verifications associated with this PEM are all compliant, and the samples are non-detects for the affected analyte therefore, the data have been reported.

Method(s) 8082: All primary data is reported from the ZB-5 column.

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Laboratory: TestAmerica Buffalo (Continued)

Method(s) 8082: The percent difference in a multi-component continuing calibration verification is assessed on the basis of the total amount, individual peak calculations are only listed for completeness.

Method(s) 8151A: The percent difference in the associated continuing calibration verification (CCV 480-51619/26) for the analytes 2,4-D, Silvex (2,4,5-TP), 2,4,5-T exceeded 15% on the STX-CLPI column, indicating a high bias. Associated samples are non-detect for these analytes, the data is unaffected.

Method(s) 8151A: The surrogate percent difference in the associated continuing calibration verification (CCV 480-51619/26) for 2,4-Dichlorophenylacetic acid exceeded 15% on the STX-CLPI column, indicating a high bias.

No other analytical or quality issues were noted.

Metals

Method(s) 6010B: The Serial Dilution (480-16017-1 SD) in batch 480-51352, exhibited results outside the quality control limits for barium, chromium, and lead. However, the Post Digestion Spike was compliant so no corrective action was necessary.

Method(s) 6010B: The Matrix Spike, TP-14 (0-2) (480-16017-1 MS), recovery for total barium in batch 480-51352 was outside control limits. The associated Matrix Spike Duplicate (MSD) and the Laboratory Control Sample (LCS SRM) recoveries met acceptance criteria, therefore no corrective action was necessary.

Method(s) 6010B: The following sample was diluted due to the presence of total manganese which interferes with total silver, chromium, and selenium: TP-3 (0-2) (480-16017-3). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

General Chemistry

Method(s) 9012A: The matrix spike / matrix spike duplicate (MS/MSD) precision for batch 51551 was outside control limits. The associated laboratory control sample (LCS) met acceptance criteria.TP-14 (0-2) (480-16017-1 MS), TP-14 (0-2) (480-16017-1 MSD)

Method(s) 9012A: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 51551 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.TP-14 (0-2) (480-16017-1 MSD)

No other analytical or quality issues were noted.

Organic Prep

Method(s) 3550B: The following samples required a Florisil clean-up to reduce matrix interferences: TP-14 (0-2) (480-16017-1), TP-14 (0-2) (480-16017-1 MS), TP-14 (0-2) (480-16017-1 MSD), TP-15 (0-2) (480-16017-2).

No other analytical or quality issues were noted.

Detection Summary

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16017-1

Client Sample ID: TP-14 (0-2) — Lab Sample ID: 480-16017-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	4.0	J	5.7	2.6	ug/Kg	1	☼	8260B	Total/NA
Anthracene	220	J	1900	49	ug/Kg	10	☼	8270C	Total/NA
Benzo(a)anthracene	590	J	1900	33	ug/Kg	10	☼	8270C	Total/NA
Benzo(a)pyrene	620	J	1900	46	ug/Kg	10	☼	8270C	Total/NA
Benzo(b)fluoranthene	850	J	1900	37	ug/Kg	10	☼	8270C	Total/NA
Benzo(k)fluoranthene	420	J	1900	21	ug/Kg	10	☼	8270C	Total/NA
Chrysene	600	J	1900	19	ug/Kg	10	☼	8270C	Total/NA
Fluoranthene	1100	J	1900	28	ug/Kg	10	☼	8270C	Total/NA
Indeno(1,2,3-cd)pyrene	250	J	1900	53	ug/Kg	10	☼	8270C	Total/NA
Phenanthrene	850	J	1900	40	ug/Kg	10	☼	8270C	Total/NA
Pyrene	860	J	1900	12	ug/Kg	10	☼	8270C	Total/NA
Arsenic	7.4		2.3		mg/Kg	1	☼	6010B	Total/NA
Barium	92.5		0.57		mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.36		0.23		mg/Kg	1	☼	6010B	Total/NA
Chromium	16.4		0.57		mg/Kg	1	☼	6010B	Total/NA
Lead	45.0		1.1		mg/Kg	1	☼	6010B	Total/NA
Mercury	0.082		0.022		mg/Kg	1	☼	7471A	Total/NA

Client Sample ID: TP-15 (0-2) — Lab Sample ID: 480-16017-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	4.3	J	5.8	2.7	ug/Kg	1	☼	8260B	Total/NA
Acenaphthene	310	J	2000	24	ug/Kg	10	☼	8270C	Total/NA
Anthracene	1000	J	2000	52	ug/Kg	10	☼	8270C	Total/NA
Benzo(a)anthracene	3200		2000	35	ug/Kg	10	☼	8270C	Total/NA
Benzo(a)pyrene	4100		2000	49	ug/Kg	10	☼	8270C	Total/NA
Benzo(b)fluoranthene	5000		2000	39	ug/Kg	10	☼	8270C	Total/NA
Benzo(g,h,i)perylene	1100	J	2000	24	ug/Kg	10	☼	8270C	Total/NA
Benzo(k)fluoranthene	2200		2000	22	ug/Kg	10	☼	8270C	Total/NA
Carbazole	390	J	2000	23	ug/Kg	10	☼	8270C	Total/NA
Chrysene	3100		2000	20	ug/Kg	10	☼	8270C	Total/NA
Dibenz(a,h)anthracene	390	J	2000	24	ug/Kg	10	☼	8270C	Total/NA
Fluoranthene	5900		2000	29	ug/Kg	10	☼	8270C	Total/NA
Fluorene	340	J	2000	46	ug/Kg	10	☼	8270C	Total/NA
Indeno(1,2,3-cd)pyrene	1200	J	2000	56	ug/Kg	10	☼	8270C	Total/NA
Phenanthrene	4000		2000	42	ug/Kg	10	☼	8270C	Total/NA
Pyrene	5200		2000	13	ug/Kg	10	☼	8270C	Total/NA
4,4'-DDE	51	J	200	30	ug/Kg	100	☼	8081A	Total/NA
4,4'-DDT	460		200	20	ug/Kg	100	☼	8081A	Total/NA
Methoxychlor	69	J	200	27	ug/Kg	100	☼	8081A	Total/NA
Arsenic	6.5		2.3		mg/Kg	1	☼	6010B	Total/NA
Barium	484		0.58		mg/Kg	1	☼	6010B	Total/NA
Cadmium	1.1		0.23		mg/Kg	1	☼	6010B	Total/NA
Chromium	16.9		0.58		mg/Kg	1	☼	6010B	Total/NA
Lead	840		1.2		mg/Kg	1	☼	6010B	Total/NA
Mercury	0.16		0.024		mg/Kg	1	☼	7471A	Total/NA

Client Sample ID: TP-3 (0-2) — Lab Sample ID: 480-16017-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	3.4	J	5.5	2.5	ug/Kg	1	☼	8260B	Total/NA
2-Methylnaphthalene	24	J	190	2.3	ug/Kg	1	☼	8270C	Total/NA
Acenaphthene	120	J	190	2.2	ug/Kg	1	☼	8270C	Total/NA
Acenaphthylene	69	J	190	1.5	ug/Kg	1	☼	8270C	Total/NA

Client Sample ID: TP-3 (0-2) (Continued)

Lab Sample ID: 480-16017-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Anthracene	420		190	4.8	ug/Kg	1	☼	8270C	Total/NA
Benzo(a)anthracene	1100		190	3.3	ug/Kg	1	☼	8270C	Total/NA
Benzo(a)pyrene	1200		190	4.6	ug/Kg	1	☼	8270C	Total/NA
Benzo(b)fluoranthene	1500		190	3.7	ug/Kg	1	☼	8270C	Total/NA
Benzo(g,h,i)perylene	320		190	2.3	ug/Kg	1	☼	8270C	Total/NA
Benzo(k)fluoranthene	880		190	2.1	ug/Kg	1	☼	8270C	Total/NA
Carbazole	160	J	190	2.2	ug/Kg	1	☼	8270C	Total/NA
Chrysene	1000		190	1.9	ug/Kg	1	☼	8270C	Total/NA
Dibenz(a,h)anthracene	120	J	190	2.2	ug/Kg	1	☼	8270C	Total/NA
Dibenzofuran	72	J	190	2.0	ug/Kg	1	☼	8270C	Total/NA
Fluoranthene	2300		190	2.7	ug/Kg	1	☼	8270C	Total/NA
Fluorene	180	J	190	4.4	ug/Kg	1	☼	8270C	Total/NA
Indeno(1,2,3-cd)pyrene	350		190	5.2	ug/Kg	1	☼	8270C	Total/NA
Naphthalene	43	J	190	3.1	ug/Kg	1	☼	8270C	Total/NA
Phenanthrene	1600		190	4.0	ug/Kg	1	☼	8270C	Total/NA
Pyrene	1700		190	1.2	ug/Kg	1	☼	8270C	Total/NA
Arsenic	6.3		2.1		mg/Kg	1	☼	6010B	Total/NA
Barium	470		0.52		mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.75		0.21		mg/Kg	1	☼	6010B	Total/NA
Chromium	21.4		2.6		mg/Kg	5	☼	6010B	Total/NA
Lead	264		1.0		mg/Kg	1	☼	6010B	Total/NA
Mercury	0.11		0.022		mg/Kg	1	☼	7471A	Total/NA

Client Sample ID: TP-4 (0-2)

Lab Sample ID: 480-16017-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	4.1	J	5.9	2.7	ug/Kg	1	☼	8260B	Total/NA
Anthracene	44	J	200	5.1	ug/Kg	1	☼	8270C	Total/NA
Benzo(a)anthracene	160	J	200	3.4	ug/Kg	1	☼	8270C	Total/NA
Benzo(a)pyrene	200		200	4.8	ug/Kg	1	☼	8270C	Total/NA
Benzo(b)fluoranthene	200		200	3.9	ug/Kg	1	☼	8270C	Total/NA
Benzo(g,h,i)perylene	61	J	200	2.4	ug/Kg	1	☼	8270C	Total/NA
Benzo(k)fluoranthene	170	J	200	2.2	ug/Kg	1	☼	8270C	Total/NA
Chrysene	180	J	200	2.0	ug/Kg	1	☼	8270C	Total/NA
Dibenz(a,h)anthracene	20	J	200	2.3	ug/Kg	1	☼	8270C	Total/NA
Fluoranthene	350		200	2.9	ug/Kg	1	☼	8270C	Total/NA
Indeno(1,2,3-cd)pyrene	65	J	200	5.5	ug/Kg	1	☼	8270C	Total/NA
Phenanthrene	160	J	200	4.2	ug/Kg	1	☼	8270C	Total/NA
Pyrene	290		200	1.3	ug/Kg	1	☼	8270C	Total/NA
Arsenic	7.8		2.5		mg/Kg	1	☼	6010B	Total/NA
Barium	110		0.63		mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.28		0.25		mg/Kg	1	☼	6010B	Total/NA
Chromium	18.7		0.63		mg/Kg	1	☼	6010B	Total/NA
Lead	18.9		1.3		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: TP-5 (0-2)

Lab Sample ID: 480-16017-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo(a)anthracene	290	J	1900	33	ug/Kg	10	☼	8270C	Total/NA
Benzo(a)pyrene	270	J	1900	45	ug/Kg	10	☼	8270C	Total/NA
Benzo(b)fluoranthene	470	J	1900	37	ug/Kg	10	☼	8270C	Total/NA
Benzo(k)fluoranthene	210	J	1900	21	ug/Kg	10	☼	8270C	Total/NA
Chrysene	280	J	1900	19	ug/Kg	10	☼	8270C	Total/NA
Fluoranthene	510	J	1900	27	ug/Kg	10	☼	8270C	Total/NA

Client Sample ID: TP-5 (0-2) (Continued) — Lab Sample ID: 480-16017-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	290	J	1900	40	ug/Kg	10	☼	8270C	Total/NA
Pyrene	410	J	1900	12	ug/Kg	10	☼	8270C	Total/NA
Arsenic	9.2		2.1		mg/Kg	1	☼	6010B	Total/NA
Barium	92.6		0.53		mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.36		0.21		mg/Kg	1	☼	6010B	Total/NA
Chromium	21.2		0.53		mg/Kg	1	☼	6010B	Total/NA
Lead	35.4		1.1		mg/Kg	1	☼	6010B	Total/NA
Mercury	0.037		0.021		mg/Kg	1	☼	7471A	Total/NA

Client Sample ID: TP-11 (0-2) — Lab Sample ID: 480-16017-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	3.2	J	5.7	2.6	ug/Kg	1	☼	8260B	Total/NA
2-Methylnaphthalene	15	J	200	2.4	ug/Kg	1	☼	8270C	Total/NA
Acenaphthylene	22	J	200	1.6	ug/Kg	1	☼	8270C	Total/NA
Anthracene	35	J	200	5.1	ug/Kg	1	☼	8270C	Total/NA
Benzo(a)anthracene	160	J	200	3.4	ug/Kg	1	☼	8270C	Total/NA
Benzo(a)pyrene	140	J	200	4.8	ug/Kg	1	☼	8270C	Total/NA
Benzo(b)fluoranthene	260		200	3.9	ug/Kg	1	☼	8270C	Total/NA
Benzo(g,h,i)perylene	52	J	200	2.4	ug/Kg	1	☼	8270C	Total/NA
Benzo(k)fluoranthene	130	J	200	2.2	ug/Kg	1	☼	8270C	Total/NA
Chrysene	150	J	200	2.0	ug/Kg	1	☼	8270C	Total/NA
Fluoranthene	270		200	2.9	ug/Kg	1	☼	8270C	Total/NA
Indeno(1,2,3-cd)pyrene	60	J	200	5.5	ug/Kg	1	☼	8270C	Total/NA
Phenanthrene	130	J	200	4.2	ug/Kg	1	☼	8270C	Total/NA
Pyrene	200		200	1.3	ug/Kg	1	☼	8270C	Total/NA
Arsenic	9.0		2.3		mg/Kg	1	☼	6010B	Total/NA
Barium	127		0.58		mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.94		0.23		mg/Kg	1	☼	6010B	Total/NA
Chromium	21.5		0.58		mg/Kg	1	☼	6010B	Total/NA
Lead	156		1.2		mg/Kg	1	☼	6010B	Total/NA
Silver	1.5		0.58		mg/Kg	1	☼	6010B	Total/NA
Mercury	0.53		0.024		mg/Kg	1	☼	7471A	Total/NA

Client Sample ID: TP-17 (0-2) — Lab Sample ID: 480-16017-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	4.0	J	5.7	2.6	ug/Kg	1	☼	8260B	Total/NA
Benzo(a)anthracene	130	J	2000	33	ug/Kg	10	☼	8270C	Total/NA
Benzo(b)fluoranthene	140	J	2000	38	ug/Kg	10	☼	8270C	Total/NA
Benzo(k)fluoranthene	97	J	2000	21	ug/Kg	10	☼	8270C	Total/NA
Chrysene	68	J	2000	19	ug/Kg	10	☼	8270C	Total/NA
Fluoranthene	160	J	2000	28	ug/Kg	10	☼	8270C	Total/NA
Phenanthrene	120	J	2000	41	ug/Kg	10	☼	8270C	Total/NA
Arsenic	9.7		2.2		mg/Kg	1	☼	6010B	Total/NA
Barium	86.0		0.55		mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.39		0.22		mg/Kg	1	☼	6010B	Total/NA
Chromium	19.2		0.55		mg/Kg	1	☼	6010B	Total/NA
Lead	76.4		1.1		mg/Kg	1	☼	6010B	Total/NA
Mercury	0.070		0.022		mg/Kg	1	☼	7471A	Total/NA

Client Sample ID: TP-9 (0-2) — Lab Sample ID: 480-16017-8

Client Sample ID: TP-9 (0-2) (Continued)

Lab Sample ID: 480-16017-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	4.9	J	7.2	3.3	ug/Kg	1	☼	8260B	Total/NA
2-Methylnaphthalene	35	J	250	3.1	ug/Kg	1	☼	8270C	Total/NA
Acenaphthene	15	J	250	3.0	ug/Kg	1	☼	8270C	Total/NA
Acenaphthylene	100	J	250	2.1	ug/Kg	1	☼	8270C	Total/NA
Anthracene	91	J	250	6.5	ug/Kg	1	☼	8270C	Total/NA
Benzo(a)anthracene	350		250	4.4	ug/Kg	1	☼	8270C	Total/NA
Benzo(a)pyrene	520		250	6.1	ug/Kg	1	☼	8270C	Total/NA
Benzo(b)fluoranthene	910		250	4.9	ug/Kg	1	☼	8270C	Total/NA
Benzo(g,h,i)perylene	220	J	250	3.0	ug/Kg	1	☼	8270C	Total/NA
Benzo(k)fluoranthene	440		250	2.8	ug/Kg	1	☼	8270C	Total/NA
Carbazole	75	J	250	2.9	ug/Kg	1	☼	8270C	Total/NA
Chrysene	460		250	2.5	ug/Kg	1	☼	8270C	Total/NA
Dibenz(a,h)anthracene	73	J	250	3.0	ug/Kg	1	☼	8270C	Total/NA
Dibenzofuran	18	J	250	2.6	ug/Kg	1	☼	8270C	Total/NA
Fluoranthene	730		250	3.7	ug/Kg	1	☼	8270C	Total/NA
Fluorene	27	J	250	5.8	ug/Kg	1	☼	8270C	Total/NA
Indeno(1,2,3-cd)pyrene	200	J	250	7.0	ug/Kg	1	☼	8270C	Total/NA
Naphthalene	29	J	250	4.2	ug/Kg	1	☼	8270C	Total/NA
Phenanthrene	410		250	5.3	ug/Kg	1	☼	8270C	Total/NA
Pyrene	510		250	1.6	ug/Kg	1	☼	8270C	Total/NA
Arsenic	16.4		2.9		mg/Kg	1	☼	6010B	Total/NA
Barium	272		0.71		mg/Kg	1	☼	6010B	Total/NA
Cadmium	1.4		0.29		mg/Kg	1	☼	6010B	Total/NA
Chromium	13.9		0.71		mg/Kg	1	☼	6010B	Total/NA
Lead	450		1.4		mg/Kg	1	☼	6010B	Total/NA
Mercury	0.061		0.032		mg/Kg	1	☼	7471A	Total/NA

Client Sample ID: TP-20 (0-2)

Lab Sample ID: 480-16017-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	4.0	J	5.6	2.6	ug/Kg	1	☼	8260B	Total/NA
2-Methylnaphthalene	46	J	190	2.3	ug/Kg	1	☼	8270C	Total/NA
Acenaphthene	80	J	190	2.2	ug/Kg	1	☼	8270C	Total/NA
Acenaphthylene	15	J	190	1.5	ug/Kg	1	☼	8270C	Total/NA
Anthracene	190		190	4.8	ug/Kg	1	☼	8270C	Total/NA
Benzo(a)anthracene	320		190	3.2	ug/Kg	1	☼	8270C	Total/NA
Benzo(a)pyrene	280		190	4.5	ug/Kg	1	☼	8270C	Total/NA
Benzo(b)fluoranthene	570		190	3.7	ug/Kg	1	☼	8270C	Total/NA
Benzo(g,h,i)perylene	110	J	190	2.3	ug/Kg	1	☼	8270C	Total/NA
Benzo(k)fluoranthene	260		190	2.1	ug/Kg	1	☼	8270C	Total/NA
Biphenyl	16	J	190	12	ug/Kg	1	☼	8270C	Total/NA
Carbazole	95	J	190	2.2	ug/Kg	1	☼	8270C	Total/NA
Chrysene	320		190	1.9	ug/Kg	1	☼	8270C	Total/NA
Dibenzofuran	80	J	190	2.0	ug/Kg	1	☼	8270C	Total/NA
Fluoranthene	750		190	2.7	ug/Kg	1	☼	8270C	Total/NA
Fluorene	110	J	190	4.3	ug/Kg	1	☼	8270C	Total/NA
Indeno(1,2,3-cd)pyrene	110	J	190	5.2	ug/Kg	1	☼	8270C	Total/NA
Naphthalene	160	J	190	3.1	ug/Kg	1	☼	8270C	Total/NA
Phenanthrene	760		190	3.9	ug/Kg	1	☼	8270C	Total/NA
Pyrene	540		190	1.2	ug/Kg	1	☼	8270C	Total/NA
Arsenic	5.1		2.4		mg/Kg	1	☼	6010B	Total/NA
Barium	38.8		0.60		mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.37		0.24		mg/Kg	1	☼	6010B	Total/NA
Chromium	7.6		0.60		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: TP-20 (0-2) (Continued)

Lab Sample ID: 480-16017-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	25.3		1.2		mg/Kg	1	☼	6010B	Total/NA
Mercury	0.040		0.022		mg/Kg	1	☼	7471A	Total/NA

Client Sample ID: TP-10 (0-2)

Lab Sample ID: 480-16017-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	3.0	J	5.7	2.6	ug/Kg	1	☼	8260B	Total/NA
Arsenic	4.8		2.4		mg/Kg	1	☼	6010B	Total/NA
Barium	51.8		0.60		mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.28		0.24		mg/Kg	1	☼	6010B	Total/NA
Chromium	8.7		0.60		mg/Kg	1	☼	6010B	Total/NA
Lead	8.0		1.2		mg/Kg	1	☼	6010B	Total/NA
Mercury	0.024		0.024		mg/Kg	1	☼	7471A	Total/NA

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16017-1

Client Sample ID: TP-14 (0-2)
Date Collected: 02/07/12 09:15
Date Received: 02/09/12 13:40

Lab Sample ID: 480-16017-1
Matrix: Solid
Percent Solids: 86.6

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.7	0.41	ug/Kg	☼		02/14/12 01:00	1
1,1,2,2-Tetrachloroethane	ND		5.7	0.92	ug/Kg	☼		02/14/12 01:00	1
1,1,2-Trichloroethane	ND		5.7	0.74	ug/Kg	☼		02/14/12 01:00	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.7	1.3	ug/Kg	☼		02/14/12 01:00	1
1,1-Dichloroethane	ND		5.7	0.69	ug/Kg	☼		02/14/12 01:00	1
1,1-Dichloroethene	ND		5.7	0.69	ug/Kg	☼		02/14/12 01:00	1
1,2,4-Trichlorobenzene	ND		5.7	0.34	ug/Kg	☼		02/14/12 01:00	1
1,2-Dibromo-3-Chloropropane	ND		5.7	2.8	ug/Kg	☼		02/14/12 01:00	1
1,2-Dibromoethane	ND		5.7	0.73	ug/Kg	☼		02/14/12 01:00	1
1,2-Dichlorobenzene	ND		5.7	0.44	ug/Kg	☼		02/14/12 01:00	1
1,2-Dichloroethane	ND		5.7	0.28	ug/Kg	☼		02/14/12 01:00	1
1,2-Dichloropropane	ND		5.7	2.8	ug/Kg	☼		02/14/12 01:00	1
1,3-Dichlorobenzene	ND		5.7	0.29	ug/Kg	☼		02/14/12 01:00	1
1,4-Dichlorobenzene	ND		5.7	0.79	ug/Kg	☼		02/14/12 01:00	1
2-Hexanone	ND		28	2.8	ug/Kg	☼		02/14/12 01:00	1
2-Butanone (MEK)	ND		28	2.1	ug/Kg	☼		02/14/12 01:00	1
4-Methyl-2-pentanone (MIBK)	ND		28	1.9	ug/Kg	☼		02/14/12 01:00	1
Acetone	ND		28	4.8	ug/Kg	☼		02/14/12 01:00	1
Benzene	ND		5.7	0.28	ug/Kg	☼		02/14/12 01:00	1
Bromodichloromethane	ND		5.7	0.76	ug/Kg	☼		02/14/12 01:00	1
Bromoform	ND		5.7	2.8	ug/Kg	☼		02/14/12 01:00	1
Bromomethane	ND		5.7	0.51	ug/Kg	☼		02/14/12 01:00	1
Carbon disulfide	ND		5.7	2.8	ug/Kg	☼		02/14/12 01:00	1
Carbon tetrachloride	ND		5.7	0.55	ug/Kg	☼		02/14/12 01:00	1
Chlorobenzene	ND		5.7	0.75	ug/Kg	☼		02/14/12 01:00	1
Dibromochloromethane	ND		5.7	0.73	ug/Kg	☼		02/14/12 01:00	1
Chloroethane	ND		5.7	1.3	ug/Kg	☼		02/14/12 01:00	1
Chloroform	ND		5.7	0.35	ug/Kg	☼		02/14/12 01:00	1
Chloromethane	ND		5.7	0.34	ug/Kg	☼		02/14/12 01:00	1
cis-1,2-Dichloroethene	ND		5.7	0.73	ug/Kg	☼		02/14/12 01:00	1
cis-1,3-Dichloropropene	ND		5.7	0.82	ug/Kg	☼		02/14/12 01:00	1
Cyclohexane	ND		5.7	0.79	ug/Kg	☼		02/14/12 01:00	1
Dichlorodifluoromethane	ND		5.7	0.47	ug/Kg	☼		02/14/12 01:00	1
Ethylbenzene	ND		5.7	0.39	ug/Kg	☼		02/14/12 01:00	1
Isopropylbenzene	ND		5.7	0.86	ug/Kg	☼		02/14/12 01:00	1
Methyl acetate	ND		5.7	1.1	ug/Kg	☼		02/14/12 01:00	1
Methyl tert-butyl ether	ND		5.7	0.56	ug/Kg	☼		02/14/12 01:00	1
Methylcyclohexane	ND		5.7	0.86	ug/Kg	☼		02/14/12 01:00	1
Methylene Chloride	**4.0**	**J**	5.7	2.6	ug/Kg	☼		02/14/12 01:00	1
Styrene	ND		5.7	0.28	ug/Kg	☼		02/14/12 01:00	1
Tetrachloroethene	ND		5.7	0.76	ug/Kg	☼		02/14/12 01:00	1
Toluene	ND		5.7	0.43	ug/Kg	☼		02/14/12 01:00	1
trans-1,2-Dichloroethene	ND		5.7	0.59	ug/Kg	☼		02/14/12 01:00	1
trans-1,3-Dichloropropene	ND		5.7	2.5	ug/Kg	☼		02/14/12 01:00	1
Trichloroethene	ND		5.7	1.2	ug/Kg	☼		02/14/12 01:00	1
Trichlorofluoromethane	ND		5.7	0.54	ug/Kg	☼		02/14/12 01:00	1
Vinyl chloride	ND		5.7	0.69	ug/Kg	☼		02/14/12 01:00	1
Xylenes, Total	ND		11	0.95	ug/Kg	☼		02/14/12 01:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*64 - 126*		*02/14/12 01:00*	*1*

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16017-1

Client Sample ID: TP-14 (0-2)
Date Collected: 02/07/12 09:15
Date Received: 02/09/12 13:40

Lab Sample ID: 480-16017-1
Matrix: Solid
Percent Solids: 86.6

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*108*		*71 - 125*		*02/14/12 01:00*	*1*
4-Bromofluorobenzene (Surr)	*105*		*72 - 126*		*02/14/12 01:00*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		1900	120	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
bis (2-chloroisopropyl) ether	ND		1900	200	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
2,4,5-Trichlorophenol	ND		1900	410	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
2,4,6-Trichlorophenol	ND		1900	130	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
2,4-Dichlorophenol	ND		1900	100	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
2,4-Dimethylphenol	ND		1900	510	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
2,4-Dinitrophenol	ND		3700	660	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
2,4-Dinitrotoluene	ND		1900	290	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
2,6-Dinitrotoluene	ND		1900	460	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
2-Chloronaphthalene	ND		1900	130	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
2-Chlorophenol	ND		1900	97	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
2-Methylnaphthalene	ND		1900	23	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
2-Methylphenol	ND		1900	58	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
2-Nitroaniline	ND		3700	610	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
2-Nitrophenol	ND		1900	87	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
3,3'-Dichlorobenzidine	ND		1900	1700	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
3-Nitroaniline	ND		3700	440	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
4,6-Dinitro-2-methylphenol	ND		3700	660	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
4-Bromophenyl phenyl ether	ND		1900	600	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
4-Chloro-3-methylphenol	ND		1900	78	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
4-Chloroaniline	ND		1900	560	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
4-Chlorophenyl phenyl ether	ND		1900	40	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
4-Methylphenol	ND		3700	110	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
4-Nitroaniline	ND		3700	210	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
4-Nitrophenol	ND		3700	460	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
Acenaphthene	ND		1900	22	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
Acenaphthylene	ND		1900	16	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
Acetophenone	ND		1900	97	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
Anthracene	**220**	**J**	1900	49	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
Atrazine	ND	*	1900	84	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
Benzaldehyde	ND		1900	210	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
Benzo(a)anthracene	**590**	**J**	1900	33	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
Benzo(a)pyrene	**620**	**J**	1900	46	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
Benzo(b)fluoranthene	**850**	**J**	1900	37	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
Benzo(g,h,i)perylene	ND		1900	23	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
Benzo(k)fluoranthene	**420**	**J**	1900	21	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
Bis(2-chloroethoxy)methane	ND		1900	100	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
Bis(2-chloroethyl)ether	ND		1900	160	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
Bis(2-ethylhexyl) phthalate	ND		1900	610	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
Butyl benzyl phthalate	ND		1900	510	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
Caprolactam	ND		1900	820	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
Carbazole	ND		1900	22	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
Chrysene	**600**	**J**	1900	19	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
Di-n-butyl phthalate	ND		1900	660	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
Di-n-octyl phthalate	ND		1900	44	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
Dibenz(a,h)anthracene	ND		1900	22	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16017-1

Client Sample ID: TP-14 (0-2)
Date Collected: 02/07/12 09:15
Date Received: 02/09/12 13:40

Lab Sample ID: 480-16017-1
Matrix: Solid
Percent Solids: 86.6

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	ND		1900	20	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
Diethyl phthalate	ND		1900	57	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
Dimethyl phthalate	ND		1900	50	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
Fluoranthene	**1100**	**J**	1900	28	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
Fluorene	ND		1900	44	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
Hexachlorobenzene	ND		1900	94	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
Hexachlorobutadiene	ND		1900	97	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
Hexachlorocyclopentadiene	ND		1900	570	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
Hexachloroethane	ND		1900	150	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
Indeno(1,2,3-cd)pyrene	**250**	**J**	1900	53	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
Isophorone	ND		1900	95	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
N-Nitrosodi-n-propylamine	ND		1900	150	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
N-Nitrosodiphenylamine	ND		1900	100	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
Naphthalene	ND		1900	32	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
Nitrobenzene	ND		1900	84	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
Pentachlorophenol	ND		3700	650	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
Phenanthrene	**850**	**J**	1900	40	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
Phenol	ND		1900	200	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10
Pyrene	**860**	**J**	1900	12	ug/Kg	☼	02/13/12 09:11	02/16/12 14:35	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*120*		*39 - 146*	*02/13/12 09:11*	*02/16/12 14:35*	*10*
2-Fluorobiphenyl	*127*	*X*	*37 - 120*	*02/13/12 09:11*	*02/16/12 14:35*	*10*
2-Fluorophenol	*101*		*18 - 120*	*02/13/12 09:11*	*02/16/12 14:35*	*10*
Nitrobenzene-d5	*116*		*34 - 132*	*02/13/12 09:11*	*02/16/12 14:35*	*10*
p-Terphenyl-d14	*131*		*65 - 153*	*02/13/12 09:11*	*02/16/12 14:35*	*10*
Phenol-d5	*117*		*11 - 120*	*02/13/12 09:11*	*02/16/12 14:35*	*10*

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		190	37	ug/Kg	☼	02/13/12 13:54	02/15/12 14:16	100
4,4'-DDE	ND		190	28	ug/Kg	☼	02/13/12 13:54	02/15/12 14:16	100
4,4'-DDT	ND		190	19	ug/Kg	☼	02/13/12 13:54	02/15/12 14:16	100
Aldrin	ND		190	47	ug/Kg	☼	02/13/12 13:54	02/15/12 14:16	100
alpha-BHC	ND		190	34	ug/Kg	☼	02/13/12 13:54	02/15/12 14:16	100
alpha-Chlordane	ND		190	94	ug/Kg	☼	02/13/12 13:54	02/15/12 14:16	100
beta-BHC	ND		190	20	ug/Kg	☼	02/13/12 13:54	02/15/12 14:16	100
delta-BHC	ND		190	25	ug/Kg	☼	02/13/12 13:54	02/15/12 14:16	100
Dieldrin	ND		190	45	ug/Kg	☼	02/13/12 13:54	02/15/12 14:16	100
Endosulfan I	ND		190	24	ug/Kg	☼	02/13/12 13:54	02/15/12 14:16	100
Endosulfan II	ND		190	34	ug/Kg	☼	02/13/12 13:54	02/15/12 14:16	100
Endosulfan sulfate	ND		190	35	ug/Kg	☼	02/13/12 13:54	02/15/12 14:16	100
Endrin	ND		190	26	ug/Kg	☼	02/13/12 13:54	02/15/12 14:16	100
Endrin aldehyde	ND		190	48	ug/Kg	☼	02/13/12 13:54	02/15/12 14:16	100
Endrin ketone	ND		190	47	ug/Kg	☼	02/13/12 13:54	02/15/12 14:16	100
gamma-BHC (Lindane)	ND		190	140	ug/Kg	☼	02/13/12 13:54	02/15/12 14:16	100
gamma-Chlordane	ND		190	60	ug/Kg	☼	02/13/12 13:54	02/15/12 14:16	100
Heptachlor	ND		190	30	ug/Kg	☼	02/13/12 13:54	02/15/12 14:16	100
Heptachlor epoxide	ND		190	49	ug/Kg	☼	02/13/12 13:54	02/15/12 14:16	100
Methoxychlor	ND		190	26	ug/Kg	☼	02/13/12 13:54	02/15/12 14:16	100
Toxaphene	ND		1900	1100	ug/Kg	☼	02/13/12 13:54	02/15/12 14:16	100

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16017-1

Client Sample ID: TP-14 (0-2)
Date Collected: 02/07/12 09:15
Date Received: 02/09/12 13:40

Lab Sample ID: 480-16017-1
Matrix: Solid
Percent Solids: 86.6

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	0	X	62 - 137	02/13/12 13:54	02/15/12 14:16	100
DCB Decachlorobiphenyl	0	X	62 - 137	02/13/12 13:54	02/15/12 14:16	100
Tetrachloro-m-xylene	0	X	30 - 124	02/13/12 13:54	02/15/12 14:16	100
Tetrachloro-m-xylene	0	X	30 - 124	02/13/12 13:54	02/15/12 14:16	100

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		200	38	ug/Kg	☼	02/13/12 09:41	02/13/12 19:38	1
PCB-1221	ND		200	38	ug/Kg	☼	02/13/12 09:41	02/13/12 19:38	1
PCB-1232	ND		200	38	ug/Kg	☼	02/13/12 09:41	02/13/12 19:38	1
PCB-1242	ND		200	38	ug/Kg	☼	02/13/12 09:41	02/13/12 19:38	1
PCB-1248	ND		200	38	ug/Kg	☼	02/13/12 09:41	02/13/12 19:38	1
PCB-1254	ND		200	92	ug/Kg	☼	02/13/12 09:41	02/13/12 19:38	1
PCB-1260	ND		200	92	ug/Kg	☼	02/13/12 09:41	02/13/12 19:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	80		36 - 182	02/13/12 09:41	02/13/12 19:38	1
DCB Decachlorobiphenyl	82		36 - 182	02/13/12 09:41	02/13/12 19:38	1
Tetrachloro-m-xylene	75		24 - 172	02/13/12 09:41	02/13/12 19:38	1
Tetrachloro-m-xylene	83		24 - 172	02/13/12 09:41	02/13/12 19:38	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		19	6.0	ug/Kg	☼	02/13/12 14:11	02/15/12 20:10	1
Silvex (2,4,5-TP)	ND		19	6.8	ug/Kg	☼	02/13/12 14:11	02/15/12 20:10	1
2,4-D	ND		19	12	ug/Kg	☼	02/13/12 14:11	02/15/12 20:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	86		39 - 120	02/13/12 14:11	02/15/12 20:10	1
2,4-Dichlorophenylacetic acid	113		39 - 120	02/13/12 14:11	02/15/12 20:10	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**7.4**		2.3		mg/Kg	☼	02/13/12 10:00	02/13/12 19:29	1
Barium	**92.5**		0.57		mg/Kg	☼	02/13/12 10:00	02/13/12 19:29	1
Cadmium	**0.36**		0.23		mg/Kg	☼	02/13/12 10:00	02/13/12 19:29	1
Chromium	**16.4**		0.57		mg/Kg	☼	02/13/12 10:00	02/13/12 19:29	1
Lead	**45.0**		1.1		mg/Kg	☼	02/13/12 10:00	02/13/12 19:29	1
Selenium	ND		4.6		mg/Kg	☼	02/13/12 10:00	02/13/12 19:29	1
Silver	ND		0.57		mg/Kg	☼	02/13/12 10:00	02/13/12 19:29	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.082**		0.022		mg/Kg	☼	02/14/12 11:40	02/14/12 13:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		1.1		mg/Kg	☼	02/13/12 17:00	02/14/12 12:54	1

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16017-1

Client Sample ID: TP-15 (0-2)
Date Collected: 02/08/12 12:10
Date Received: 02/09/12 13:40

Lab Sample ID: 480-16017-2
Matrix: Solid
Percent Solids: 82.9

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.8	0.42	ug/Kg	☼		02/14/12 02:16	1
1,1,2,2-Tetrachloroethane	ND		5.8	0.94	ug/Kg	☼		02/14/12 02:16	1
1,1,2-Trichloroethane	ND		5.8	0.75	ug/Kg	☼		02/14/12 02:16	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.8	1.3	ug/Kg	☼		02/14/12 02:16	1
1,1-Dichloroethane	ND		5.8	0.71	ug/Kg	☼		02/14/12 02:16	1
1,1-Dichloroethene	ND		5.8	0.71	ug/Kg	☼		02/14/12 02:16	1
1,2,4-Trichlorobenzene	ND		5.8	0.35	ug/Kg	☼		02/14/12 02:16	1
1,2-Dibromo-3-Chloropropane	ND		5.8	2.9	ug/Kg	☼		02/14/12 02:16	1
1,2-Dibromoethane	ND		5.8	0.75	ug/Kg	☼		02/14/12 02:16	1
1,2-Dichlorobenzene	ND		5.8	0.45	ug/Kg	☼		02/14/12 02:16	1
1,2-Dichloroethane	ND		5.8	0.29	ug/Kg	☼		02/14/12 02:16	1
1,2-Dichloropropane	ND		5.8	2.9	ug/Kg	☼		02/14/12 02:16	1
1,3-Dichlorobenzene	ND		5.8	0.30	ug/Kg	☼		02/14/12 02:16	1
1,4-Dichlorobenzene	ND		5.8	0.81	ug/Kg	☼		02/14/12 02:16	1
2-Hexanone	ND		29	2.9	ug/Kg	☼		02/14/12 02:16	1
2-Butanone (MEK)	ND		29	2.1	ug/Kg	☼		02/14/12 02:16	1
4-Methyl-2-pentanone (MIBK)	ND		29	1.9	ug/Kg	☼		02/14/12 02:16	1
Acetone	ND		29	4.9	ug/Kg	☼		02/14/12 02:16	1
Benzene	ND		5.8	0.28	ug/Kg	☼		02/14/12 02:16	1
Bromodichloromethane	ND		5.8	0.78	ug/Kg	☼		02/14/12 02:16	1
Bromoform	ND		5.8	2.9	ug/Kg	☼		02/14/12 02:16	1
Bromomethane	ND		5.8	0.52	ug/Kg	☼		02/14/12 02:16	1
Carbon disulfide	ND		5.8	2.9	ug/Kg	☼		02/14/12 02:16	1
Carbon tetrachloride	ND		5.8	0.56	ug/Kg	☼		02/14/12 02:16	1
Chlorobenzene	ND		5.8	0.77	ug/Kg	☼		02/14/12 02:16	1
Dibromochloromethane	ND		5.8	0.74	ug/Kg	☼		02/14/12 02:16	1
Chloroethane	ND		5.8	1.3	ug/Kg	☼		02/14/12 02:16	1
Chloroform	ND		5.8	0.36	ug/Kg	☼		02/14/12 02:16	1
Chloromethane	ND		5.8	0.35	ug/Kg	☼		02/14/12 02:16	1
cis-1,2-Dichloroethene	ND		5.8	0.74	ug/Kg	☼		02/14/12 02:16	1
cis-1,3-Dichloropropene	ND		5.8	0.84	ug/Kg	☼		02/14/12 02:16	1
Cyclohexane	ND		5.8	0.81	ug/Kg	☼		02/14/12 02:16	1
Dichlorodifluoromethane	ND		5.8	0.48	ug/Kg	☼		02/14/12 02:16	1
Ethylbenzene	ND		5.8	0.40	ug/Kg	☼		02/14/12 02:16	1
Isopropylbenzene	ND		5.8	0.88	ug/Kg	☼		02/14/12 02:16	1
Methyl acetate	ND		5.8	1.1	ug/Kg	☼		02/14/12 02:16	1
Methyl tert-butyl ether	ND		5.8	0.57	ug/Kg	☼		02/14/12 02:16	1
Methylcyclohexane	ND		5.8	0.88	ug/Kg	☼		02/14/12 02:16	1
Methylene Chloride	**4.3**	**J**	5.8	2.7	ug/Kg	☼		02/14/12 02:16	1
Styrene	ND		5.8	0.29	ug/Kg	☼		02/14/12 02:16	1
Tetrachloroethene	ND		5.8	0.78	ug/Kg	☼		02/14/12 02:16	1
Toluene	ND		5.8	0.44	ug/Kg	☼		02/14/12 02:16	1
trans-1,2-Dichloroethene	ND		5.8	0.60	ug/Kg	☼		02/14/12 02:16	1
trans-1,3-Dichloropropene	ND		5.8	2.6	ug/Kg	☼		02/14/12 02:16	1
Trichloroethene	ND		5.8	1.3	ug/Kg	☼		02/14/12 02:16	1
Trichlorofluoromethane	ND		5.8	0.55	ug/Kg	☼		02/14/12 02:16	1
Vinyl chloride	ND		5.8	0.71	ug/Kg	☼		02/14/12 02:16	1
Xylenes, Total	ND		12	0.97	ug/Kg	☼		02/14/12 02:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*64 - 126*		*02/14/12 02:16*	*1*

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16017-1

Client Sample ID: TP-15 (0-2)
Date Collected: 02/08/12 12:10
Date Received: 02/09/12 13:40

Lab Sample ID: 480-16017-2
Matrix: Solid
Percent Solids: 82.9

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*109*		*71 - 125*		*02/14/12 02:16*	*1*
4-Bromofluorobenzene (Surr)	*107*		*72 - 126*		*02/14/12 02:16*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		2000	130	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
bis (2-chloroisopropyl) ether	ND		2000	210	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
2,4,5-Trichlorophenol	ND		2000	440	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
2,4,6-Trichlorophenol	ND		2000	130	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
2,4-Dichlorophenol	ND		2000	110	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
2,4-Dimethylphenol	ND		2000	540	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
2,4-Dinitrophenol	ND		3900	700	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
2,4-Dinitrotoluene	ND		2000	310	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
2,6-Dinitrotoluene	ND		2000	490	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
2-Chloronaphthalene	ND		2000	140	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
2-Chlorophenol	ND		2000	100	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
2-Methylnaphthalene	ND		2000	24	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
2-Methylphenol	ND		2000	62	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
2-Nitroaniline	ND		3900	650	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
2-Nitrophenol	ND		2000	92	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
3,3'-Dichlorobenzidine	ND		2000	1800	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
3-Nitroaniline	ND		3900	460	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
4,6-Dinitro-2-methylphenol	ND		3900	690	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
4-Bromophenyl phenyl ether	ND		2000	640	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
4-Chloro-3-methylphenol	ND		2000	83	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
4-Chloroaniline	ND		2000	590	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
4-Chlorophenyl phenyl ether	ND		2000	43	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
4-Methylphenol	ND		3900	110	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
4-Nitroaniline	ND		3900	220	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
4-Nitrophenol	ND		3900	490	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
Acenaphthene	**310**	**J**	2000	24	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
Acenaphthylene	ND		2000	16	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
Acetophenone	ND		2000	100	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
Anthracene	**1000**	**J**	2000	52	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
Atrazine	ND	*	2000	90	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
Benzaldehyde	ND		2000	220	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
Benzo(a)anthracene	**3200**		2000	35	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
Benzo(a)pyrene	**4100**		2000	49	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
Benzo(b)fluoranthene	**5000**		2000	39	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
Benzo(g,h,i)perylene	**1100**	**J**	2000	24	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
Benzo(k)fluoranthene	**2200**		2000	22	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
Bis(2-chloroethoxy)methane	ND		2000	110	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
Bis(2-chloroethyl)ether	ND		2000	170	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
Bis(2-ethylhexyl) phthalate	ND		2000	650	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
Butyl benzyl phthalate	ND		2000	540	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
Caprolactam	ND		2000	870	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
Carbazole	**390**	**J**	2000	23	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
Chrysene	**3100**		2000	20	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
Di-n-butyl phthalate	ND		2000	700	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
Di-n-octyl phthalate	ND		2000	47	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
Dibenz(a,h)anthracene	**390**	**J**	2000	24	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16017-1

Client Sample ID: TP-15 (0-2)
Date Collected: 02/08/12 12:10
Date Received: 02/09/12 13:40

Lab Sample ID: 480-16017-2
Matrix: Solid
Percent Solids: 82.9

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	ND		2000	21	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
Diethyl phthalate	ND		2000	61	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
Dimethyl phthalate	ND		2000	53	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
Fluoranthene	**5900**		2000	29	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
Fluorene	**340**	**J**	2000	46	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
Hexachlorobenzene	ND		2000	100	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
Hexachlorobutadiene	ND		2000	100	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
Hexachlorocyclopentadiene	ND		2000	610	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
Hexachloroethane	ND		2000	160	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
Indeno(1,2,3-cd)pyrene	**1200**	**J**	2000	56	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
Isophorone	ND		2000	100	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
N-Nitrosodi-n-propylamine	ND		2000	160	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
N-Nitrosodiphenylamine	ND		2000	110	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
Naphthalene	ND		2000	33	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
Nitrobenzene	ND		2000	89	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
Pentachlorophenol	ND		3900	690	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
Phenanthrene	**4000**		2000	42	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
Phenol	ND		2000	210	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10
Pyrene	**5200**		2000	13	ug/Kg	☼	02/13/12 09:11	02/16/12 02:41	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*111*		*39 - 146*	*02/13/12 09:11*	*02/16/12 02:41*	*10*
2-Fluorobiphenyl	*111*		*37 - 120*	*02/13/12 09:11*	*02/16/12 02:41*	*10*
2-Fluorophenol	*85*		*18 - 120*	*02/13/12 09:11*	*02/16/12 02:41*	*10*
Nitrobenzene-d5	*106*		*34 - 132*	*02/13/12 09:11*	*02/16/12 02:41*	*10*
p-Terphenyl-d14	*119*		*65 - 153*	*02/13/12 09:11*	*02/16/12 02:41*	*10*
Phenol-d5	*98*		*11 - 120*	*02/13/12 09:11*	*02/16/12 02:41*	*10*

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		200	39	ug/Kg	☼	02/13/12 13:54	02/15/12 14:57	100
4,4'-DDE	**51**	**J**	200	30	ug/Kg	☼	02/13/12 13:54	02/15/12 14:57	100
4,4'-DDT	**460**		200	20	ug/Kg	☼	02/13/12 13:54	02/15/12 14:57	100
Aldrin	ND		200	49	ug/Kg	☼	02/13/12 13:54	02/15/12 14:57	100
alpha-BHC	ND		200	36	ug/Kg	☼	02/13/12 13:54	02/15/12 14:57	100
alpha-Chlordane	ND		200	99	ug/Kg	☼	02/13/12 13:54	02/15/12 14:57	100
beta-BHC	ND		200	21	ug/Kg	☼	02/13/12 13:54	02/15/12 14:57	100
delta-BHC	ND		200	26	ug/Kg	☼	02/13/12 13:54	02/15/12 14:57	100
Dieldrin	ND		200	48	ug/Kg	☼	02/13/12 13:54	02/15/12 14:57	100
Endosulfan I	ND		200	25	ug/Kg	☼	02/13/12 13:54	02/15/12 14:57	100
Endosulfan II	ND		200	36	ug/Kg	☼	02/13/12 13:54	02/15/12 14:57	100
Endosulfan sulfate	ND		200	37	ug/Kg	☼	02/13/12 13:54	02/15/12 14:57	100
Endrin	ND		200	27	ug/Kg	☼	02/13/12 13:54	02/15/12 14:57	100
Endrin aldehyde	ND		200	51	ug/Kg	☼	02/13/12 13:54	02/15/12 14:57	100
Endrin ketone	ND		200	49	ug/Kg	☼	02/13/12 13:54	02/15/12 14:57	100
gamma-BHC (Lindane)	ND		200	140	ug/Kg	☼	02/13/12 13:54	02/15/12 14:57	100
gamma-Chlordane	ND		200	63	ug/Kg	☼	02/13/12 13:54	02/15/12 14:57	100
Heptachlor	ND		200	31	ug/Kg	☼	02/13/12 13:54	02/15/12 14:57	100
Heptachlor epoxide	ND		200	51	ug/Kg	☼	02/13/12 13:54	02/15/12 14:57	100
Methoxychlor	**69**	**J**	200	27	ug/Kg	☼	02/13/12 13:54	02/15/12 14:57	100
Toxaphene	ND		2000	1200	ug/Kg	☼	02/13/12 13:54	02/15/12 14:57	100

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16017-1

Client Sample ID: TP-15 (0-2)
Date Collected: 02/08/12 12:10
Date Received: 02/09/12 13:40

Lab Sample ID: 480-16017-2
Matrix: Solid
Percent Solids: 82.9

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	0	X	62 - 137	02/13/12 13:54	02/15/12 14:57	100
DCB Decachlorobiphenyl	0	X	62 - 137	02/13/12 13:54	02/15/12 14:57	100
Tetrachloro-m-xylene	0	X	30 - 124	02/13/12 13:54	02/15/12 14:57	100
Tetrachloro-m-xylene	0	X	30 - 124	02/13/12 13:54	02/15/12 14:57	100

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		280	54	ug/Kg	☼	02/13/12 09:41	02/13/12 19:52	1
PCB-1221	ND		280	54	ug/Kg	☼	02/13/12 09:41	02/13/12 19:52	1
PCB-1232	ND		280	54	ug/Kg	☼	02/13/12 09:41	02/13/12 19:52	1
PCB-1242	ND		280	54	ug/Kg	☼	02/13/12 09:41	02/13/12 19:52	1
PCB-1248	ND		280	54	ug/Kg	☼	02/13/12 09:41	02/13/12 19:52	1
PCB-1254	ND		280	130	ug/Kg	☼	02/13/12 09:41	02/13/12 19:52	1
PCB-1260	ND		280	130	ug/Kg	☼	02/13/12 09:41	02/13/12 19:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	132		36 - 182	02/13/12 09:41	02/13/12 19:52	1
DCB Decachlorobiphenyl	129		36 - 182	02/13/12 09:41	02/13/12 19:52	1
Tetrachloro-m-xylene	89		24 - 172	02/13/12 09:41	02/13/12 19:52	1
Tetrachloro-m-xylene	99		24 - 172	02/13/12 09:41	02/13/12 19:52	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		20	6.3	ug/Kg	☼	02/13/12 14:11	02/15/12 21:09	1
Silvex (2,4,5-TP)	ND		20	7.1	ug/Kg	☼	02/13/12 14:11	02/15/12 21:09	1
2,4-D	ND		20	12	ug/Kg	☼	02/13/12 14:11	02/15/12 21:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	96		39 - 120	02/13/12 14:11	02/15/12 21:09	1
2,4-Dichlorophenylacetic acid	97		39 - 120	02/13/12 14:11	02/15/12 21:09	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**6.5**		2.3		mg/Kg	☼	02/13/12 10:00	02/13/12 19:40	1
Barium	**484**		0.58		mg/Kg	☼	02/13/12 10:00	02/13/12 19:40	1
Cadmium	**1.1**		0.23		mg/Kg	☼	02/13/12 10:00	02/13/12 19:40	1
Chromium	**16.9**		0.58		mg/Kg	☼	02/13/12 10:00	02/13/12 19:40	1
Lead	**840**		1.2		mg/Kg	☼	02/13/12 10:00	02/13/12 19:40	1
Selenium	ND		4.6		mg/Kg	☼	02/13/12 10:00	02/13/12 19:40	1
Silver	ND		0.58		mg/Kg	☼	02/13/12 10:00	02/13/12 19:40	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.16**		0.024		mg/Kg	☼	02/14/12 11:40	02/14/12 13:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		1.1		mg/Kg	☼	02/13/12 17:00	02/14/12 12:57	1

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16017-1

Client Sample ID: TP-3 (0-2)
Date Collected: 02/07/12 16:10
Date Received: 02/09/12 13:40

Lab Sample ID: 480-16017-3
Matrix: Solid
Percent Solids: 88.9

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.5	0.40	ug/Kg	☼		02/14/12 02:41	1
1,1,2,2-Tetrachloroethane	ND		5.5	0.90	ug/Kg	☼		02/14/12 02:41	1
1,1,2-Trichloroethane	ND		5.5	0.72	ug/Kg	☼		02/14/12 02:41	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.5	1.3	ug/Kg	☼		02/14/12 02:41	1
1,1-Dichloroethane	ND		5.5	0.67	ug/Kg	☼		02/14/12 02:41	1
1,1-Dichloroethene	ND		5.5	0.68	ug/Kg	☼		02/14/12 02:41	1
1,2,4-Trichlorobenzene	ND		5.5	0.34	ug/Kg	☼		02/14/12 02:41	1
1,2-Dibromo-3-Chloropropane	ND		5.5	2.8	ug/Kg	☼		02/14/12 02:41	1
1,2-Dibromoethane	ND		5.5	0.71	ug/Kg	☼		02/14/12 02:41	1
1,2-Dichlorobenzene	ND		5.5	0.43	ug/Kg	☼		02/14/12 02:41	1
1,2-Dichloroethane	ND		5.5	0.28	ug/Kg	☼		02/14/12 02:41	1
1,2-Dichloropropane	ND		5.5	2.8	ug/Kg	☼		02/14/12 02:41	1
1,3-Dichlorobenzene	ND		5.5	0.28	ug/Kg	☼		02/14/12 02:41	1
1,4-Dichlorobenzene	ND		5.5	0.77	ug/Kg	☼		02/14/12 02:41	1
2-Hexanone	ND		28	2.8	ug/Kg	☼		02/14/12 02:41	1
2-Butanone (MEK)	ND		28	2.0	ug/Kg	☼		02/14/12 02:41	1
4-Methyl-2-pentanone (MIBK)	ND		28	1.8	ug/Kg	☼		02/14/12 02:41	1
Acetone	ND		28	4.7	ug/Kg	☼		02/14/12 02:41	1
Benzene	ND		5.5	0.27	ug/Kg	☼		02/14/12 02:41	1
Bromodichloromethane	ND		5.5	0.74	ug/Kg	☼		02/14/12 02:41	1
Bromoform	ND		5.5	2.8	ug/Kg	☼		02/14/12 02:41	1
Bromomethane	ND		5.5	0.50	ug/Kg	☼		02/14/12 02:41	1
Carbon disulfide	ND		5.5	2.8	ug/Kg	☼		02/14/12 02:41	1
Carbon tetrachloride	ND		5.5	0.54	ug/Kg	☼		02/14/12 02:41	1
Chlorobenzene	ND		5.5	0.73	ug/Kg	☼		02/14/12 02:41	1
Dibromochloromethane	ND		5.5	0.71	ug/Kg	☼		02/14/12 02:41	1
Chloroethane	ND		5.5	1.2	ug/Kg	☼		02/14/12 02:41	1
Chloroform	ND		5.5	0.34	ug/Kg	☼		02/14/12 02:41	1
Chloromethane	ND		5.5	0.33	ug/Kg	☼		02/14/12 02:41	1
cis-1,2-Dichloroethene	ND		5.5	0.71	ug/Kg	☼		02/14/12 02:41	1
cis-1,3-Dichloropropene	ND		5.5	0.80	ug/Kg	☼		02/14/12 02:41	1
Cyclohexane	ND		5.5	0.77	ug/Kg	☼		02/14/12 02:41	1
Dichlorodifluoromethane	ND		5.5	0.46	ug/Kg	☼		02/14/12 02:41	1
Ethylbenzene	ND		5.5	0.38	ug/Kg	☼		02/14/12 02:41	1
Isopropylbenzene	ND		5.5	0.83	ug/Kg	☼		02/14/12 02:41	1
Methyl acetate	ND		5.5	1.0	ug/Kg	☼		02/14/12 02:41	1
Methyl tert-butyl ether	ND		5.5	0.54	ug/Kg	☼		02/14/12 02:41	1
Methylcyclohexane	ND		5.5	0.84	ug/Kg	☼		02/14/12 02:41	1
Methylene Chloride	**3.4**	**J**	5.5	2.5	ug/Kg	☼		02/14/12 02:41	1
Styrene	ND		5.5	0.28	ug/Kg	☼		02/14/12 02:41	1
Tetrachloroethene	ND		5.5	0.74	ug/Kg	☼		02/14/12 02:41	1
Toluene	ND		5.5	0.42	ug/Kg	☼		02/14/12 02:41	1
trans-1,2-Dichloroethene	ND		5.5	0.57	ug/Kg	☼		02/14/12 02:41	1
trans-1,3-Dichloropropene	ND		5.5	2.4	ug/Kg	☼		02/14/12 02:41	1
Trichloroethene	ND		5.5	1.2	ug/Kg	☼		02/14/12 02:41	1
Trichlorofluoromethane	ND		5.5	0.52	ug/Kg	☼		02/14/12 02:41	1
Vinyl chloride	ND		5.5	0.67	ug/Kg	☼		02/14/12 02:41	1
Xylenes, Total	ND		11	0.93	ug/Kg	☼		02/14/12 02:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*64 - 126*		*02/14/12 02:41*	*1*

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16017-1

Client Sample ID: TP-3 (0-2)
Date Collected: 02/07/12 16:10
Date Received: 02/09/12 13:40

Lab Sample ID: 480-16017-3
Matrix: Solid
Percent Solids: 88.9

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*107*		*71 - 125*		*02/14/12 02:41*	*1*
4-Bromofluorobenzene (Surr)	*107*		*72 - 126*		*02/14/12 02:41*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	ND		190	29	ug/Kg	☼	02/13/12 09:11	02/16/12 14:58	1
2,6-Dinitrotoluene	ND		190	46	ug/Kg	☼	02/13/12 09:11	02/16/12 14:58	1
2-Chloronaphthalene	ND		190	13	ug/Kg	☼	02/13/12 09:11	02/16/12 14:58	1
2-Methylnaphthalene	**24**	**J**	190	2.3	ug/Kg	☼	02/13/12 09:11	02/16/12 14:58	1
2-Nitroaniline	ND		370	61	ug/Kg	☼	02/13/12 09:11	02/16/12 14:58	1
3,3'-Dichlorobenzidine	ND		190	170	ug/Kg	☼	02/13/12 09:11	02/16/12 14:58	1
3-Nitroaniline	ND		370	43	ug/Kg	☼	02/13/12 09:11	02/16/12 14:58	1
4-Bromophenyl phenyl ether	ND		190	60	ug/Kg	☼	02/13/12 09:11	02/16/12 14:58	1
4-Chloroaniline	ND		190	55	ug/Kg	☼	02/13/12 09:11	02/16/12 14:58	1
4-Chlorophenyl phenyl ether	ND		190	4.0	ug/Kg	☼	02/13/12 09:11	02/16/12 14:58	1
4-Nitroaniline	ND		370	21	ug/Kg	☼	02/13/12 09:11	02/16/12 14:58	1
Acenaphthene	**120**	**J**	190	2.2	ug/Kg	☼	02/13/12 09:11	02/16/12 14:58	1
Acenaphthylene	**69**	**J**	190	1.5	ug/Kg	☼	02/13/12 09:11	02/16/12 14:58	1
Acetophenone	ND		190	9.7	ug/Kg	☼	02/13/12 09:11	02/16/12 14:58	1
Anthracene	**420**		190	4.8	ug/Kg	☼	02/13/12 09:11	02/16/12 14:58	1
Atrazine	ND	*	190	8.4	ug/Kg	☼	02/13/12 09:11	02/16/12 14:58	1
Benzaldehyde	ND		190	21	ug/Kg	☼	02/13/12 09:11	02/16/12 14:58	1
Benzo(a)anthracene	**1100**		190	3.3	ug/Kg	☼	02/13/12 09:11	02/16/12 14:58	1
Benzo(a)pyrene	**1200**		190	4.6	ug/Kg	☼	02/13/12 09:11	02/16/12 14:58	1
Benzo(b)fluoranthene	**1500**		190	3.7	ug/Kg	☼	02/13/12 09:11	02/16/12 14:58	1
Benzo(g,h,i)perylene	**320**		190	2.3	ug/Kg	☼	02/13/12 09:11	02/16/12 14:58	1
Benzo(k)fluoranthene	**880**		190	2.1	ug/Kg	☼	02/13/12 09:11	02/16/12 14:58	1
Biphenyl	ND		190	12	ug/Kg	☼	02/13/12 09:11	02/16/12 14:58	1
bis (2-chloroisopropyl) ether	ND		190	20	ug/Kg	☼	02/13/12 09:11	02/16/12 14:58	1
Bis(2-chloroethoxy)methane	ND		190	10	ug/Kg	☼	02/13/12 09:11	02/16/12 14:58	1
Bis(2-chloroethyl)ether	ND		190	16	ug/Kg	☼	02/13/12 09:11	02/16/12 14:58	1
Bis(2-ethylhexyl) phthalate	ND		190	61	ug/Kg	☼	02/13/12 09:11	02/16/12 14:58	1
Butyl benzyl phthalate	ND		190	51	ug/Kg	☼	02/13/12 09:11	02/16/12 14:58	1
Caprolactam	ND		190	82	ug/Kg	☼	02/13/12 09:11	02/16/12 14:58	1
Carbazole	**160**	**J**	190	2.2	ug/Kg	☼	02/13/12 09:11	02/16/12 14:58	1
Chrysene	**1000**		190	1.9	ug/Kg	☼	02/13/12 09:11	02/16/12 14:58	1
Dibenz(a,h)anthracene	**120**	**J**	190	2.2	ug/Kg	☼	02/13/12 09:11	02/16/12 14:58	1
Dibenzofuran	**72**	**J**	190	2.0	ug/Kg	☼	02/13/12 09:11	02/16/12 14:58	1
Diethyl phthalate	ND		190	5.7	ug/Kg	☼	02/13/12 09:11	02/16/12 14:58	1
Dimethyl phthalate	ND		190	4.9	ug/Kg	☼	02/13/12 09:11	02/16/12 14:58	1
Di-n-butyl phthalate	ND		190	65	ug/Kg	☼	02/13/12 09:11	02/16/12 14:58	1
Di-n-octyl phthalate	ND		190	4.4	ug/Kg	☼	02/13/12 09:11	02/16/12 14:58	1
Fluoranthene	**2300**		190	2.7	ug/Kg	☼	02/13/12 09:11	02/16/12 14:58	1
Fluorene	**180**	**J**	190	4.4	ug/Kg	☼	02/13/12 09:11	02/16/12 14:58	1
Hexachlorobenzene	ND		190	9.4	ug/Kg	☼	02/13/12 09:11	02/16/12 14:58	1
Hexachlorobutadiene	ND		190	9.7	ug/Kg	☼	02/13/12 09:11	02/16/12 14:58	1
Hexachlorocyclopentadiene	ND		190	57	ug/Kg	☼	02/13/12 09:11	02/16/12 14:58	1
Hexachloroethane	ND		190	15	ug/Kg	☼	02/13/12 09:11	02/16/12 14:58	1
Indeno(1,2,3-cd)pyrene	**350**		190	5.2	ug/Kg	☼	02/13/12 09:11	02/16/12 14:58	1
Isophorone	ND		190	9.4	ug/Kg	☼	02/13/12 09:11	02/16/12 14:58	1
Naphthalene	**43**	**J**	190	3.1	ug/Kg	☼	02/13/12 09:11	02/16/12 14:58	1

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16017-1

Client Sample ID: TP-3 (0-2)
Date Collected: 02/07/12 16:10
Date Received: 02/09/12 13:40

Lab Sample ID: 480-16017-3
Matrix: Solid
Percent Solids: 88.9

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	ND		190	8.4	ug/Kg	☼	02/13/12 09:11	02/16/12 14:58	1
N-Nitrosodi-n-propylamine	ND		190	15	ug/Kg	☼	02/13/12 09:11	02/16/12 14:58	1
N-Nitrosodiphenylamine	ND		190	10	ug/Kg	☼	02/13/12 09:11	02/16/12 14:58	1
Phenanthrene	**1600**		190	4.0	ug/Kg	☼	02/13/12 09:11	02/16/12 14:58	1
Pyrene	**1700**		190	1.2	ug/Kg	☼	02/13/12 09:11	02/16/12 14:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*114*		*39 - 146*	*02/13/12 09:11*	*02/16/12 14:58*	*1*
2-Fluorobiphenyl	*107*		*37 - 120*	*02/13/12 09:11*	*02/16/12 14:58*	*1*
2-Fluorophenol	*90*		*18 - 120*	*02/13/12 09:11*	*02/16/12 14:58*	*1*
Nitrobenzene-d5	*103*		*34 - 132*	*02/13/12 09:11*	*02/16/12 14:58*	*1*
Phenol-d5	*102*		*11 - 120*	*02/13/12 09:11*	*02/16/12 14:58*	*1*
p-Terphenyl-d14	*112*		*65 - 153*	*02/13/12 09:11*	*02/16/12 14:58*	*1*

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		280	54	ug/Kg	☼	02/13/12 09:41	02/13/12 20:07	1
PCB-1221	ND		280	54	ug/Kg	☼	02/13/12 09:41	02/13/12 20:07	1
PCB-1232	ND		280	54	ug/Kg	☼	02/13/12 09:41	02/13/12 20:07	1
PCB-1242	ND		280	54	ug/Kg	☼	02/13/12 09:41	02/13/12 20:07	1
PCB-1248	ND		280	54	ug/Kg	☼	02/13/12 09:41	02/13/12 20:07	1
PCB-1254	ND		280	130	ug/Kg	☼	02/13/12 09:41	02/13/12 20:07	1
PCB-1260	ND		280	130	ug/Kg	☼	02/13/12 09:41	02/13/12 20:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*111*		*36 - 182*	*02/13/12 09:41*	*02/13/12 20:07*	*1*
DCB Decachlorobiphenyl	*108*		*36 - 182*	*02/13/12 09:41*	*02/13/12 20:07*	*1*
Tetrachloro-m-xylene	*102*		*24 - 172*	*02/13/12 09:41*	*02/13/12 20:07*	*1*
Tetrachloro-m-xylene	*112*		*24 - 172*	*02/13/12 09:41*	*02/13/12 20:07*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**6.3**		2.1		mg/Kg	☼	02/13/12 10:00	02/13/12 19:43	1
Barium	**470**		0.52		mg/Kg	☼	02/13/12 10:00	02/13/12 19:43	1
Cadmium	**0.75**		0.21		mg/Kg	☼	02/13/12 10:00	02/13/12 19:43	1
Chromium	**21.4**		2.6		mg/Kg	☼	02/13/12 10:00	02/14/12 17:04	5
Lead	**264**		1.0		mg/Kg	☼	02/13/12 10:00	02/13/12 19:43	1
Selenium	ND		20.7		mg/Kg	☼	02/13/12 10:00	02/14/12 17:04	5
Silver	ND		2.6		mg/Kg	☼	02/13/12 10:00	02/14/12 17:04	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.11**		0.022		mg/Kg	☼	02/14/12 11:40	02/14/12 13:43	1

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16017-1

Client Sample ID: TP-4 (0-2)
Date Collected: 02/07/12 12:45
Date Received: 02/09/12 13:40

Lab Sample ID: 480-16017-4
Matrix: Solid
Percent Solids: 83.1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.9	0.43	ug/Kg	☼		02/14/12 03:07	1
1,1,2,2-Tetrachloroethane	ND		5.9	0.96	ug/Kg	☼		02/14/12 03:07	1
1,1,2-Trichloroethane	ND		5.9	0.77	ug/Kg	☼		02/14/12 03:07	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.9	1.4	ug/Kg	☼		02/14/12 03:07	1
1,1-Dichloroethane	ND		5.9	0.73	ug/Kg	☼		02/14/12 03:07	1
1,1-Dichloroethene	ND		5.9	0.73	ug/Kg	☼		02/14/12 03:07	1
1,2,4-Trichlorobenzene	ND		5.9	0.36	ug/Kg	☼		02/14/12 03:07	1
1,2-Dibromo-3-Chloropropane	ND		5.9	3.0	ug/Kg	☼		02/14/12 03:07	1
1,2-Dibromoethane	ND		5.9	0.76	ug/Kg	☼		02/14/12 03:07	1
1,2-Dichlorobenzene	ND		5.9	0.46	ug/Kg	☼		02/14/12 03:07	1
1,2-Dichloroethane	ND		5.9	0.30	ug/Kg	☼		02/14/12 03:07	1
1,2-Dichloropropane	ND		5.9	3.0	ug/Kg	☼		02/14/12 03:07	1
1,3-Dichlorobenzene	ND		5.9	0.31	ug/Kg	☼		02/14/12 03:07	1
1,4-Dichlorobenzene	ND		5.9	0.83	ug/Kg	☼		02/14/12 03:07	1
2-Hexanone	ND		30	3.0	ug/Kg	☼		02/14/12 03:07	1
2-Butanone (MEK)	ND		30	2.2	ug/Kg	☼		02/14/12 03:07	1
4-Methyl-2-pentanone (MIBK)	ND		30	2.0	ug/Kg	☼		02/14/12 03:07	1
Acetone	ND		30	5.0	ug/Kg	☼		02/14/12 03:07	1
Benzene	ND		5.9	0.29	ug/Kg	☼		02/14/12 03:07	1
Bromodichloromethane	ND		5.9	0.80	ug/Kg	☼		02/14/12 03:07	1
Bromoform	ND		5.9	3.0	ug/Kg	☼		02/14/12 03:07	1
Bromomethane	ND		5.9	0.54	ug/Kg	☼		02/14/12 03:07	1
Carbon disulfide	ND		5.9	3.0	ug/Kg	☼		02/14/12 03:07	1
Carbon tetrachloride	ND		5.9	0.58	ug/Kg	☼		02/14/12 03:07	1
Chlorobenzene	ND		5.9	0.78	ug/Kg	☼		02/14/12 03:07	1
Dibromochloromethane	ND		5.9	0.76	ug/Kg	☼		02/14/12 03:07	1
Chloroethane	ND		5.9	1.3	ug/Kg	☼		02/14/12 03:07	1
Chloroform	ND		5.9	0.37	ug/Kg	☼		02/14/12 03:07	1
Chloromethane	ND		5.9	0.36	ug/Kg	☼		02/14/12 03:07	1
cis-1,2-Dichloroethene	ND		5.9	0.76	ug/Kg	☼		02/14/12 03:07	1
cis-1,3-Dichloropropene	ND		5.9	0.86	ug/Kg	☼		02/14/12 03:07	1
Cyclohexane	ND		5.9	0.83	ug/Kg	☼		02/14/12 03:07	1
Dichlorodifluoromethane	ND		5.9	0.49	ug/Kg	☼		02/14/12 03:07	1
Ethylbenzene	ND		5.9	0.41	ug/Kg	☼		02/14/12 03:07	1
Isopropylbenzene	ND		5.9	0.90	ug/Kg	☼		02/14/12 03:07	1
Methyl acetate	ND		5.9	1.1	ug/Kg	☼		02/14/12 03:07	1
Methyl tert-butyl ether	ND		5.9	0.58	ug/Kg	☼		02/14/12 03:07	1
Methylcyclohexane	ND		5.9	0.90	ug/Kg	☼		02/14/12 03:07	1
Methylene Chloride	**4.1**	**J**	5.9	2.7	ug/Kg	☼		02/14/12 03:07	1
Styrene	ND		5.9	0.30	ug/Kg	☼		02/14/12 03:07	1
Tetrachloroethene	ND		5.9	0.80	ug/Kg	☼		02/14/12 03:07	1
Toluene	ND		5.9	0.45	ug/Kg	☼		02/14/12 03:07	1
trans-1,2-Dichloroethene	ND		5.9	0.61	ug/Kg	☼		02/14/12 03:07	1
trans-1,3-Dichloropropene	ND		5.9	2.6	ug/Kg	☼		02/14/12 03:07	1
Trichloroethene	ND		5.9	1.3	ug/Kg	☼		02/14/12 03:07	1
Trichlorofluoromethane	ND		5.9	0.56	ug/Kg	☼		02/14/12 03:07	1
Vinyl chloride	ND		5.9	0.73	ug/Kg	☼		02/14/12 03:07	1
Xylenes, Total	ND		12	1.0	ug/Kg	☼		02/14/12 03:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*64 - 126*		*02/14/12 03:07*	*1*

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16017-1

Client Sample ID: TP-4 (0-2)
Date Collected: 02/07/12 12:45
Date Received: 02/09/12 13:40

Lab Sample ID: 480-16017-4
Matrix: Solid
Percent Solids: 83.1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*105*		*71 - 125*		*02/14/12 03:07*	*1*
4-Bromofluorobenzene (Surr)	*103*		*72 - 126*		*02/14/12 03:07*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	ND		200	31	ug/Kg	☼	02/13/12 09:11	02/16/12 15:22	1
2,6-Dinitrotoluene	ND		200	49	ug/Kg	☼	02/13/12 09:11	02/16/12 15:22	1
2-Chloronaphthalene	ND		200	13	ug/Kg	☼	02/13/12 09:11	02/16/12 15:22	1
2-Methylnaphthalene	ND		200	2.4	ug/Kg	☼	02/13/12 09:11	02/16/12 15:22	1
2-Nitroaniline	ND		390	64	ug/Kg	☼	02/13/12 09:11	02/16/12 15:22	1
3,3'-Dichlorobenzidine	ND		200	170	ug/Kg	☼	02/13/12 09:11	02/16/12 15:22	1
3-Nitroaniline	ND		390	46	ug/Kg	☼	02/13/12 09:11	02/16/12 15:22	1
4-Bromophenyl phenyl ether	ND		200	63	ug/Kg	☼	02/13/12 09:11	02/16/12 15:22	1
4-Chloroaniline	ND		200	58	ug/Kg	☼	02/13/12 09:11	02/16/12 15:22	1
4-Chlorophenyl phenyl ether	ND		200	4.2	ug/Kg	☼	02/13/12 09:11	02/16/12 15:22	1
4-Nitroaniline	ND		390	22	ug/Kg	☼	02/13/12 09:11	02/16/12 15:22	1
Acenaphthene	ND		200	2.3	ug/Kg	☼	02/13/12 09:11	02/16/12 15:22	1
Acenaphthylene	ND		200	1.6	ug/Kg	☼	02/13/12 09:11	02/16/12 15:22	1
Acetophenone	ND		200	10	ug/Kg	☼	02/13/12 09:11	02/16/12 15:22	1
Anthracene	**44**	**J**	200	5.1	ug/Kg	☼	02/13/12 09:11	02/16/12 15:22	1
Atrazine	ND	*	200	8.9	ug/Kg	☼	02/13/12 09:11	02/16/12 15:22	1
Benzaldehyde	ND		200	22	ug/Kg	☼	02/13/12 09:11	02/16/12 15:22	1
Benzo(a)anthracene	**160**	**J**	200	3.4	ug/Kg	☼	02/13/12 09:11	02/16/12 15:22	1
Benzo(a)pyrene	**200**		200	4.8	ug/Kg	☼	02/13/12 09:11	02/16/12 15:22	1
Benzo(b)fluoranthene	**200**		200	3.9	ug/Kg	☼	02/13/12 09:11	02/16/12 15:22	1
Benzo(g,h,i)perylene	**61**	**J**	200	2.4	ug/Kg	☼	02/13/12 09:11	02/16/12 15:22	1
Benzo(k)fluoranthene	**170**	**J**	200	2.2	ug/Kg	☼	02/13/12 09:11	02/16/12 15:22	1
Biphenyl	ND		200	12	ug/Kg	☼	02/13/12 09:11	02/16/12 15:22	1
bis (2-chloroisopropyl) ether	ND		200	21	ug/Kg	☼	02/13/12 09:11	02/16/12 15:22	1
Bis(2-chloroethoxy)methane	ND		200	11	ug/Kg	☼	02/13/12 09:11	02/16/12 15:22	1
Bis(2-chloroethyl)ether	ND		200	17	ug/Kg	☼	02/13/12 09:11	02/16/12 15:22	1
Bis(2-ethylhexyl) phthalate	ND		200	64	ug/Kg	☼	02/13/12 09:11	02/16/12 15:22	1
Butyl benzyl phthalate	ND		200	53	ug/Kg	☼	02/13/12 09:11	02/16/12 15:22	1
Caprolactam	ND		200	86	ug/Kg	☼	02/13/12 09:11	02/16/12 15:22	1
Carbazole	ND		200	2.3	ug/Kg	☼	02/13/12 09:11	02/16/12 15:22	1
Chrysene	**180**	**J**	200	2.0	ug/Kg	☼	02/13/12 09:11	02/16/12 15:22	1
Dibenz(a,h)anthracene	**20**	**J**	200	2.3	ug/Kg	☼	02/13/12 09:11	02/16/12 15:22	1
Dibenzofuran	ND		200	2.1	ug/Kg	☼	02/13/12 09:11	02/16/12 15:22	1
Diethyl phthalate	ND		200	6.0	ug/Kg	☼	02/13/12 09:11	02/16/12 15:22	1
Dimethyl phthalate	ND		200	5.2	ug/Kg	☼	02/13/12 09:11	02/16/12 15:22	1
Di-n-butyl phthalate	ND		200	69	ug/Kg	☼	02/13/12 09:11	02/16/12 15:22	1
Di-n-octyl phthalate	ND		200	4.7	ug/Kg	☼	02/13/12 09:11	02/16/12 15:22	1
Fluoranthene	**350**		200	2.9	ug/Kg	☼	02/13/12 09:11	02/16/12 15:22	1
Fluorene	ND		200	4.6	ug/Kg	☼	02/13/12 09:11	02/16/12 15:22	1
Hexachlorobenzene	ND		200	9.9	ug/Kg	☼	02/13/12 09:11	02/16/12 15:22	1
Hexachlorobutadiene	ND		200	10	ug/Kg	☼	02/13/12 09:11	02/16/12 15:22	1
Hexachlorocyclopentadiene	ND		200	60	ug/Kg	☼	02/13/12 09:11	02/16/12 15:22	1
Hexachloroethane	ND		200	15	ug/Kg	☼	02/13/12 09:11	02/16/12 15:22	1
Indeno(1,2,3-cd)pyrene	**65**	**J**	200	5.5	ug/Kg	☼	02/13/12 09:11	02/16/12 15:22	1
Isophorone	ND		200	9.9	ug/Kg	☼	02/13/12 09:11	02/16/12 15:22	1
Naphthalene	ND		200	3.3	ug/Kg	☼	02/13/12 09:11	02/16/12 15:22	1

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16017-1

Client Sample ID: TP-4 (0-2)
Date Collected: 02/07/12 12:45
Date Received: 02/09/12 13:40

Lab Sample ID: 480-16017-4
Matrix: Solid
Percent Solids: 83.1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	ND		200	8.8	ug/Kg	☼	02/13/12 09:11	02/16/12 15:22	1
N-Nitrosodi-n-propylamine	ND		200	16	ug/Kg	☼	02/13/12 09:11	02/16/12 15:22	1
N-Nitrosodiphenylamine	ND		200	11	ug/Kg	☼	02/13/12 09:11	02/16/12 15:22	1
Phenanthrene	**160**	**J**	200	4.2	ug/Kg	☼	02/13/12 09:11	02/16/12 15:22	1
Pyrene	**290**		200	1.3	ug/Kg	☼	02/13/12 09:11	02/16/12 15:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*116*		*39 - 146*	*02/13/12 09:11*	*02/16/12 15:22*	*1*
2-Fluorobiphenyl	*106*		*37 - 120*	*02/13/12 09:11*	*02/16/12 15:22*	*1*
2-Fluorophenol	*85*		*18 - 120*	*02/13/12 09:11*	*02/16/12 15:22*	*1*
Nitrobenzene-d5	*97*		*34 - 132*	*02/13/12 09:11*	*02/16/12 15:22*	*1*
Phenol-d5	*96*		*11 - 120*	*02/13/12 09:11*	*02/16/12 15:22*	*1*
p-Terphenyl-d14	*112*		*65 - 153*	*02/13/12 09:11*	*02/16/12 15:22*	*1*

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		270	52	ug/Kg	☼	02/13/12 09:41	02/13/12 20:22	1
PCB-1221	ND		270	52	ug/Kg	☼	02/13/12 09:41	02/13/12 20:22	1
PCB-1232	ND		270	52	ug/Kg	☼	02/13/12 09:41	02/13/12 20:22	1
PCB-1242	ND		270	52	ug/Kg	☼	02/13/12 09:41	02/13/12 20:22	1
PCB-1248	ND		270	52	ug/Kg	☼	02/13/12 09:41	02/13/12 20:22	1
PCB-1254	ND		270	130	ug/Kg	☼	02/13/12 09:41	02/13/12 20:22	1
PCB-1260	ND		270	130	ug/Kg	☼	02/13/12 09:41	02/13/12 20:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*99*		*36 - 182*	*02/13/12 09:41*	*02/13/12 20:22*	*1*
DCB Decachlorobiphenyl	*96*		*36 - 182*	*02/13/12 09:41*	*02/13/12 20:22*	*1*
Tetrachloro-m-xylene	*91*		*24 - 172*	*02/13/12 09:41*	*02/13/12 20:22*	*1*
Tetrachloro-m-xylene	*99*		*24 - 172*	*02/13/12 09:41*	*02/13/12 20:22*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**7.8**		2.5		mg/Kg	☼	02/13/12 10:00	02/13/12 19:45	1
Barium	**110**		0.63		mg/Kg	☼	02/13/12 10:00	02/13/12 19:45	1
Cadmium	**0.28**		0.25		mg/Kg	☼	02/13/12 10:00	02/13/12 19:45	1
Chromium	**18.7**		0.63		mg/Kg	☼	02/13/12 10:00	02/13/12 19:45	1
Lead	**18.9**		1.3		mg/Kg	☼	02/13/12 10:00	02/13/12 19:45	1
Selenium	ND		5.0		mg/Kg	☼	02/13/12 10:00	02/13/12 19:45	1
Silver	ND		0.63		mg/Kg	☼	02/13/12 10:00	02/13/12 19:45	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.026		mg/Kg	☼	02/14/12 11:40	02/14/12 13:45	1

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16017-1

Client Sample ID: TP-5 (0-2)
Date Collected: 02/07/12 11:45
Date Received: 02/09/12 13:40

Lab Sample ID: 480-16017-5
Matrix: Solid
Percent Solids: 88.7

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.6	0.41	ug/Kg	☼		02/14/12 03:32	1
1,1,2,2-Tetrachloroethane	ND		5.6	0.91	ug/Kg	☼		02/14/12 03:32	1
1,1,2-Trichloroethane	ND		5.6	0.73	ug/Kg	☼		02/14/12 03:32	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.6	1.3	ug/Kg	☼		02/14/12 03:32	1
1,1-Dichloroethane	ND		5.6	0.68	ug/Kg	☼		02/14/12 03:32	1
1,1-Dichloroethene	ND		5.6	0.69	ug/Kg	☼		02/14/12 03:32	1
1,2,4-Trichlorobenzene	ND		5.6	0.34	ug/Kg	☼		02/14/12 03:32	1
1,2-Dibromo-3-Chloropropane	ND		5.6	2.8	ug/Kg	☼		02/14/12 03:32	1
1,2-Dibromoethane	ND		5.6	0.72	ug/Kg	☼		02/14/12 03:32	1
1,2-Dichlorobenzene	ND		5.6	0.44	ug/Kg	☼		02/14/12 03:32	1
1,2-Dichloroethane	ND		5.6	0.28	ug/Kg	☼		02/14/12 03:32	1
1,2-Dichloropropane	ND		5.6	2.8	ug/Kg	☼		02/14/12 03:32	1
1,3-Dichlorobenzene	ND		5.6	0.29	ug/Kg	☼		02/14/12 03:32	1
1,4-Dichlorobenzene	ND		5.6	0.79	ug/Kg	☼		02/14/12 03:32	1
2-Hexanone	ND		28	2.8	ug/Kg	☼		02/14/12 03:32	1
2-Butanone (MEK)	ND		28	2.1	ug/Kg	☼		02/14/12 03:32	1
4-Methyl-2-pentanone (MIBK)	ND		28	1.8	ug/Kg	☼		02/14/12 03:32	1
Acetone	ND		28	4.7	ug/Kg	☼		02/14/12 03:32	1
Benzene	ND		5.6	0.28	ug/Kg	☼		02/14/12 03:32	1
Bromodichloromethane	ND		5.6	0.75	ug/Kg	☼		02/14/12 03:32	1
Bromoform	ND		5.6	2.8	ug/Kg	☼		02/14/12 03:32	1
Bromomethane	ND		5.6	0.51	ug/Kg	☼		02/14/12 03:32	1
Carbon disulfide	ND		5.6	2.8	ug/Kg	☼		02/14/12 03:32	1
Carbon tetrachloride	ND		5.6	0.54	ug/Kg	☼		02/14/12 03:32	1
Chlorobenzene	ND		5.6	0.74	ug/Kg	☼		02/14/12 03:32	1
Dibromochloromethane	ND		5.6	0.72	ug/Kg	☼		02/14/12 03:32	1
Chloroethane	ND		5.6	1.3	ug/Kg	☼		02/14/12 03:32	1
Chloroform	ND		5.6	0.35	ug/Kg	☼		02/14/12 03:32	1
Chloromethane	ND		5.6	0.34	ug/Kg	☼		02/14/12 03:32	1
cis-1,2-Dichloroethene	ND		5.6	0.72	ug/Kg	☼		02/14/12 03:32	1
cis-1,3-Dichloropropene	ND		5.6	0.81	ug/Kg	☼		02/14/12 03:32	1
Cyclohexane	ND		5.6	0.79	ug/Kg	☼		02/14/12 03:32	1
Dichlorodifluoromethane	ND		5.6	0.46	ug/Kg	☼		02/14/12 03:32	1
Ethylbenzene	ND		5.6	0.39	ug/Kg	☼		02/14/12 03:32	1
Isopropylbenzene	ND		5.6	0.85	ug/Kg	☼		02/14/12 03:32	1
Methyl acetate	ND		5.6	1.0	ug/Kg	☼		02/14/12 03:32	1
Methyl tert-butyl ether	ND		5.6	0.55	ug/Kg	☼		02/14/12 03:32	1
Methylcyclohexane	ND		5.6	0.85	ug/Kg	☼		02/14/12 03:32	1
Methylene Chloride	ND		5.6	2.6	ug/Kg	☼		02/14/12 03:32	1
Styrene	ND		5.6	0.28	ug/Kg	☼		02/14/12 03:32	1
Tetrachloroethene	ND		5.6	0.75	ug/Kg	☼		02/14/12 03:32	1
Toluene	ND		5.6	0.42	ug/Kg	☼		02/14/12 03:32	1
trans-1,2-Dichloroethene	ND		5.6	0.58	ug/Kg	☼		02/14/12 03:32	1
trans-1,3-Dichloropropene	ND		5.6	2.5	ug/Kg	☼		02/14/12 03:32	1
Trichloroethene	ND		5.6	1.2	ug/Kg	☼		02/14/12 03:32	1
Trichlorofluoromethane	ND		5.6	0.53	ug/Kg	☼		02/14/12 03:32	1
Vinyl chloride	ND		5.6	0.68	ug/Kg	☼		02/14/12 03:32	1
Xylenes, Total	ND		11	0.94	ug/Kg	☼		02/14/12 03:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*64 - 126*		*02/14/12 03:32*	*1*

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16017-1

Client Sample ID: TP-5 (0-2)
Date Collected: 02/07/12 11:45
Date Received: 02/09/12 13:40

Lab Sample ID: 480-16017-5
Matrix: Solid
Percent Solids: 88.7

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*111*		*71 - 125*		*02/14/12 03:32*	*1*
4-Bromofluorobenzene (Surr)	*108*		*72 - 126*		*02/14/12 03:32*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	ND		1900	290	ug/Kg	☼	02/13/12 09:11	02/16/12 15:45	10
2,6-Dinitrotoluene	ND		1900	460	ug/Kg	☼	02/13/12 09:11	02/16/12 15:45	10
2-Chloronaphthalene	ND		1900	130	ug/Kg	☼	02/13/12 09:11	02/16/12 15:45	10
2-Methylnaphthalene	ND		1900	23	ug/Kg	☼	02/13/12 09:11	02/16/12 15:45	10
2-Nitroaniline	ND		3700	610	ug/Kg	☼	02/13/12 09:11	02/16/12 15:45	10
3,3'-Dichlorobenzidine	ND		1900	1700	ug/Kg	☼	02/13/12 09:11	02/16/12 15:45	10
3-Nitroaniline	ND		3700	430	ug/Kg	☼	02/13/12 09:11	02/16/12 15:45	10
4-Bromophenyl phenyl ether	ND		1900	600	ug/Kg	☼	02/13/12 09:11	02/16/12 15:45	10
4-Chloroaniline	ND		1900	550	ug/Kg	☼	02/13/12 09:11	02/16/12 15:45	10
4-Chlorophenyl phenyl ether	ND		1900	40	ug/Kg	☼	02/13/12 09:11	02/16/12 15:45	10
4-Nitroaniline	ND		3700	210	ug/Kg	☼	02/13/12 09:11	02/16/12 15:45	10
Acenaphthene	ND		1900	22	ug/Kg	☼	02/13/12 09:11	02/16/12 15:45	10
Acenaphthylene	ND		1900	15	ug/Kg	☼	02/13/12 09:11	02/16/12 15:45	10
Acetophenone	ND		1900	97	ug/Kg	☼	02/13/12 09:11	02/16/12 15:45	10
Anthracene	ND		1900	48	ug/Kg	☼	02/13/12 09:11	02/16/12 15:45	10
Atrazine	ND	*	1900	84	ug/Kg	☼	02/13/12 09:11	02/16/12 15:45	10
Benzaldehyde	ND		1900	210	ug/Kg	☼	02/13/12 09:11	02/16/12 15:45	10
Benzo(a)anthracene	**290**	**J**	1900	33	ug/Kg	☼	02/13/12 09:11	02/16/12 15:45	10
Benzo(a)pyrene	**270**	**J**	1900	45	ug/Kg	☼	02/13/12 09:11	02/16/12 15:45	10
Benzo(b)fluoranthene	**470**	**J**	1900	37	ug/Kg	☼	02/13/12 09:11	02/16/12 15:45	10
Benzo(g,h,i)perylene	ND		1900	23	ug/Kg	☼	02/13/12 09:11	02/16/12 15:45	10
Benzo(k)fluoranthene	**210**	**J**	1900	21	ug/Kg	☼	02/13/12 09:11	02/16/12 15:45	10
Biphenyl	ND		1900	120	ug/Kg	☼	02/13/12 09:11	02/16/12 15:45	10
bis (2-chloroisopropyl) ether	ND		1900	200	ug/Kg	☼	02/13/12 09:11	02/16/12 15:45	10
Bis(2-chloroethoxy)methane	ND		1900	100	ug/Kg	☼	02/13/12 09:11	02/16/12 15:45	10
Bis(2-chloroethyl)ether	ND		1900	160	ug/Kg	☼	02/13/12 09:11	02/16/12 15:45	10
Bis(2-ethylhexyl) phthalate	ND		1900	610	ug/Kg	☼	02/13/12 09:11	02/16/12 15:45	10
Butyl benzyl phthalate	ND		1900	510	ug/Kg	☼	02/13/12 09:11	02/16/12 15:45	10
Caprolactam	ND		1900	820	ug/Kg	☼	02/13/12 09:11	02/16/12 15:45	10
Carbazole	ND		1900	22	ug/Kg	☼	02/13/12 09:11	02/16/12 15:45	10
Chrysene	**280**	**J**	1900	19	ug/Kg	☼	02/13/12 09:11	02/16/12 15:45	10
Dibenz(a,h)anthracene	ND		1900	22	ug/Kg	☼	02/13/12 09:11	02/16/12 15:45	10
Dibenzofuran	ND		1900	20	ug/Kg	☼	02/13/12 09:11	02/16/12 15:45	10
Diethyl phthalate	ND		1900	57	ug/Kg	☼	02/13/12 09:11	02/16/12 15:45	10
Dimethyl phthalate	ND		1900	49	ug/Kg	☼	02/13/12 09:11	02/16/12 15:45	10
Di-n-butyl phthalate	ND		1900	650	ug/Kg	☼	02/13/12 09:11	02/16/12 15:45	10
Di-n-octyl phthalate	ND		1900	44	ug/Kg	☼	02/13/12 09:11	02/16/12 15:45	10
Fluoranthene	**510**	**J**	1900	27	ug/Kg	☼	02/13/12 09:11	02/16/12 15:45	10
Fluorene	ND		1900	43	ug/Kg	☼	02/13/12 09:11	02/16/12 15:45	10
Hexachlorobenzene	ND		1900	94	ug/Kg	☼	02/13/12 09:11	02/16/12 15:45	10
Hexachlorobutadiene	ND		1900	97	ug/Kg	☼	02/13/12 09:11	02/16/12 15:45	10
Hexachlorocyclopentadiene	ND		1900	570	ug/Kg	☼	02/13/12 09:11	02/16/12 15:45	10
Hexachloroethane	ND		1900	150	ug/Kg	☼	02/13/12 09:11	02/16/12 15:45	10
Indeno(1,2,3-cd)pyrene	ND		1900	52	ug/Kg	☼	02/13/12 09:11	02/16/12 15:45	10
Isophorone	ND		1900	94	ug/Kg	☼	02/13/12 09:11	02/16/12 15:45	10
Naphthalene	ND		1900	31	ug/Kg	☼	02/13/12 09:11	02/16/12 15:45	10

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16017-1

Client Sample ID: TP-5 (0-2)
Date Collected: 02/07/12 11:45
Date Received: 02/09/12 13:40

Lab Sample ID: 480-16017-5
Matrix: Solid
Percent Solids: 88.7

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	ND		1900	84	ug/Kg	☼	02/13/12 09:11	02/16/12 15:45	10
N-Nitrosodi-n-propylamine	ND		1900	150	ug/Kg	☼	02/13/12 09:11	02/16/12 15:45	10
N-Nitrosodiphenylamine	ND		1900	100	ug/Kg	☼	02/13/12 09:11	02/16/12 15:45	10
Phenanthrene	**290**	**J**	1900	40	ug/Kg	☼	02/13/12 09:11	02/16/12 15:45	10
Pyrene	**410**	**J**	1900	12	ug/Kg	☼	02/13/12 09:11	02/16/12 15:45	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*104*		*39 - 146*	*02/13/12 09:11*	*02/16/12 15:45*	*10*
2-Fluorobiphenyl	*107*		*37 - 120*	*02/13/12 09:11*	*02/16/12 15:45*	*10*
2-Fluorophenol	*89*		*18 - 120*	*02/13/12 09:11*	*02/16/12 15:45*	*10*
Nitrobenzene-d5	*96*		*34 - 132*	*02/13/12 09:11*	*02/16/12 15:45*	*10*
Phenol-d5	*98*		*11 - 120*	*02/13/12 09:11*	*02/16/12 15:45*	*10*
p-Terphenyl-d14	*115*		*65 - 153*	*02/13/12 09:11*	*02/16/12 15:45*	*10*

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		200	38	ug/Kg	☼	02/13/12 09:41	02/13/12 20:37	1
PCB-1221	ND		200	38	ug/Kg	☼	02/13/12 09:41	02/13/12 20:37	1
PCB-1232	ND		200	38	ug/Kg	☼	02/13/12 09:41	02/13/12 20:37	1
PCB-1242	ND		200	38	ug/Kg	☼	02/13/12 09:41	02/13/12 20:37	1
PCB-1248	ND		200	38	ug/Kg	☼	02/13/12 09:41	02/13/12 20:37	1
PCB-1254	ND		200	92	ug/Kg	☼	02/13/12 09:41	02/13/12 20:37	1
PCB-1260	ND		200	92	ug/Kg	☼	02/13/12 09:41	02/13/12 20:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*110*		*36 - 182*	*02/13/12 09:41*	*02/13/12 20:37*	*1*
DCB Decachlorobiphenyl	*107*		*36 - 182*	*02/13/12 09:41*	*02/13/12 20:37*	*1*
Tetrachloro-m-xylene	*102*		*24 - 172*	*02/13/12 09:41*	*02/13/12 20:37*	*1*
Tetrachloro-m-xylene	*111*		*24 - 172*	*02/13/12 09:41*	*02/13/12 20:37*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**9.2**		2.1		mg/Kg	☼	02/13/12 10:00	02/13/12 19:52	1
Barium	**92.6**		0.53		mg/Kg	☼	02/13/12 10:00	02/13/12 19:52	1
Cadmium	**0.36**		0.21		mg/Kg	☼	02/13/12 10:00	02/13/12 19:52	1
Chromium	**21.2**		0.53		mg/Kg	☼	02/13/12 10:00	02/13/12 19:52	1
Lead	**35.4**		1.1		mg/Kg	☼	02/13/12 10:00	02/13/12 19:52	1
Selenium	ND		4.3		mg/Kg	☼	02/13/12 10:00	02/13/12 19:52	1
Silver	ND		0.53		mg/Kg	☼	02/13/12 10:00	02/13/12 19:52	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.037**		0.021		mg/Kg	☼	02/14/12 11:40	02/14/12 13:46	1

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16017-1

Client Sample ID: TP-11 (0-2)
Date Collected: 02/07/12 11:05
Date Received: 02/09/12 13:40

Lab Sample ID: 480-16017-6
Matrix: Solid
Percent Solids: 83.9

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.7	0.42	ug/Kg	☼		02/14/12 03:58	1
1,1,2,2-Tetrachloroethane	ND		5.7	0.93	ug/Kg	☼		02/14/12 03:58	1
1,1,2-Trichloroethane	ND		5.7	0.74	ug/Kg	☼		02/14/12 03:58	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.7	1.3	ug/Kg	☼		02/14/12 03:58	1
1,1-Dichloroethane	ND		5.7	0.70	ug/Kg	☼		02/14/12 03:58	1
1,1-Dichloroethene	ND		5.7	0.70	ug/Kg	☼		02/14/12 03:58	1
1,2,4-Trichlorobenzene	ND		5.7	0.35	ug/Kg	☼		02/14/12 03:58	1
1,2-Dibromo-3-Chloropropane	ND		5.7	2.9	ug/Kg	☼		02/14/12 03:58	1
1,2-Dibromoethane	ND		5.7	0.73	ug/Kg	☼		02/14/12 03:58	1
1,2-Dichlorobenzene	ND		5.7	0.45	ug/Kg	☼		02/14/12 03:58	1
1,2-Dichloroethane	ND		5.7	0.29	ug/Kg	☼		02/14/12 03:58	1
1,2-Dichloropropane	ND		5.7	2.9	ug/Kg	☼		02/14/12 03:58	1
1,3-Dichlorobenzene	ND		5.7	0.29	ug/Kg	☼		02/14/12 03:58	1
1,4-Dichlorobenzene	ND		5.7	0.80	ug/Kg	☼		02/14/12 03:58	1
2-Hexanone	ND		29	2.9	ug/Kg	☼		02/14/12 03:58	1
2-Butanone (MEK)	ND		29	2.1	ug/Kg	☼		02/14/12 03:58	1
4-Methyl-2-pentanone (MIBK)	ND		29	1.9	ug/Kg	☼		02/14/12 03:58	1
Acetone	ND		29	4.8	ug/Kg	☼		02/14/12 03:58	1
Benzene	ND		5.7	0.28	ug/Kg	☼		02/14/12 03:58	1
Bromodichloromethane	ND		5.7	0.77	ug/Kg	☼		02/14/12 03:58	1
Bromoform	ND		5.7	2.9	ug/Kg	☼		02/14/12 03:58	1
Bromomethane	ND		5.7	0.51	ug/Kg	☼		02/14/12 03:58	1
Carbon disulfide	ND		5.7	2.9	ug/Kg	☼		02/14/12 03:58	1
Carbon tetrachloride	ND		5.7	0.55	ug/Kg	☼		02/14/12 03:58	1
Chlorobenzene	ND		5.7	0.75	ug/Kg	☼		02/14/12 03:58	1
Dibromochloromethane	ND		5.7	0.73	ug/Kg	☼		02/14/12 03:58	1
Chloroethane	ND		5.7	1.3	ug/Kg	☼		02/14/12 03:58	1
Chloroform	ND		5.7	0.35	ug/Kg	☼		02/14/12 03:58	1
Chloromethane	ND		5.7	0.35	ug/Kg	☼		02/14/12 03:58	1
cis-1,2-Dichloroethene	ND		5.7	0.73	ug/Kg	☼		02/14/12 03:58	1
cis-1,3-Dichloropropene	ND		5.7	0.82	ug/Kg	☼		02/14/12 03:58	1
Cyclohexane	ND		5.7	0.80	ug/Kg	☼		02/14/12 03:58	1
Dichlorodifluoromethane	ND		5.7	0.47	ug/Kg	☼		02/14/12 03:58	1
Ethylbenzene	ND		5.7	0.39	ug/Kg	☼		02/14/12 03:58	1
Isopropylbenzene	ND		5.7	0.86	ug/Kg	☼		02/14/12 03:58	1
Methyl acetate	ND		5.7	1.1	ug/Kg	☼		02/14/12 03:58	1
Methyl tert-butyl ether	ND		5.7	0.56	ug/Kg	☼		02/14/12 03:58	1
Methylcyclohexane	ND		5.7	0.87	ug/Kg	☼		02/14/12 03:58	1
Methylene Chloride	**3.2**	**J**	5.7	2.6	ug/Kg	☼		02/14/12 03:58	1
Styrene	ND		5.7	0.29	ug/Kg	☼		02/14/12 03:58	1
Tetrachloroethene	ND		5.7	0.77	ug/Kg	☼		02/14/12 03:58	1
Toluene	ND		5.7	0.43	ug/Kg	☼		02/14/12 03:58	1
trans-1,2-Dichloroethene	ND		5.7	0.59	ug/Kg	☼		02/14/12 03:58	1
trans-1,3-Dichloropropene	ND		5.7	2.5	ug/Kg	☼		02/14/12 03:58	1
Trichloroethene	ND		5.7	1.3	ug/Kg	☼		02/14/12 03:58	1
Trichlorofluoromethane	ND		5.7	0.54	ug/Kg	☼		02/14/12 03:58	1
Vinyl chloride	ND		5.7	0.70	ug/Kg	☼		02/14/12 03:58	1
Xylenes, Total	ND		11	0.96	ug/Kg	☼		02/14/12 03:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*64 - 126*		*02/14/12 03:58*	*1*

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16017-1

Client Sample ID: TP-11 (0-2)
Date Collected: 02/07/12 11:05
Date Received: 02/09/12 13:40

Lab Sample ID: 480-16017-6
Matrix: Solid
Percent Solids: 83.9

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*107*		*71 - 125*		*02/14/12 03:58*	*1*
4-Bromofluorobenzene (Surr)	*104*		*72 - 126*		*02/14/12 03:58*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	ND		200	31	ug/Kg	☼	02/13/12 09:11	02/16/12 16:09	1
2,6-Dinitrotoluene	ND		200	49	ug/Kg	☼	02/13/12 09:11	02/16/12 16:09	1
2-Chloronaphthalene	ND		200	13	ug/Kg	☼	02/13/12 09:11	02/16/12 16:09	1
2-Methylnaphthalene	**15**	**J**	200	2.4	ug/Kg	☼	02/13/12 09:11	02/16/12 16:09	1
2-Nitroaniline	ND		390	64	ug/Kg	☼	02/13/12 09:11	02/16/12 16:09	1
3,3'-Dichlorobenzidine	ND		200	170	ug/Kg	☼	02/13/12 09:11	02/16/12 16:09	1
3-Nitroaniline	ND		390	46	ug/Kg	☼	02/13/12 09:11	02/16/12 16:09	1
4-Bromophenyl phenyl ether	ND		200	63	ug/Kg	☼	02/13/12 09:11	02/16/12 16:09	1
4-Chloroaniline	ND		200	58	ug/Kg	☼	02/13/12 09:11	02/16/12 16:09	1
4-Chlorophenyl phenyl ether	ND		200	4.2	ug/Kg	☼	02/13/12 09:11	02/16/12 16:09	1
4-Nitroaniline	ND		390	22	ug/Kg	☼	02/13/12 09:11	02/16/12 16:09	1
Acenaphthene	ND		200	2.3	ug/Kg	☼	02/13/12 09:11	02/16/12 16:09	1
Acenaphthylene	**22**	**J**	200	1.6	ug/Kg	☼	02/13/12 09:11	02/16/12 16:09	1
Acetophenone	ND		200	10	ug/Kg	☼	02/13/12 09:11	02/16/12 16:09	1
Anthracene	**35**	**J**	200	5.1	ug/Kg	☼	02/13/12 09:11	02/16/12 16:09	1
Atrazine	ND	*	200	8.9	ug/Kg	☼	02/13/12 09:11	02/16/12 16:09	1
Benzaldehyde	ND		200	22	ug/Kg	☼	02/13/12 09:11	02/16/12 16:09	1
Benzo(a)anthracene	**160**	**J**	200	3.4	ug/Kg	☼	02/13/12 09:11	02/16/12 16:09	1
Benzo(a)pyrene	**140**	**J**	200	4.8	ug/Kg	☼	02/13/12 09:11	02/16/12 16:09	1
Benzo(b)fluoranthene	**260**		200	3.9	ug/Kg	☼	02/13/12 09:11	02/16/12 16:09	1
Benzo(g,h,i)perylene	**52**	**J**	200	2.4	ug/Kg	☼	02/13/12 09:11	02/16/12 16:09	1
Benzo(k)fluoranthene	**130**	**J**	200	2.2	ug/Kg	☼	02/13/12 09:11	02/16/12 16:09	1
Biphenyl	ND		200	12	ug/Kg	☼	02/13/12 09:11	02/16/12 16:09	1
bis (2-chloroisopropyl) ether	ND		200	21	ug/Kg	☼	02/13/12 09:11	02/16/12 16:09	1
Bis(2-chloroethoxy)methane	ND		200	11	ug/Kg	☼	02/13/12 09:11	02/16/12 16:09	1
Bis(2-chloroethyl)ether	ND		200	17	ug/Kg	☼	02/13/12 09:11	02/16/12 16:09	1
Bis(2-ethylhexyl) phthalate	ND		200	64	ug/Kg	☼	02/13/12 09:11	02/16/12 16:09	1
Butyl benzyl phthalate	ND		200	53	ug/Kg	☼	02/13/12 09:11	02/16/12 16:09	1
Caprolactam	ND		200	86	ug/Kg	☼	02/13/12 09:11	02/16/12 16:09	1
Carbazole	ND		200	2.3	ug/Kg	☼	02/13/12 09:11	02/16/12 16:09	1
Chrysene	**150**	**J**	200	2.0	ug/Kg	☼	02/13/12 09:11	02/16/12 16:09	1
Dibenz(a,h)anthracene	ND		200	2.3	ug/Kg	☼	02/13/12 09:11	02/16/12 16:09	1
Dibenzofuran	ND		200	2.1	ug/Kg	☼	02/13/12 09:11	02/16/12 16:09	1
Diethyl phthalate	ND		200	6.0	ug/Kg	☼	02/13/12 09:11	02/16/12 16:09	1
Dimethyl phthalate	ND		200	5.2	ug/Kg	☼	02/13/12 09:11	02/16/12 16:09	1
Di-n-butyl phthalate	ND		200	69	ug/Kg	☼	02/13/12 09:11	02/16/12 16:09	1
Di-n-octyl phthalate	ND		200	4.7	ug/Kg	☼	02/13/12 09:11	02/16/12 16:09	1
Fluoranthene	**270**		200	2.9	ug/Kg	☼	02/13/12 09:11	02/16/12 16:09	1
Fluorene	ND		200	4.6	ug/Kg	☼	02/13/12 09:11	02/16/12 16:09	1
Hexachlorobenzene	ND		200	9.9	ug/Kg	☼	02/13/12 09:11	02/16/12 16:09	1
Hexachlorobutadiene	ND		200	10	ug/Kg	☼	02/13/12 09:11	02/16/12 16:09	1
Hexachlorocyclopentadiene	ND		200	60	ug/Kg	☼	02/13/12 09:11	02/16/12 16:09	1
Hexachloroethane	ND		200	15	ug/Kg	☼	02/13/12 09:11	02/16/12 16:09	1
Indeno(1,2,3-cd)pyrene	**60**	**J**	200	5.5	ug/Kg	☼	02/13/12 09:11	02/16/12 16:09	1
Isophorone	ND		200	9.9	ug/Kg	☼	02/13/12 09:11	02/16/12 16:09	1
Naphthalene	ND		200	3.3	ug/Kg	☼	02/13/12 09:11	02/16/12 16:09	1

Client Sample ID: TP-11 (0-2)
Date Collected: 02/07/12 11:05
Date Received: 02/09/12 13:40

Lab Sample ID: 480-16017-6
Matrix: Solid
Percent Solids: 83.9

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	ND		200	8.8	ug/Kg	☼	02/13/12 09:11	02/16/12 16:09	1
N-Nitrosodi-n-propylamine	ND		200	16	ug/Kg	☼	02/13/12 09:11	02/16/12 16:09	1
N-Nitrosodiphenylamine	ND		200	11	ug/Kg	☼	02/13/12 09:11	02/16/12 16:09	1
Phenanthrene	**130**	**J**	200	4.2	ug/Kg	☼	02/13/12 09:11	02/16/12 16:09	1
Pyrene	**200**		200	1.3	ug/Kg	☼	02/13/12 09:11	02/16/12 16:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*119*		*39 - 146*	*02/13/12 09:11*	*02/16/12 16:09*	*1*
2-Fluorobiphenyl	*111*		*37 - 120*	*02/13/12 09:11*	*02/16/12 16:09*	*1*
2-Fluorophenol	*91*		*18 - 120*	*02/13/12 09:11*	*02/16/12 16:09*	*1*
Nitrobenzene-d5	*106*		*34 - 132*	*02/13/12 09:11*	*02/16/12 16:09*	*1*
Phenol-d5	*101*		*11 - 120*	*02/13/12 09:11*	*02/16/12 16:09*	*1*
p-Terphenyl-d14	*111*		*65 - 153*	*02/13/12 09:11*	*02/16/12 16:09*	*1*

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		280	54	ug/Kg	☼	02/13/12 09:41	02/13/12 20:52	1
PCB-1221	ND		280	54	ug/Kg	☼	02/13/12 09:41	02/13/12 20:52	1
PCB-1232	ND		280	54	ug/Kg	☼	02/13/12 09:41	02/13/12 20:52	1
PCB-1242	ND		280	54	ug/Kg	☼	02/13/12 09:41	02/13/12 20:52	1
PCB-1248	ND		280	54	ug/Kg	☼	02/13/12 09:41	02/13/12 20:52	1
PCB-1254	ND		280	130	ug/Kg	☼	02/13/12 09:41	02/13/12 20:52	1
PCB-1260	ND		280	130	ug/Kg	☼	02/13/12 09:41	02/13/12 20:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*110*		*36 - 182*	*02/13/12 09:41*	*02/13/12 20:52*	*1*
DCB Decachlorobiphenyl	*107*		*36 - 182*	*02/13/12 09:41*	*02/13/12 20:52*	*1*
Tetrachloro-m-xylene	*103*		*24 - 172*	*02/13/12 09:41*	*02/13/12 20:52*	*1*
Tetrachloro-m-xylene	*112*		*24 - 172*	*02/13/12 09:41*	*02/13/12 20:52*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**9.0**		2.3		mg/Kg	☼	02/13/12 10:00	02/13/12 19:54	1
Barium	**127**		0.58		mg/Kg	☼	02/13/12 10:00	02/13/12 19:54	1
Cadmium	**0.94**		0.23		mg/Kg	☼	02/13/12 10:00	02/13/12 19:54	1
Chromium	**21.5**		0.58		mg/Kg	☼	02/13/12 10:00	02/13/12 19:54	1
Lead	**156**		1.2		mg/Kg	☼	02/13/12 10:00	02/13/12 19:54	1
Selenium	ND		4.7		mg/Kg	☼	02/13/12 10:00	02/13/12 19:54	1
Silver	**1.5**		0.58		mg/Kg	☼	02/13/12 10:00	02/13/12 19:54	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.53**		0.024		mg/Kg	☼	02/14/12 11:40	02/14/12 13:48	1

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16017-1

Client Sample ID: TP-17 (0-2)
Date Collected: 02/07/12 14:35
Date Received: 02/09/12 13:40

Lab Sample ID: 480-16017-7
Matrix: Solid
Percent Solids: 86.6

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.7	0.42	ug/Kg	☼		02/14/12 04:23	1
1,1,2,2-Tetrachloroethane	ND		5.7	0.93	ug/Kg	☼		02/14/12 04:23	1
1,1,2-Trichloroethane	ND		5.7	0.74	ug/Kg	☼		02/14/12 04:23	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.7	1.3	ug/Kg	☼		02/14/12 04:23	1
1,1-Dichloroethane	ND		5.7	0.70	ug/Kg	☼		02/14/12 04:23	1
1,1-Dichloroethene	ND		5.7	0.70	ug/Kg	☼		02/14/12 04:23	1
1,2,4-Trichlorobenzene	ND		5.7	0.35	ug/Kg	☼		02/14/12 04:23	1
1,2-Dibromo-3-Chloropropane	ND		5.7	2.9	ug/Kg	☼		02/14/12 04:23	1
1,2-Dibromoethane	ND		5.7	0.74	ug/Kg	☼		02/14/12 04:23	1
1,2-Dichlorobenzene	ND		5.7	0.45	ug/Kg	☼		02/14/12 04:23	1
1,2-Dichloroethane	ND		5.7	0.29	ug/Kg	☼		02/14/12 04:23	1
1,2-Dichloropropane	ND		5.7	2.9	ug/Kg	☼		02/14/12 04:23	1
1,3-Dichlorobenzene	ND		5.7	0.29	ug/Kg	☼		02/14/12 04:23	1
1,4-Dichlorobenzene	ND		5.7	0.80	ug/Kg	☼		02/14/12 04:23	1
2-Hexanone	ND		29	2.9	ug/Kg	☼		02/14/12 04:23	1
2-Butanone (MEK)	ND		29	2.1	ug/Kg	☼		02/14/12 04:23	1
4-Methyl-2-pentanone (MIBK)	ND		29	1.9	ug/Kg	☼		02/14/12 04:23	1
Acetone	ND		29	4.8	ug/Kg	☼		02/14/12 04:23	1
Benzene	ND		5.7	0.28	ug/Kg	☼		02/14/12 04:23	1
Bromodichloromethane	ND		5.7	0.77	ug/Kg	☼		02/14/12 04:23	1
Bromoform	ND		5.7	2.9	ug/Kg	☼		02/14/12 04:23	1
Bromomethane	ND		5.7	0.52	ug/Kg	☼		02/14/12 04:23	1
Carbon disulfide	ND		5.7	2.9	ug/Kg	☼		02/14/12 04:23	1
Carbon tetrachloride	ND		5.7	0.55	ug/Kg	☼		02/14/12 04:23	1
Chlorobenzene	ND		5.7	0.76	ug/Kg	☼		02/14/12 04:23	1
Dibromochloromethane	ND		5.7	0.73	ug/Kg	☼		02/14/12 04:23	1
Chloroethane	ND		5.7	1.3	ug/Kg	☼		02/14/12 04:23	1
Chloroform	ND		5.7	0.35	ug/Kg	☼		02/14/12 04:23	1
Chloromethane	ND		5.7	0.35	ug/Kg	☼		02/14/12 04:23	1
cis-1,2-Dichloroethene	ND		5.7	0.73	ug/Kg	☼		02/14/12 04:23	1
cis-1,3-Dichloropropene	ND		5.7	0.82	ug/Kg	☼		02/14/12 04:23	1
Cyclohexane	ND		5.7	0.80	ug/Kg	☼		02/14/12 04:23	1
Dichlorodifluoromethane	ND		5.7	0.47	ug/Kg	☼		02/14/12 04:23	1
Ethylbenzene	ND		5.7	0.40	ug/Kg	☼		02/14/12 04:23	1
Isopropylbenzene	ND		5.7	0.86	ug/Kg	☼		02/14/12 04:23	1
Methyl acetate	ND		5.7	1.1	ug/Kg	☼		02/14/12 04:23	1
Methyl tert-butyl ether	ND		5.7	0.56	ug/Kg	☼		02/14/12 04:23	1
Methylcyclohexane	ND		5.7	0.87	ug/Kg	☼		02/14/12 04:23	1
Methylene Chloride	**4.0**	**J**	5.7	2.6	ug/Kg	☼		02/14/12 04:23	1
Styrene	ND		5.7	0.29	ug/Kg	☼		02/14/12 04:23	1
Tetrachloroethene	ND		5.7	0.77	ug/Kg	☼		02/14/12 04:23	1
Toluene	ND		5.7	0.43	ug/Kg	☼		02/14/12 04:23	1
trans-1,2-Dichloroethene	ND		5.7	0.59	ug/Kg	☼		02/14/12 04:23	1
trans-1,3-Dichloropropene	ND		5.7	2.5	ug/Kg	☼		02/14/12 04:23	1
Trichloroethene	ND		5.7	1.3	ug/Kg	☼		02/14/12 04:23	1
Trichlorofluoromethane	ND		5.7	0.54	ug/Kg	☼		02/14/12 04:23	1
Vinyl chloride	ND		5.7	0.70	ug/Kg	☼		02/14/12 04:23	1
Xylenes, Total	ND		11	0.96	ug/Kg	☼		02/14/12 04:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*64 - 126*		*02/14/12 04:23*	*1*

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16017-1

Client Sample ID: TP-17 (0-2)
Date Collected: 02/07/12 14:35
Date Received: 02/09/12 13:40

Lab Sample ID: 480-16017-7
Matrix: Solid
Percent Solids: 86.6

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*109*		*71 - 125*		*02/14/12 04:23*	*1*
4-Bromofluorobenzene (Surr)	*106*		*72 - 126*		*02/14/12 04:23*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	ND		2000	300	ug/Kg	☼	02/13/12 09:11	02/16/12 16:32	10
2,6-Dinitrotoluene	ND		2000	470	ug/Kg	☼	02/13/12 09:11	02/16/12 16:32	10
2-Chloronaphthalene	ND		2000	130	ug/Kg	☼	02/13/12 09:11	02/16/12 16:32	10
2-Methylnaphthalene	ND		2000	23	ug/Kg	☼	02/13/12 09:11	02/16/12 16:32	10
2-Nitroaniline	ND		3800	620	ug/Kg	☼	02/13/12 09:11	02/16/12 16:32	10
3,3'-Dichlorobenzidine	ND		2000	1700	ug/Kg	☼	02/13/12 09:11	02/16/12 16:32	10
3-Nitroaniline	ND		3800	450	ug/Kg	☼	02/13/12 09:11	02/16/12 16:32	10
4-Bromophenyl phenyl ether	ND		2000	620	ug/Kg	☼	02/13/12 09:11	02/16/12 16:32	10
4-Chloroaniline	ND		2000	570	ug/Kg	☼	02/13/12 09:11	02/16/12 16:32	10
4-Chlorophenyl phenyl ether	ND		2000	41	ug/Kg	☼	02/13/12 09:11	02/16/12 16:32	10
4-Nitroaniline	ND		3800	220	ug/Kg	☼	02/13/12 09:11	02/16/12 16:32	10
Acenaphthene	ND		2000	23	ug/Kg	☼	02/13/12 09:11	02/16/12 16:32	10
Acenaphthylene	ND		2000	16	ug/Kg	☼	02/13/12 09:11	02/16/12 16:32	10
Acetophenone	ND		2000	100	ug/Kg	☼	02/13/12 09:11	02/16/12 16:32	10
Anthracene	ND		2000	50	ug/Kg	☼	02/13/12 09:11	02/16/12 16:32	10
Atrazine	ND	*	2000	86	ug/Kg	☼	02/13/12 09:11	02/16/12 16:32	10
Benzaldehyde	ND		2000	210	ug/Kg	☼	02/13/12 09:11	02/16/12 16:32	10
Benzo(a)anthracene	**130**	**J**	2000	33	ug/Kg	☼	02/13/12 09:11	02/16/12 16:32	10
Benzo(a)pyrene	ND		2000	47	ug/Kg	☼	02/13/12 09:11	02/16/12 16:32	10
Benzo(b)fluoranthene	**140**	**J**	2000	38	ug/Kg	☼	02/13/12 09:11	02/16/12 16:32	10
Benzo(g,h,i)perylene	ND		2000	23	ug/Kg	☼	02/13/12 09:11	02/16/12 16:32	10
Benzo(k)fluoranthene	**97**	**J**	2000	21	ug/Kg	☼	02/13/12 09:11	02/16/12 16:32	10
Biphenyl	ND		2000	120	ug/Kg	☼	02/13/12 09:11	02/16/12 16:32	10
bis (2-chloroisopropyl) ether	ND		2000	200	ug/Kg	☼	02/13/12 09:11	02/16/12 16:32	10
Bis(2-chloroethoxy)methane	ND		2000	110	ug/Kg	☼	02/13/12 09:11	02/16/12 16:32	10
Bis(2-chloroethyl)ether	ND		2000	170	ug/Kg	☼	02/13/12 09:11	02/16/12 16:32	10
Bis(2-ethylhexyl) phthalate	ND		2000	620	ug/Kg	☼	02/13/12 09:11	02/16/12 16:32	10
Butyl benzyl phthalate	ND		2000	520	ug/Kg	☼	02/13/12 09:11	02/16/12 16:32	10
Caprolactam	ND		2000	840	ug/Kg	☼	02/13/12 09:11	02/16/12 16:32	10
Carbazole	ND		2000	22	ug/Kg	☼	02/13/12 09:11	02/16/12 16:32	10
Chrysene	**68**	**J**	2000	19	ug/Kg	☼	02/13/12 09:11	02/16/12 16:32	10
Dibenz(a,h)anthracene	ND		2000	23	ug/Kg	☼	02/13/12 09:11	02/16/12 16:32	10
Dibenzofuran	ND		2000	20	ug/Kg	☼	02/13/12 09:11	02/16/12 16:32	10
Diethyl phthalate	ND		2000	59	ug/Kg	☼	02/13/12 09:11	02/16/12 16:32	10
Dimethyl phthalate	ND		2000	51	ug/Kg	☼	02/13/12 09:11	02/16/12 16:32	10
Di-n-butyl phthalate	ND		2000	670	ug/Kg	☼	02/13/12 09:11	02/16/12 16:32	10
Di-n-octyl phthalate	ND		2000	45	ug/Kg	☼	02/13/12 09:11	02/16/12 16:32	10
Fluoranthene	**160**	**J**	2000	28	ug/Kg	☼	02/13/12 09:11	02/16/12 16:32	10
Fluorene	ND		2000	45	ug/Kg	☼	02/13/12 09:11	02/16/12 16:32	10
Hexachlorobenzene	ND		2000	96	ug/Kg	☼	02/13/12 09:11	02/16/12 16:32	10
Hexachlorobutadiene	ND		2000	99	ug/Kg	☼	02/13/12 09:11	02/16/12 16:32	10
Hexachlorocyclopentadiene	ND		2000	590	ug/Kg	☼	02/13/12 09:11	02/16/12 16:32	10
Hexachloroethane	ND		2000	150	ug/Kg	☼	02/13/12 09:11	02/16/12 16:32	10
Indeno(1,2,3-cd)pyrene	ND		2000	54	ug/Kg	☼	02/13/12 09:11	02/16/12 16:32	10
Isophorone	ND		2000	97	ug/Kg	☼	02/13/12 09:11	02/16/12 16:32	10
Naphthalene	ND		2000	32	ug/Kg	☼	02/13/12 09:11	02/16/12 16:32	10

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16017-1

Client Sample ID: TP-17 (0-2)
Date Collected: 02/07/12 14:35
Date Received: 02/09/12 13:40

Lab Sample ID: 480-16017-7
Matrix: Solid
Percent Solids: 86.6

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	ND		2000	86	ug/Kg	☼	02/13/12 09:11	02/16/12 16:32	10
N-Nitrosodi-n-propylamine	ND		2000	150	ug/Kg	☼	02/13/12 09:11	02/16/12 16:32	10
N-Nitrosodiphenylamine	ND		2000	110	ug/Kg	☼	02/13/12 09:11	02/16/12 16:32	10
Phenanthrene	**120**	**J**	2000	41	ug/Kg	☼	02/13/12 09:11	02/16/12 16:32	10
Pyrene	ND		2000	13	ug/Kg	☼	02/13/12 09:11	02/16/12 16:32	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*101*		*39 - 146*	*02/13/12 09:11*	*02/16/12 16:32*	*10*
2-Fluorobiphenyl	*107*		*37 - 120*	*02/13/12 09:11*	*02/16/12 16:32*	*10*
2-Fluorophenol	*91*		*18 - 120*	*02/13/12 09:11*	*02/16/12 16:32*	*10*
Nitrobenzene-d5	*99*		*34 - 132*	*02/13/12 09:11*	*02/16/12 16:32*	*10*
Phenol-d5	*97*		*11 - 120*	*02/13/12 09:11*	*02/16/12 16:32*	*10*
p-Terphenyl-d14	*115*		*65 - 153*	*02/13/12 09:11*	*02/16/12 16:32*	*10*

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		270	53	ug/Kg	☼	02/13/12 09:41	02/13/12 21:06	1
PCB-1221	ND		270	53	ug/Kg	☼	02/13/12 09:41	02/13/12 21:06	1
PCB-1232	ND		270	53	ug/Kg	☼	02/13/12 09:41	02/13/12 21:06	1
PCB-1242	ND		270	53	ug/Kg	☼	02/13/12 09:41	02/13/12 21:06	1
PCB-1248	ND		270	53	ug/Kg	☼	02/13/12 09:41	02/13/12 21:06	1
PCB-1254	ND		270	130	ug/Kg	☼	02/13/12 09:41	02/13/12 21:06	1
PCB-1260	ND		270	130	ug/Kg	☼	02/13/12 09:41	02/13/12 21:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*114*		*36 - 182*	*02/13/12 09:41*	*02/13/12 21:06*	*1*
DCB Decachlorobiphenyl	*109*		*36 - 182*	*02/13/12 09:41*	*02/13/12 21:06*	*1*
Tetrachloro-m-xylene	*104*		*24 - 172*	*02/13/12 09:41*	*02/13/12 21:06*	*1*
Tetrachloro-m-xylene	*114*		*24 - 172*	*02/13/12 09:41*	*02/13/12 21:06*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**9.7**		2.2		mg/Kg	☼	02/13/12 10:00	02/13/12 19:56	1
Barium	**86.0**		0.55		mg/Kg	☼	02/13/12 10:00	02/13/12 19:56	1
Cadmium	**0.39**		0.22		mg/Kg	☼	02/13/12 10:00	02/13/12 19:56	1
Chromium	**19.2**		0.55		mg/Kg	☼	02/13/12 10:00	02/13/12 19:56	1
Lead	**76.4**		1.1		mg/Kg	☼	02/13/12 10:00	02/13/12 19:56	1
Selenium	ND		4.4		mg/Kg	☼	02/13/12 10:00	02/13/12 19:56	1
Silver	ND		0.55		mg/Kg	☼	02/13/12 10:00	02/13/12 19:56	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.070**		0.022		mg/Kg	☼	02/14/12 11:40	02/14/12 13:50	1

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16017-1

Client Sample ID: TP-9 (0-2)
Date Collected: 02/08/12 12:45
Date Received: 02/09/12 13:40

Lab Sample ID: 480-16017-8
Matrix: Solid
Percent Solids: 66.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		7.2	0.52	ug/Kg	☼		02/14/12 04:49	1
1,1,2,2-Tetrachloroethane	ND		7.2	1.2	ug/Kg	☼		02/14/12 04:49	1
1,1,2-Trichloroethane	ND		7.2	0.94	ug/Kg	☼		02/14/12 04:49	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		7.2	1.6	ug/Kg	☼		02/14/12 04:49	1
1,1-Dichloroethane	ND		7.2	0.88	ug/Kg	☼		02/14/12 04:49	1
1,1-Dichloroethene	ND		7.2	0.89	ug/Kg	☼		02/14/12 04:49	1
1,2,4-Trichlorobenzene	ND		7.2	0.44	ug/Kg	☼		02/14/12 04:49	1
1,2-Dibromo-3-Chloropropane	ND		7.2	3.6	ug/Kg	☼		02/14/12 04:49	1
1,2-Dibromoethane	ND		7.2	0.93	ug/Kg	☼		02/14/12 04:49	1
1,2-Dichlorobenzene	ND		7.2	0.57	ug/Kg	☼		02/14/12 04:49	1
1,2-Dichloroethane	ND		7.2	0.36	ug/Kg	☼		02/14/12 04:49	1
1,2-Dichloropropane	ND		7.2	3.6	ug/Kg	☼		02/14/12 04:49	1
1,3-Dichlorobenzene	ND		7.2	0.37	ug/Kg	☼		02/14/12 04:49	1
1,4-Dichlorobenzene	ND		7.2	1.0	ug/Kg	☼		02/14/12 04:49	1
2-Hexanone	ND		36	3.6	ug/Kg	☼		02/14/12 04:49	1
2-Butanone (MEK)	ND		36	2.6	ug/Kg	☼		02/14/12 04:49	1
4-Methyl-2-pentanone (MIBK)	ND		36	2.4	ug/Kg	☼		02/14/12 04:49	1
Acetone	ND		36	6.1	ug/Kg	☼		02/14/12 04:49	1
Benzene	ND		7.2	0.35	ug/Kg	☼		02/14/12 04:49	1
Bromodichloromethane	ND		7.2	0.97	ug/Kg	☼		02/14/12 04:49	1
Bromoform	ND		7.2	3.6	ug/Kg	☼		02/14/12 04:49	1
Bromomethane	ND		7.2	0.65	ug/Kg	☼		02/14/12 04:49	1
Carbon disulfide	ND		7.2	3.6	ug/Kg	☼		02/14/12 04:49	1
Carbon tetrachloride	ND		7.2	0.70	ug/Kg	☼		02/14/12 04:49	1
Chlorobenzene	ND		7.2	0.95	ug/Kg	☼		02/14/12 04:49	1
Dibromochloromethane	ND		7.2	0.93	ug/Kg	☼		02/14/12 04:49	1
Chloroethane	ND		7.2	1.6	ug/Kg	☼		02/14/12 04:49	1
Chloroform	ND		7.2	0.45	ug/Kg	☼		02/14/12 04:49	1
Chloromethane	ND		7.2	0.44	ug/Kg	☼		02/14/12 04:49	1
cis-1,2-Dichloroethene	ND		7.2	0.93	ug/Kg	☼		02/14/12 04:49	1
cis-1,3-Dichloropropene	ND		7.2	1.0	ug/Kg	☼		02/14/12 04:49	1
Cyclohexane	ND		7.2	1.0	ug/Kg	☼		02/14/12 04:49	1
Dichlorodifluoromethane	ND		7.2	0.60	ug/Kg	☼		02/14/12 04:49	1
Ethylbenzene	ND		7.2	0.50	ug/Kg	☼		02/14/12 04:49	1
Isopropylbenzene	ND		7.2	1.1	ug/Kg	☼		02/14/12 04:49	1
Methyl acetate	ND		7.2	1.3	ug/Kg	☼		02/14/12 04:49	1
Methyl tert-butyl ether	ND		7.2	0.71	ug/Kg	☼		02/14/12 04:49	1
Methylcyclohexane	ND		7.2	1.1	ug/Kg	☼		02/14/12 04:49	1
Methylene Chloride	**4.9**	**J**	7.2	3.3	ug/Kg	☼		02/14/12 04:49	1
Styrene	ND		7.2	0.36	ug/Kg	☼		02/14/12 04:49	1
Tetrachloroethene	ND		7.2	0.97	ug/Kg	☼		02/14/12 04:49	1
Toluene	ND		7.2	0.55	ug/Kg	☼		02/14/12 04:49	1
trans-1,2-Dichloroethene	ND		7.2	0.75	ug/Kg	☼		02/14/12 04:49	1
trans-1,3-Dichloropropene	ND		7.2	3.2	ug/Kg	☼		02/14/12 04:49	1
Trichloroethene	ND		7.2	1.6	ug/Kg	☼		02/14/12 04:49	1
Trichlorofluoromethane	ND		7.2	0.68	ug/Kg	☼		02/14/12 04:49	1
Vinyl chloride	ND		7.2	0.88	ug/Kg	☼		02/14/12 04:49	1
Xylenes, Total	ND		14	1.2	ug/Kg	☼		02/14/12 04:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*64 - 126*		*02/14/12 04:49*	*1*

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16017-1

Client Sample ID: TP-9 (0-2)
Date Collected: 02/08/12 12:45
Date Received: 02/09/12 13:40

Lab Sample ID: 480-16017-8
Matrix: Solid
Percent Solids: 66.5

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*110*		*71 - 125*		*02/14/12 04:49*	*1*
4-Bromofluorobenzene (Surr)	*107*		*72 - 126*		*02/14/12 04:49*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	ND		250	39	ug/Kg	☼	02/13/12 09:11	02/16/12 16:55	1
2,6-Dinitrotoluene	ND		250	62	ug/Kg	☼	02/13/12 09:11	02/16/12 16:55	1
2-Chloronaphthalene	ND		250	17	ug/Kg	☼	02/13/12 09:11	02/16/12 16:55	1
2-Methylnaphthalene	**35**	**J**	250	3.1	ug/Kg	☼	02/13/12 09:11	02/16/12 16:55	1
2-Nitroaniline	ND		490	81	ug/Kg	☼	02/13/12 09:11	02/16/12 16:55	1
3,3'-Dichlorobenzidine	ND		250	220	ug/Kg	☼	02/13/12 09:11	02/16/12 16:55	1
3-Nitroaniline	ND		490	58	ug/Kg	☼	02/13/12 09:11	02/16/12 16:55	1
4-Bromophenyl phenyl ether	ND		250	80	ug/Kg	☼	02/13/12 09:11	02/16/12 16:55	1
4-Chloroaniline	ND		250	74	ug/Kg	☼	02/13/12 09:11	02/16/12 16:55	1
4-Chlorophenyl phenyl ether	ND		250	5.4	ug/Kg	☼	02/13/12 09:11	02/16/12 16:55	1
4-Nitroaniline	ND		490	28	ug/Kg	☼	02/13/12 09:11	02/16/12 16:55	1
Acenaphthene	**15**	**J**	250	3.0	ug/Kg	☼	02/13/12 09:11	02/16/12 16:55	1
Acenaphthylene	**100**	**J**	250	2.1	ug/Kg	☼	02/13/12 09:11	02/16/12 16:55	1
Acetophenone	ND		250	13	ug/Kg	☼	02/13/12 09:11	02/16/12 16:55	1
Anthracene	**91**	**J**	250	6.5	ug/Kg	☼	02/13/12 09:11	02/16/12 16:55	1
Atrazine	ND	*	250	11	ug/Kg	☼	02/13/12 09:11	02/16/12 16:55	1
Benzaldehyde	ND		250	28	ug/Kg	☼	02/13/12 09:11	02/16/12 16:55	1
Benzo(a)anthracene	**350**		250	4.4	ug/Kg	☼	02/13/12 09:11	02/16/12 16:55	1
Benzo(a)pyrene	**520**		250	6.1	ug/Kg	☼	02/13/12 09:11	02/16/12 16:55	1
Benzo(b)fluoranthene	**910**		250	4.9	ug/Kg	☼	02/13/12 09:11	02/16/12 16:55	1
Benzo(g,h,i)perylene	**220**	**J**	250	3.0	ug/Kg	☼	02/13/12 09:11	02/16/12 16:55	1
Benzo(k)fluoranthene	**440**		250	2.8	ug/Kg	☼	02/13/12 09:11	02/16/12 16:55	1
Biphenyl	ND		250	16	ug/Kg	☼	02/13/12 09:11	02/16/12 16:55	1
bis (2-chloroisopropyl) ether	ND		250	26	ug/Kg	☼	02/13/12 09:11	02/16/12 16:55	1
Bis(2-chloroethoxy)methane	ND		250	14	ug/Kg	☼	02/13/12 09:11	02/16/12 16:55	1
Bis(2-chloroethyl)ether	ND		250	22	ug/Kg	☼	02/13/12 09:11	02/16/12 16:55	1
Bis(2-ethylhexyl) phthalate	ND		250	81	ug/Kg	☼	02/13/12 09:11	02/16/12 16:55	1
Butyl benzyl phthalate	ND		250	68	ug/Kg	☼	02/13/12 09:11	02/16/12 16:55	1
Caprolactam	ND		250	110	ug/Kg	☼	02/13/12 09:11	02/16/12 16:55	1
Carbazole	**75**	**J**	250	2.9	ug/Kg	☼	02/13/12 09:11	02/16/12 16:55	1
Chrysene	**460**		250	2.5	ug/Kg	☼	02/13/12 09:11	02/16/12 16:55	1
Dibenz(a,h)anthracene	**73**	**J**	250	3.0	ug/Kg	☼	02/13/12 09:11	02/16/12 16:55	1
Dibenzofuran	**18**	**J**	250	2.6	ug/Kg	☼	02/13/12 09:11	02/16/12 16:55	1
Diethyl phthalate	ND		250	7.6	ug/Kg	☼	02/13/12 09:11	02/16/12 16:55	1
Dimethyl phthalate	ND		250	6.6	ug/Kg	☼	02/13/12 09:11	02/16/12 16:55	1
Di-n-butyl phthalate	ND		250	87	ug/Kg	☼	02/13/12 09:11	02/16/12 16:55	1
Di-n-octyl phthalate	ND		250	5.9	ug/Kg	☼	02/13/12 09:11	02/16/12 16:55	1
Fluoranthene	**730**		250	3.7	ug/Kg	☼	02/13/12 09:11	02/16/12 16:55	1
Fluorene	**27**	**J**	250	5.8	ug/Kg	☼	02/13/12 09:11	02/16/12 16:55	1
Hexachlorobenzene	ND		250	13	ug/Kg	☼	02/13/12 09:11	02/16/12 16:55	1
Hexachlorobutadiene	ND		250	13	ug/Kg	☼	02/13/12 09:11	02/16/12 16:55	1
Hexachlorocyclopentadiene	ND		250	76	ug/Kg	☼	02/13/12 09:11	02/16/12 16:55	1
Hexachloroethane	ND		250	20	ug/Kg	☼	02/13/12 09:11	02/16/12 16:55	1
Indeno(1,2,3-cd)pyrene	**200**	**J**	250	7.0	ug/Kg	☼	02/13/12 09:11	02/16/12 16:55	1
Isophorone	ND		250	13	ug/Kg	☼	02/13/12 09:11	02/16/12 16:55	1
Naphthalene	**29**	**J**	250	4.2	ug/Kg	☼	02/13/12 09:11	02/16/12 16:55	1

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16017-1

Client Sample ID: TP-9 (0-2)
Date Collected: 02/08/12 12:45
Date Received: 02/09/12 13:40

Lab Sample ID: 480-16017-8
Matrix: Solid
Percent Solids: 66.5

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	ND		250	11	ug/Kg	☼	02/13/12 09:11	02/16/12 16:55	1
N-Nitrosodi-n-propylamine	ND		250	20	ug/Kg	☼	02/13/12 09:11	02/16/12 16:55	1
N-Nitrosodiphenylamine	ND		250	14	ug/Kg	☼	02/13/12 09:11	02/16/12 16:55	1
Phenanthrene	**410**		250	5.3	ug/Kg	☼	02/13/12 09:11	02/16/12 16:55	1
Pyrene	**510**		250	1.6	ug/Kg	☼	02/13/12 09:11	02/16/12 16:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*106*		*39 - 146*	*02/13/12 09:11*	*02/16/12 16:55*	*1*
2-Fluorobiphenyl	*99*		*37 - 120*	*02/13/12 09:11*	*02/16/12 16:55*	*1*
2-Fluorophenol	*78*		*18 - 120*	*02/13/12 09:11*	*02/16/12 16:55*	*1*
Nitrobenzene-d5	*93*		*34 - 132*	*02/13/12 09:11*	*02/16/12 16:55*	*1*
Phenol-d5	*88*		*11 - 120*	*02/13/12 09:11*	*02/16/12 16:55*	*1*
p-Terphenyl-d14	*100*		*65 - 153*	*02/13/12 09:11*	*02/16/12 16:55*	*1*

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		370	73	ug/Kg	☼	02/13/12 09:41	02/13/12 21:21	1
PCB-1221	ND		370	73	ug/Kg	☼	02/13/12 09:41	02/13/12 21:21	1
PCB-1232	ND		370	73	ug/Kg	☼	02/13/12 09:41	02/13/12 21:21	1
PCB-1242	ND		370	73	ug/Kg	☼	02/13/12 09:41	02/13/12 21:21	1
PCB-1248	ND		370	73	ug/Kg	☼	02/13/12 09:41	02/13/12 21:21	1
PCB-1254	ND		370	170	ug/Kg	☼	02/13/12 09:41	02/13/12 21:21	1
PCB-1260	ND		370	170	ug/Kg	☼	02/13/12 09:41	02/13/12 21:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*112*		*36 - 182*	*02/13/12 09:41*	*02/13/12 21:21*	*1*
DCB Decachlorobiphenyl	*109*		*36 - 182*	*02/13/12 09:41*	*02/13/12 21:21*	*1*
Tetrachloro-m-xylene	*105*		*24 - 172*	*02/13/12 09:41*	*02/13/12 21:21*	*1*
Tetrachloro-m-xylene	*114*		*24 - 172*	*02/13/12 09:41*	*02/13/12 21:21*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**16.4**		2.9		mg/Kg	☼	02/13/12 10:00	02/13/12 19:58	1
Barium	**272**		0.71		mg/Kg	☼	02/13/12 10:00	02/13/12 19:58	1
Cadmium	**1.4**		0.29		mg/Kg	☼	02/13/12 10:00	02/13/12 19:58	1
Chromium	**13.9**		0.71		mg/Kg	☼	02/13/12 10:00	02/13/12 19:58	1
Lead	**450**		1.4		mg/Kg	☼	02/13/12 10:00	02/13/12 19:58	1
Selenium	ND		5.7		mg/Kg	☼	02/13/12 10:00	02/13/12 19:58	1
Silver	ND		0.71		mg/Kg	☼	02/13/12 10:00	02/13/12 19:58	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.061**		0.032		mg/Kg	☼	02/14/12 11:40	02/14/12 13:52	1

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16017-1

Client Sample ID: TP-20 (0-2)
Date Collected: 02/08/12 11:15
Date Received: 02/09/12 13:40

Lab Sample ID: 480-16017-9
Matrix: Solid
Percent Solids: 87.9

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.6	0.40	ug/Kg	☼		02/14/12 05:14	1
1,1,2,2-Tetrachloroethane	ND		5.6	0.90	ug/Kg	☼		02/14/12 05:14	1
1,1,2-Trichloroethane	ND		5.6	0.72	ug/Kg	☼		02/14/12 05:14	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.6	1.3	ug/Kg	☼		02/14/12 05:14	1
1,1-Dichloroethane	ND		5.6	0.68	ug/Kg	☼		02/14/12 05:14	1
1,1-Dichloroethene	ND		5.6	0.68	ug/Kg	☼		02/14/12 05:14	1
1,2,4-Trichlorobenzene	ND		5.6	0.34	ug/Kg	☼		02/14/12 05:14	1
1,2-Dibromo-3-Chloropropane	ND		5.6	2.8	ug/Kg	☼		02/14/12 05:14	1
1,2-Dibromoethane	ND		5.6	0.71	ug/Kg	☼		02/14/12 05:14	1
1,2-Dichlorobenzene	ND		5.6	0.43	ug/Kg	☼		02/14/12 05:14	1
1,2-Dichloroethane	ND		5.6	0.28	ug/Kg	☼		02/14/12 05:14	1
1,2-Dichloropropane	ND		5.6	2.8	ug/Kg	☼		02/14/12 05:14	1
1,3-Dichlorobenzene	ND		5.6	0.29	ug/Kg	☼		02/14/12 05:14	1
1,4-Dichlorobenzene	ND		5.6	0.78	ug/Kg	☼		02/14/12 05:14	1
2-Hexanone	ND		28	2.8	ug/Kg	☼		02/14/12 05:14	1
2-Butanone (MEK)	ND		28	2.0	ug/Kg	☼		02/14/12 05:14	1
4-Methyl-2-pentanone (MIBK)	ND		28	1.8	ug/Kg	☼		02/14/12 05:14	1
Acetone	ND		28	4.7	ug/Kg	☼		02/14/12 05:14	1
Benzene	ND		5.6	0.27	ug/Kg	☼		02/14/12 05:14	1
Bromodichloromethane	ND		5.6	0.74	ug/Kg	☼		02/14/12 05:14	1
Bromoform	ND		5.6	2.8	ug/Kg	☼		02/14/12 05:14	1
Bromomethane	ND		5.6	0.50	ug/Kg	☼		02/14/12 05:14	1
Carbon disulfide	ND		5.6	2.8	ug/Kg	☼		02/14/12 05:14	1
Carbon tetrachloride	ND		5.6	0.54	ug/Kg	☼		02/14/12 05:14	1
Chlorobenzene	ND		5.6	0.73	ug/Kg	☼		02/14/12 05:14	1
Dibromochloromethane	ND		5.6	0.71	ug/Kg	☼		02/14/12 05:14	1
Chloroethane	ND		5.6	1.3	ug/Kg	☼		02/14/12 05:14	1
Chloroform	ND		5.6	0.34	ug/Kg	☼		02/14/12 05:14	1
Chloromethane	ND		5.6	0.34	ug/Kg	☼		02/14/12 05:14	1
cis-1,2-Dichloroethene	ND		5.6	0.71	ug/Kg	☼		02/14/12 05:14	1
cis-1,3-Dichloropropene	ND		5.6	0.80	ug/Kg	☼		02/14/12 05:14	1
Cyclohexane	ND		5.6	0.78	ug/Kg	☼		02/14/12 05:14	1
Dichlorodifluoromethane	ND		5.6	0.46	ug/Kg	☼		02/14/12 05:14	1
Ethylbenzene	ND		5.6	0.38	ug/Kg	☼		02/14/12 05:14	1
Isopropylbenzene	ND		5.6	0.84	ug/Kg	☼		02/14/12 05:14	1
Methyl acetate	ND		5.6	1.0	ug/Kg	☼		02/14/12 05:14	1
Methyl tert-butyl ether	ND		5.6	0.55	ug/Kg	☼		02/14/12 05:14	1
Methylcyclohexane	ND		5.6	0.84	ug/Kg	☼		02/14/12 05:14	1
Methylene Chloride	**4.0**	**J**	5.6	2.6	ug/Kg	☼		02/14/12 05:14	1
Styrene	ND		5.6	0.28	ug/Kg	☼		02/14/12 05:14	1
Tetrachloroethene	ND		5.6	0.75	ug/Kg	☼		02/14/12 05:14	1
Toluene	ND		5.6	0.42	ug/Kg	☼		02/14/12 05:14	1
trans-1,2-Dichloroethene	ND		5.6	0.57	ug/Kg	☼		02/14/12 05:14	1
trans-1,3-Dichloropropene	ND		5.6	2.4	ug/Kg	☼		02/14/12 05:14	1
Trichloroethene	ND		5.6	1.2	ug/Kg	☼		02/14/12 05:14	1
Trichlorofluoromethane	ND		5.6	0.53	ug/Kg	☼		02/14/12 05:14	1
Vinyl chloride	ND		5.6	0.68	ug/Kg	☼		02/14/12 05:14	1
Xylenes, Total	ND		11	0.93	ug/Kg	☼		02/14/12 05:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*64 - 126*		*02/14/12 05:14*	*1*

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16017-1

Client Sample ID: TP-20 (0-2)
Date Collected: 02/08/12 11:15
Date Received: 02/09/12 13:40

Lab Sample ID: 480-16017-9
Matrix: Solid
Percent Solids: 87.9

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*103*		*71 - 125*		*02/14/12 05:14*	*1*
4-Bromofluorobenzene (Surr)	*102*		*72 - 126*		*02/14/12 05:14*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	ND		190	29	ug/Kg	☼	02/13/12 09:11	02/16/12 17:19	1
2,6-Dinitrotoluene	ND		190	46	ug/Kg	☼	02/13/12 09:11	02/16/12 17:19	1
2-Chloronaphthalene	ND		190	13	ug/Kg	☼	02/13/12 09:11	02/16/12 17:19	1
2-Methylnaphthalene	**46**	**J**	190	2.3	ug/Kg	☼	02/13/12 09:11	02/16/12 17:19	1
2-Nitroaniline	ND		370	60	ug/Kg	☼	02/13/12 09:11	02/16/12 17:19	1
3,3'-Dichlorobenzidine	ND		190	160	ug/Kg	☼	02/13/12 09:11	02/16/12 17:19	1
3-Nitroaniline	ND		370	43	ug/Kg	☼	02/13/12 09:11	02/16/12 17:19	1
4-Bromophenyl phenyl ether	ND		190	60	ug/Kg	☼	02/13/12 09:11	02/16/12 17:19	1
4-Chloroaniline	ND		190	55	ug/Kg	☼	02/13/12 09:11	02/16/12 17:19	1
4-Chlorophenyl phenyl ether	ND		190	4.0	ug/Kg	☼	02/13/12 09:11	02/16/12 17:19	1
4-Nitroaniline	ND		370	21	ug/Kg	☼	02/13/12 09:11	02/16/12 17:19	1
Acenaphthene	**80**	**J**	190	2.2	ug/Kg	☼	02/13/12 09:11	02/16/12 17:19	1
Acenaphthylene	**15**	**J**	190	1.5	ug/Kg	☼	02/13/12 09:11	02/16/12 17:19	1
Acetophenone	ND		190	9.7	ug/Kg	☼	02/13/12 09:11	02/16/12 17:19	1
Anthracene	**190**		190	4.8	ug/Kg	☼	02/13/12 09:11	02/16/12 17:19	1
Atrazine	ND	*	190	8.4	ug/Kg	☼	02/13/12 09:11	02/16/12 17:19	1
Benzaldehyde	ND		190	21	ug/Kg	☼	02/13/12 09:11	02/16/12 17:19	1
Benzo(a)anthracene	**320**		190	3.2	ug/Kg	☼	02/13/12 09:11	02/16/12 17:19	1
Benzo(a)pyrene	**280**		190	4.5	ug/Kg	☼	02/13/12 09:11	02/16/12 17:19	1
Benzo(b)fluoranthene	**570**		190	3.7	ug/Kg	☼	02/13/12 09:11	02/16/12 17:19	1
Benzo(g,h,i)perylene	**110**	**J**	190	2.3	ug/Kg	☼	02/13/12 09:11	02/16/12 17:19	1
Benzo(k)fluoranthene	**260**		190	2.1	ug/Kg	☼	02/13/12 09:11	02/16/12 17:19	1
Biphenyl	**16**	**J**	190	12	ug/Kg	☼	02/13/12 09:11	02/16/12 17:19	1
bis (2-chloroisopropyl) ether	ND		190	20	ug/Kg	☼	02/13/12 09:11	02/16/12 17:19	1
Bis(2-chloroethoxy)methane	ND		190	10	ug/Kg	☼	02/13/12 09:11	02/16/12 17:19	1
Bis(2-chloroethyl)ether	ND		190	16	ug/Kg	☼	02/13/12 09:11	02/16/12 17:19	1
Bis(2-ethylhexyl) phthalate	ND		190	61	ug/Kg	☼	02/13/12 09:11	02/16/12 17:19	1
Butyl benzyl phthalate	ND		190	51	ug/Kg	☼	02/13/12 09:11	02/16/12 17:19	1
Caprolactam	ND		190	81	ug/Kg	☼	02/13/12 09:11	02/16/12 17:19	1
Carbazole	**95**	**J**	190	2.2	ug/Kg	☼	02/13/12 09:11	02/16/12 17:19	1
Chrysene	**320**		190	1.9	ug/Kg	☼	02/13/12 09:11	02/16/12 17:19	1
Dibenz(a,h)anthracene	ND		190	2.2	ug/Kg	☼	02/13/12 09:11	02/16/12 17:19	1
Dibenzofuran	**80**	**J**	190	2.0	ug/Kg	☼	02/13/12 09:11	02/16/12 17:19	1
Diethyl phthalate	ND		190	5.7	ug/Kg	☼	02/13/12 09:11	02/16/12 17:19	1
Dimethyl phthalate	ND		190	4.9	ug/Kg	☼	02/13/12 09:11	02/16/12 17:19	1
Di-n-butyl phthalate	ND		190	65	ug/Kg	☼	02/13/12 09:11	02/16/12 17:19	1
Di-n-octyl phthalate	ND		190	4.4	ug/Kg	☼	02/13/12 09:11	02/16/12 17:19	1
Fluoranthene	**750**		190	2.7	ug/Kg	☼	02/13/12 09:11	02/16/12 17:19	1
Fluorene	**110**	**J**	190	4.3	ug/Kg	☼	02/13/12 09:11	02/16/12 17:19	1
Hexachlorobenzene	ND		190	9.3	ug/Kg	☼	02/13/12 09:11	02/16/12 17:19	1
Hexachlorobutadiene	ND		190	9.6	ug/Kg	☼	02/13/12 09:11	02/16/12 17:19	1
Hexachlorocyclopentadiene	ND		190	57	ug/Kg	☼	02/13/12 09:11	02/16/12 17:19	1
Hexachloroethane	ND		190	15	ug/Kg	☼	02/13/12 09:11	02/16/12 17:19	1
Indeno(1,2,3-cd)pyrene	**110**	**J**	190	5.2	ug/Kg	☼	02/13/12 09:11	02/16/12 17:19	1
Isophorone	ND		190	9.4	ug/Kg	☼	02/13/12 09:11	02/16/12 17:19	1
Naphthalene	**160**	**J**	190	3.1	ug/Kg	☼	02/13/12 09:11	02/16/12 17:19	1

Client Sample ID: TP-20 (0-2)
Date Collected: 02/08/12 11:15
Date Received: 02/09/12 13:40

Lab Sample ID: 480-16017-9
Matrix: Solid
Percent Solids: 87.9

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	ND		190	8.3	ug/Kg	☼	02/13/12 09:11	02/16/12 17:19	1
N-Nitrosodi-n-propylamine	ND		190	15	ug/Kg	☼	02/13/12 09:11	02/16/12 17:19	1
N-Nitrosodiphenylamine	ND		190	10	ug/Kg	☼	02/13/12 09:11	02/16/12 17:19	1
Phenanthrene	**760**		190	3.9	ug/Kg	☼	02/13/12 09:11	02/16/12 17:19	1
Pyrene	**540**		190	1.2	ug/Kg	☼	02/13/12 09:11	02/16/12 17:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*107*		*39 - 146*	*02/13/12 09:11*	*02/16/12 17:19*	*1*
2-Fluorobiphenyl	*93*		*37 - 120*	*02/13/12 09:11*	*02/16/12 17:19*	*1*
2-Fluorophenol	*76*		*18 - 120*	*02/13/12 09:11*	*02/16/12 17:19*	*1*
Nitrobenzene-d5	*87*		*34 - 132*	*02/13/12 09:11*	*02/16/12 17:19*	*1*
Phenol-d5	*86*		*11 - 120*	*02/13/12 09:11*	*02/16/12 17:19*	*1*
p-Terphenyl-d14	*99*		*65 - 153*	*02/13/12 09:11*	*02/16/12 17:19*	*1*

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		230	45	ug/Kg	☼	02/13/12 09:41	02/13/12 22:05	1
PCB-1221	ND		230	45	ug/Kg	☼	02/13/12 09:41	02/13/12 22:05	1
PCB-1232	ND		230	45	ug/Kg	☼	02/13/12 09:41	02/13/12 22:05	1
PCB-1242	ND		230	45	ug/Kg	☼	02/13/12 09:41	02/13/12 22:05	1
PCB-1248	ND		230	45	ug/Kg	☼	02/13/12 09:41	02/13/12 22:05	1
PCB-1254	ND		230	110	ug/Kg	☼	02/13/12 09:41	02/13/12 22:05	1
PCB-1260	ND		230	110	ug/Kg	☼	02/13/12 09:41	02/13/12 22:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*115*		*36 - 182*	*02/13/12 09:41*	*02/13/12 22:05*	*1*
DCB Decachlorobiphenyl	*111*		*36 - 182*	*02/13/12 09:41*	*02/13/12 22:05*	*1*
Tetrachloro-m-xylene	*103*		*24 - 172*	*02/13/12 09:41*	*02/13/12 22:05*	*1*
Tetrachloro-m-xylene	*114*		*24 - 172*	*02/13/12 09:41*	*02/13/12 22:05*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**5.1**		2.4		mg/Kg	☼	02/13/12 10:00	02/13/12 20:01	1
Barium	**38.8**		0.60		mg/Kg	☼	02/13/12 10:00	02/13/12 20:01	1
Cadmium	**0.37**		0.24		mg/Kg	☼	02/13/12 10:00	02/13/12 20:01	1
Chromium	**7.6**		0.60		mg/Kg	☼	02/13/12 10:00	02/13/12 20:01	1
Lead	**25.3**		1.2		mg/Kg	☼	02/13/12 10:00	02/13/12 20:01	1
Selenium	ND		4.8		mg/Kg	☼	02/13/12 10:00	02/13/12 20:01	1
Silver	ND		0.60		mg/Kg	☼	02/13/12 10:00	02/13/12 20:01	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.040**		0.022		mg/Kg	☼	02/14/12 11:40	02/14/12 13:59	1

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16017-1

Client Sample ID: TP-10 (0-2)
Date Collected: 02/08/12 16:30
Date Received: 02/09/12 13:40

Lab Sample ID: 480-16017-10
Matrix: Solid
Percent Solids: 85.3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.7	0.41	ug/Kg	☼		02/14/12 05:39	1
1,1,2,2-Tetrachloroethane	ND		5.7	0.93	ug/Kg	☼		02/14/12 05:39	1
1,1,2-Trichloroethane	ND		5.7	0.74	ug/Kg	☼		02/14/12 05:39	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.7	1.3	ug/Kg	☼		02/14/12 05:39	1
1,1-Dichloroethane	ND		5.7	0.70	ug/Kg	☼		02/14/12 05:39	1
1,1-Dichloroethene	ND		5.7	0.70	ug/Kg	☼		02/14/12 05:39	1
1,2,4-Trichlorobenzene	ND		5.7	0.35	ug/Kg	☼		02/14/12 05:39	1
1,2-Dibromo-3-Chloropropane	ND		5.7	2.9	ug/Kg	☼		02/14/12 05:39	1
1,2-Dibromoethane	ND		5.7	0.73	ug/Kg	☼		02/14/12 05:39	1
1,2-Dichlorobenzene	ND		5.7	0.45	ug/Kg	☼		02/14/12 05:39	1
1,2-Dichloroethane	ND		5.7	0.29	ug/Kg	☼		02/14/12 05:39	1
1,2-Dichloropropane	ND		5.7	2.9	ug/Kg	☼		02/14/12 05:39	1
1,3-Dichlorobenzene	ND		5.7	0.29	ug/Kg	☼		02/14/12 05:39	1
1,4-Dichlorobenzene	ND		5.7	0.80	ug/Kg	☼		02/14/12 05:39	1
2-Hexanone	ND		29	2.9	ug/Kg	☼		02/14/12 05:39	1
2-Butanone (MEK)	ND		29	2.1	ug/Kg	☼		02/14/12 05:39	1
4-Methyl-2-pentanone (MIBK)	ND		29	1.9	ug/Kg	☼		02/14/12 05:39	1
Acetone	ND		29	4.8	ug/Kg	☼		02/14/12 05:39	1
Benzene	ND		5.7	0.28	ug/Kg	☼		02/14/12 05:39	1
Bromodichloromethane	ND		5.7	0.76	ug/Kg	☼		02/14/12 05:39	1
Bromoform	ND		5.7	2.9	ug/Kg	☼		02/14/12 05:39	1
Bromomethane	ND		5.7	0.51	ug/Kg	☼		02/14/12 05:39	1
Carbon disulfide	ND		5.7	2.9	ug/Kg	☼		02/14/12 05:39	1
Carbon tetrachloride	ND		5.7	0.55	ug/Kg	☼		02/14/12 05:39	1
Chlorobenzene	ND		5.7	0.75	ug/Kg	☼		02/14/12 05:39	1
Dibromochloromethane	ND		5.7	0.73	ug/Kg	☼		02/14/12 05:39	1
Chloroethane	ND		5.7	1.3	ug/Kg	☼		02/14/12 05:39	1
Chloroform	ND		5.7	0.35	ug/Kg	☼		02/14/12 05:39	1
Chloromethane	ND		5.7	0.34	ug/Kg	☼		02/14/12 05:39	1
cis-1,2-Dichloroethene	ND		5.7	0.73	ug/Kg	☼		02/14/12 05:39	1
cis-1,3-Dichloropropene	ND		5.7	0.82	ug/Kg	☼		02/14/12 05:39	1
Cyclohexane	ND		5.7	0.80	ug/Kg	☼		02/14/12 05:39	1
Dichlorodifluoromethane	ND		5.7	0.47	ug/Kg	☼		02/14/12 05:39	1
Ethylbenzene	ND		5.7	0.39	ug/Kg	☼		02/14/12 05:39	1
Isopropylbenzene	ND		5.7	0.86	ug/Kg	☼		02/14/12 05:39	1
Methyl acetate	ND		5.7	1.1	ug/Kg	☼		02/14/12 05:39	1
Methyl tert-butyl ether	ND		5.7	0.56	ug/Kg	☼		02/14/12 05:39	1
Methylcyclohexane	ND		5.7	0.87	ug/Kg	☼		02/14/12 05:39	1
Methylene Chloride	**3.0**	**J**	5.7	2.6	ug/Kg	☼		02/14/12 05:39	1
Styrene	ND		5.7	0.29	ug/Kg	☼		02/14/12 05:39	1
Tetrachloroethene	ND		5.7	0.77	ug/Kg	☼		02/14/12 05:39	1
Toluene	ND		5.7	0.43	ug/Kg	☼		02/14/12 05:39	1
trans-1,2-Dichloroethene	ND		5.7	0.59	ug/Kg	☼		02/14/12 05:39	1
trans-1,3-Dichloropropene	ND		5.7	2.5	ug/Kg	☼		02/14/12 05:39	1
Trichloroethene	ND		5.7	1.3	ug/Kg	☼		02/14/12 05:39	1
Trichlorofluoromethane	ND		5.7	0.54	ug/Kg	☼		02/14/12 05:39	1
Vinyl chloride	ND		5.7	0.70	ug/Kg	☼		02/14/12 05:39	1
Xylenes, Total	ND		11	0.96	ug/Kg	☼		02/14/12 05:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*64 - 126*		*02/14/12 05:39*	*1*

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16017-1

Client Sample ID: TP-10 (0-2)
Date Collected: 02/08/12 16:30
Date Received: 02/09/12 13:40

Lab Sample ID: 480-16017-10
Matrix: Solid
Percent Solids: 85.3

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*105*		*71 - 125*		*02/14/12 05:39*	*1*
4-Bromofluorobenzene (Surr)	*103*		*72 - 126*		*02/14/12 05:39*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	ND		200	30	ug/Kg	☼	02/13/12 09:11	02/16/12 17:42	1
2,6-Dinitrotoluene	ND		200	48	ug/Kg	☼	02/13/12 09:11	02/16/12 17:42	1
2-Chloronaphthalene	ND		200	13	ug/Kg	☼	02/13/12 09:11	02/16/12 17:42	1
2-Methylnaphthalene	ND		200	2.4	ug/Kg	☼	02/13/12 09:11	02/16/12 17:42	1
2-Nitroaniline	ND		380	63	ug/Kg	☼	02/13/12 09:11	02/16/12 17:42	1
3,3'-Dichlorobenzidine	ND		200	170	ug/Kg	☼	02/13/12 09:11	02/16/12 17:42	1
3-Nitroaniline	ND		380	45	ug/Kg	☼	02/13/12 09:11	02/16/12 17:42	1
4-Bromophenyl phenyl ether	ND		200	63	ug/Kg	☼	02/13/12 09:11	02/16/12 17:42	1
4-Chloroaniline	ND		200	58	ug/Kg	☼	02/13/12 09:11	02/16/12 17:42	1
4-Chlorophenyl phenyl ether	ND		200	4.2	ug/Kg	☼	02/13/12 09:11	02/16/12 17:42	1
4-Nitroaniline	ND		380	22	ug/Kg	☼	02/13/12 09:11	02/16/12 17:42	1
Acenaphthene	ND		200	2.3	ug/Kg	☼	02/13/12 09:11	02/16/12 17:42	1
Acenaphthylene	ND		200	1.6	ug/Kg	☼	02/13/12 09:11	02/16/12 17:42	1
Acetophenone	ND		200	10	ug/Kg	☼	02/13/12 09:11	02/16/12 17:42	1
Anthracene	ND		200	5.0	ug/Kg	☼	02/13/12 09:11	02/16/12 17:42	1
Atrazine	ND	*	200	8.8	ug/Kg	☼	02/13/12 09:11	02/16/12 17:42	1
Benzaldehyde	ND		200	22	ug/Kg	☼	02/13/12 09:11	02/16/12 17:42	1
Benzo(a)anthracene	ND		200	3.4	ug/Kg	☼	02/13/12 09:11	02/16/12 17:42	1
Benzo(a)pyrene	ND		200	4.7	ug/Kg	☼	02/13/12 09:11	02/16/12 17:42	1
Benzo(b)fluoranthene	ND		200	3.8	ug/Kg	☼	02/13/12 09:11	02/16/12 17:42	1
Benzo(g,h,i)perylene	ND		200	2.4	ug/Kg	☼	02/13/12 09:11	02/16/12 17:42	1
Benzo(k)fluoranthene	ND		200	2.2	ug/Kg	☼	02/13/12 09:11	02/16/12 17:42	1
Biphenyl	ND		200	12	ug/Kg	☼	02/13/12 09:11	02/16/12 17:42	1
bis (2-chloroisopropyl) ether	ND		200	21	ug/Kg	☼	02/13/12 09:11	02/16/12 17:42	1
Bis(2-chloroethoxy)methane	ND		200	11	ug/Kg	☼	02/13/12 09:11	02/16/12 17:42	1
Bis(2-chloroethyl)ether	ND		200	17	ug/Kg	☼	02/13/12 09:11	02/16/12 17:42	1
Bis(2-ethylhexyl) phthalate	ND		200	63	ug/Kg	☼	02/13/12 09:11	02/16/12 17:42	1
Butyl benzyl phthalate	ND		200	53	ug/Kg	☼	02/13/12 09:11	02/16/12 17:42	1
Caprolactam	ND		200	85	ug/Kg	☼	02/13/12 09:11	02/16/12 17:42	1
Carbazole	ND		200	2.3	ug/Kg	☼	02/13/12 09:11	02/16/12 17:42	1
Chrysene	ND		200	2.0	ug/Kg	☼	02/13/12 09:11	02/16/12 17:42	1
Dibenz(a,h)anthracene	ND		200	2.3	ug/Kg	☼	02/13/12 09:11	02/16/12 17:42	1
Dibenzofuran	ND		200	2.0	ug/Kg	☼	02/13/12 09:11	02/16/12 17:42	1
Diethyl phthalate	ND		200	5.9	ug/Kg	☼	02/13/12 09:11	02/16/12 17:42	1
Dimethyl phthalate	ND		200	5.1	ug/Kg	☼	02/13/12 09:11	02/16/12 17:42	1
Di-n-butyl phthalate	ND		200	68	ug/Kg	☼	02/13/12 09:11	02/16/12 17:42	1
Di-n-octyl phthalate	ND		200	4.6	ug/Kg	☼	02/13/12 09:11	02/16/12 17:42	1
Fluoranthene	ND		200	2.8	ug/Kg	☼	02/13/12 09:11	02/16/12 17:42	1
Fluorene	ND		200	4.5	ug/Kg	☼	02/13/12 09:11	02/16/12 17:42	1
Hexachlorobenzene	ND		200	9.8	ug/Kg	☼	02/13/12 09:11	02/16/12 17:42	1
Hexachlorobutadiene	ND		200	10	ug/Kg	☼	02/13/12 09:11	02/16/12 17:42	1
Hexachlorocyclopentadiene	ND		200	59	ug/Kg	☼	02/13/12 09:11	02/16/12 17:42	1
Hexachloroethane	ND		200	15	ug/Kg	☼	02/13/12 09:11	02/16/12 17:42	1
Indeno(1,2,3-cd)pyrene	ND		200	5.4	ug/Kg	☼	02/13/12 09:11	02/16/12 17:42	1
Isophorone	ND		200	9.8	ug/Kg	☼	02/13/12 09:11	02/16/12 17:42	1
Naphthalene	ND		200	3.3	ug/Kg	☼	02/13/12 09:11	02/16/12 17:42	1

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16017-1

Client Sample ID: TP-10 (0-2)
Date Collected: 02/08/12 16:30
Date Received: 02/09/12 13:40

Lab Sample ID: 480-16017-10
Matrix: Solid
Percent Solids: 85.3

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	ND		200	8.7	ug/Kg	☼	02/13/12 09:11	02/16/12 17:42	1
N-Nitrosodi-n-propylamine	ND		200	16	ug/Kg	☼	02/13/12 09:11	02/16/12 17:42	1
N-Nitrosodiphenylamine	ND		200	11	ug/Kg	☼	02/13/12 09:11	02/16/12 17:42	1
Phenanthrene	ND		200	4.1	ug/Kg	☼	02/13/12 09:11	02/16/12 17:42	1
Pyrene	ND		200	1.3	ug/Kg	☼	02/13/12 09:11	02/16/12 17:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*101*		*39 - 146*	*02/13/12 09:11*	*02/16/12 17:42*	*1*
2-Fluorobiphenyl	*91*		*37 - 120*	*02/13/12 09:11*	*02/16/12 17:42*	*1*
2-Fluorophenol	*72*		*18 - 120*	*02/13/12 09:11*	*02/16/12 17:42*	*1*
Nitrobenzene-d5	*85*		*34 - 132*	*02/13/12 09:11*	*02/16/12 17:42*	*1*
Phenol-d5	*81*		*11 - 120*	*02/13/12 09:11*	*02/16/12 17:42*	*1*
p-Terphenyl-d14	*96*		*65 - 153*	*02/13/12 09:11*	*02/16/12 17:42*	*1*

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		220	43	ug/Kg	☼	02/13/12 09:41	02/13/12 22:20	1
PCB-1221	ND		220	43	ug/Kg	☼	02/13/12 09:41	02/13/12 22:20	1
PCB-1232	ND		220	43	ug/Kg	☼	02/13/12 09:41	02/13/12 22:20	1
PCB-1242	ND		220	43	ug/Kg	☼	02/13/12 09:41	02/13/12 22:20	1
PCB-1248	ND		220	43	ug/Kg	☼	02/13/12 09:41	02/13/12 22:20	1
PCB-1254	ND		220	100	ug/Kg	☼	02/13/12 09:41	02/13/12 22:20	1
PCB-1260	ND		220	100	ug/Kg	☼	02/13/12 09:41	02/13/12 22:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*124*		*36 - 182*	*02/13/12 09:41*	*02/13/12 22:20*	*1*
DCB Decachlorobiphenyl	*120*		*36 - 182*	*02/13/12 09:41*	*02/13/12 22:20*	*1*
Tetrachloro-m-xylene	*110*		*24 - 172*	*02/13/12 09:41*	*02/13/12 22:20*	*1*
Tetrachloro-m-xylene	*121*		*24 - 172*	*02/13/12 09:41*	*02/13/12 22:20*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**4.8**		2.4		mg/Kg	☼	02/13/12 10:00	02/13/12 20:03	1
Barium	**51.8**		0.60		mg/Kg	☼	02/13/12 10:00	02/13/12 20:03	1
Cadmium	**0.28**		0.24		mg/Kg	☼	02/13/12 10:00	02/13/12 20:03	1
Chromium	**8.7**		0.60		mg/Kg	☼	02/13/12 10:00	02/13/12 20:03	1
Lead	**8.0**		1.2		mg/Kg	☼	02/13/12 10:00	02/13/12 20:03	1
Selenium	ND		4.8		mg/Kg	☼	02/13/12 10:00	02/13/12 20:03	1
Silver	ND		0.60		mg/Kg	☼	02/13/12 10:00	02/13/12 20:03	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.024**		0.024		mg/Kg	☼	02/14/12 11:40	02/14/12 14:00	1

Surrogate Summary

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16017-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		12DCE	TOL	BFB
Lab Sample ID	Client Sample ID	(64-126)	(71-125)	(72-126)
480-16017-1	TP-14 (0-2)	107	108	105
480-16017-1 MS	TP-14 (0-2)	94	103	101
480-16017-1 MSD	TP-14 (0-2)	97	108	105
480-16017-2	TP-15 (0-2)	108	109	107
480-16017-3	TP-3 (0-2)	107	107	107
480-16017-4	TP-4 (0-2)	103	105	103
480-16017-5	TP-5 (0-2)	110	111	108
480-16017-6	TP-11 (0-2)	108	107	104
480-16017-7	TP-17 (0-2)	107	109	106
480-16017-8	TP-9 (0-2)	111	110	107
480-16017-9	TP-20 (0-2)	106	103	102
480-16017-10	TP-10 (0-2)	105	105	103
LCS 480-51456/7	Lab Control Sample	104	109	107
MB 480-51456/8	Method Blank	106	109	105

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	TPH	PHL
Lab Sample ID	Client Sample ID	(39-146)	(37-120)	(18-120)	(34-132)	(65-153)	(11-120)
480-16017-1	TP-14 (0-2)	120	127 X	101	116	131	117
480-16017-1 MS	TP-14 (0-2)	127	122 X	102	118	133	112
480-16017-1 MSD	TP-14 (0-2)	127	124 X	107	115	133	116
480-16017-2	TP-15 (0-2)	111	111	85	106	119	98
480-16017-3	TP-3 (0-2)	114	107	90	103	112	102
480-16017-4	TP-4 (0-2)	116	106	85	97	112	96
480-16017-5	TP-5 (0-2)	104	107	89	96	115	98
480-16017-6	TP-11 (0-2)	119	111	91	106	111	101
480-16017-7	TP-17 (0-2)	101	107	91	99	115	97
480-16017-8	TP-9 (0-2)	106	99	78	93	100	88
480-16017-9	TP-20 (0-2)	107	93	76	87	99	86
480-16017-10	TP-10 (0-2)	101	91	72	85	96	81
LCS 480-51361/2-A	Lab Control Sample	107	96	87	94	110	91
MB 480-51361/1-A	Method Blank	112	101	88	99	125	96

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
TPH = p-Terphenyl-d14
PHL = Phenol-d5

Surrogate Summary

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16017-1

Method: 8081A - Organochlorine Pesticides (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCB1	DCB2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(62-137)	(62-137)	(30-124)	(30-124)
480-16017-1	TP-14 (0-2)	0 X	0 X	0 X	0 X
480-16017-1 MS	TP-14 (0-2)	0 X	0 X	0 X	0 X
480-16017-1 MSD	TP-14 (0-2)	0 X	0 X	0 X	0 X
480-16017-2	TP-15 (0-2)	0 X	0 X	0 X	0 X
LCS 480-51406/2-A	Lab Control Sample	85	76	63	81
MB 480-51406/1-A	Method Blank	86	92	68	81

Surrogate Legend

DCB = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCB1	DCB2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(36-182)	(36-182)	(24-172)	(24-172)
480-16017-1	TP-14 (0-2)	80	82	75	83
480-16017-1 MS	TP-14 (0-2)	135	131	128	131
480-16017-1 MSD	TP-14 (0-2)	128	123	122	124
480-16017-2	TP-15 (0-2)	132	129	89	99
480-16017-3	TP-3 (0-2)	111	108	102	112
480-16017-4	TP-4 (0-2)	99	96	91	99
480-16017-5	TP-5 (0-2)	110	107	102	111
480-16017-6	TP-11 (0-2)	110	107	103	112
480-16017-7	TP-17 (0-2)	114	109	104	114
480-16017-8	TP-9 (0-2)	112	109	105	114
480-16017-9	TP-20 (0-2)	115	111	103	114
480-16017-10	TP-10 (0-2)	124	120	110	121
LCS 480-51370/2-A	Lab Control Sample	147	141	138	140
MB 480-51370/1-A	Method Blank	132	126	115	126

Surrogate Legend

DCB = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Method: 8151A - Herbicides (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		DCPA1	DCPA2
Lab Sample ID	Client Sample ID	(39-120)	(39-120)
480-16017-1	TP-14 (0-2)	86	113
480-16017-1 MS	TP-14 (0-2)	82	120
480-16017-1 MSD	TP-14 (0-2)	88	130 X
480-16017-2	TP-15 (0-2)	96	97
LCS 480-51410/2-A	Lab Control Sample	77	76
MB 480-51410/1-A	Method Blank	79	76

Surrogate Legend

DCPA = 2,4-Dichlorophenylacetic acid

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16017-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-51456/8
Matrix: Solid
Analysis Batch: 51456

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.36	ug/Kg			02/13/12 22:41	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.81	ug/Kg			02/13/12 22:41	1
1,1,2-Trichloroethane	ND		5.0	0.65	ug/Kg			02/13/12 22:41	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.1	ug/Kg			02/13/12 22:41	1
1,1-Dichloroethane	ND		5.0	0.61	ug/Kg			02/13/12 22:41	1
1,1-Dichloroethene	ND		5.0	0.61	ug/Kg			02/13/12 22:41	1
1,2,4-Trichlorobenzene	ND		5.0	0.30	ug/Kg			02/13/12 22:41	1
1,2-Dibromo-3-Chloropropane	ND		5.0	2.5	ug/Kg			02/13/12 22:41	1
1,2-Dibromoethane	ND		5.0	0.64	ug/Kg			02/13/12 22:41	1
1,2-Dichlorobenzene	ND		5.0	0.39	ug/Kg			02/13/12 22:41	1
1,2-Dichloroethane	ND		5.0	0.25	ug/Kg			02/13/12 22:41	1
1,2-Dichloropropane	ND		5.0	2.5	ug/Kg			02/13/12 22:41	1
1,3-Dichlorobenzene	ND		5.0	0.26	ug/Kg			02/13/12 22:41	1
1,4-Dichlorobenzene	ND		5.0	0.70	ug/Kg			02/13/12 22:41	1
2-Hexanone	ND		25	2.5	ug/Kg			02/13/12 22:41	1
2-Butanone (MEK)	ND		25	1.8	ug/Kg			02/13/12 22:41	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.6	ug/Kg			02/13/12 22:41	1
Acetone	ND		25	4.2	ug/Kg			02/13/12 22:41	1
Benzene	ND		5.0	0.25	ug/Kg			02/13/12 22:41	1
Bromodichloromethane	ND		5.0	0.67	ug/Kg			02/13/12 22:41	1
Bromoform	ND		5.0	2.5	ug/Kg			02/13/12 22:41	1
Bromomethane	ND		5.0	0.45	ug/Kg			02/13/12 22:41	1
Carbon disulfide	ND		5.0	2.5	ug/Kg			02/13/12 22:41	1
Carbon tetrachloride	ND		5.0	0.48	ug/Kg			02/13/12 22:41	1
Chlorobenzene	ND		5.0	0.66	ug/Kg			02/13/12 22:41	1
Dibromochloromethane	ND		5.0	0.64	ug/Kg			02/13/12 22:41	1
Chloroethane	ND		5.0	1.1	ug/Kg			02/13/12 22:41	1
Chloroform	ND		5.0	0.31	ug/Kg			02/13/12 22:41	1
Chloromethane	ND		5.0	0.30	ug/Kg			02/13/12 22:41	1
cis-1,2-Dichloroethene	ND		5.0	0.64	ug/Kg			02/13/12 22:41	1
cis-1,3-Dichloropropene	ND		5.0	0.72	ug/Kg			02/13/12 22:41	1
Cyclohexane	ND		5.0	0.70	ug/Kg			02/13/12 22:41	1
Dichlorodifluoromethane	ND		5.0	0.41	ug/Kg			02/13/12 22:41	1
Ethylbenzene	ND		5.0	0.35	ug/Kg			02/13/12 22:41	1
Isopropylbenzene	ND		5.0	0.75	ug/Kg			02/13/12 22:41	1
Methyl acetate	ND		5.0	0.93	ug/Kg			02/13/12 22:41	1
Methyl tert-butyl ether	ND		5.0	0.49	ug/Kg			02/13/12 22:41	1
Methylcyclohexane	ND		5.0	0.76	ug/Kg			02/13/12 22:41	1
Methylene Chloride	ND		5.0	2.3	ug/Kg			02/13/12 22:41	1
Styrene	ND		5.0	0.25	ug/Kg			02/13/12 22:41	1
Tetrachloroethene	ND		5.0	0.67	ug/Kg			02/13/12 22:41	1
Toluene	ND		5.0	0.38	ug/Kg			02/13/12 22:41	1
trans-1,2-Dichloroethene	ND		5.0	0.52	ug/Kg			02/13/12 22:41	1
trans-1,3-Dichloropropene	ND		5.0	2.2	ug/Kg			02/13/12 22:41	1
Trichloroethene	ND		5.0	1.1	ug/Kg			02/13/12 22:41	1
Trichlorofluoromethane	ND		5.0	0.47	ug/Kg			02/13/12 22:41	1
Vinyl chloride	ND		5.0	0.61	ug/Kg			02/13/12 22:41	1
Xylenes, Total	ND		10	0.84	ug/Kg			02/13/12 22:41	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-51456/8
Matrix: Solid
Analysis Batch: 51456

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		64 - 126		02/13/12 22:41	1
Toluene-d8 (Surr)	109		71 - 125		02/13/12 22:41	1
4-Bromofluorobenzene (Surr)	105		72 - 126		02/13/12 22:41	1

Lab Sample ID: LCS 480-51456/7
Matrix: Solid
Analysis Batch: 51456

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	50.0	54.4		ug/Kg		109	79 - 126
1,1-Dichloroethene	50.0	55.8		ug/Kg		112	65 - 153
1,2-Dichlorobenzene	50.0	53.5		ug/Kg		107	75 - 120
1,2-Dichloroethane	50.0	56.2		ug/Kg		112	77 - 122
Benzene	50.0	55.1		ug/Kg		110	79 - 127
Chlorobenzene	50.0	54.0		ug/Kg		108	76 - 124
cis-1,2-Dichloroethene	50.0	54.3		ug/Kg		109	81 - 117
Ethylbenzene	50.0	54.1		ug/Kg		108	80 - 120
Methyl tert-butyl ether	50.0	52.7		ug/Kg		105	63 - 125
Tetrachloroethene	50.0	54.6		ug/Kg		109	74 - 122
Toluene	50.0	53.4		ug/Kg		107	74 - 128
trans-1,2-Dichloroethene	50.0	55.4		ug/Kg		111	78 - 126
Trichloroethene	50.0	54.8		ug/Kg		110	77 - 129

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	104		64 - 126
Toluene-d8 (Surr)	109		71 - 125
4-Bromofluorobenzene (Surr)	107		72 - 126

Lab Sample ID: 480-16017-1 MS
Matrix: Solid
Analysis Batch: 51456

Client Sample ID: TP-14 (0-2)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	ND		56.4	51.6		ug/Kg	☼	91	79 - 126
1,1-Dichloroethene	ND		56.4	52.1		ug/Kg	☼	92	65 - 153
1,2-Dichlorobenzene	ND		56.4	36.7	F	ug/Kg	☼	65	75 - 120
1,2-Dichloroethane	ND		56.4	47.9		ug/Kg	☼	85	77 - 122
Benzene	ND		56.4	50.8		ug/Kg	☼	90	79 - 127
Chlorobenzene	ND		56.4	44.8		ug/Kg	☼	79	76 - 124
cis-1,2-Dichloroethene	ND		56.4	48.6		ug/Kg	☼	86	81 - 117
Ethylbenzene	ND		56.4	45.5		ug/Kg	☼	81	80 - 120
Methyl tert-butyl ether	ND		56.4	48.4		ug/Kg	☼	86	63 - 125
Tetrachloroethene	ND		56.4	44.4		ug/Kg	☼	79	74 - 122
Toluene	ND		56.4	47.6		ug/Kg	☼	84	74 - 128
trans-1,2-Dichloroethene	ND		56.4	51.1		ug/Kg	☼	91	78 - 126
Trichloroethene	ND		56.4	47.7		ug/Kg	☼	85	77 - 129

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	94		64 - 126

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 480-16017-1 MS
Matrix: Solid
Analysis Batch: 51456

Client Sample ID: TP-14 (0-2)
Prep Type: Total/NA

Surrogate	MS %Recovery	MS Qualifier	Limits
Toluene-d8 (Surr)	*103*		*71 - 125*
4-Bromofluorobenzene (Surr)	*101*		*72 - 126*

Lab Sample ID: 480-16017-1 MSD
Matrix: Solid
Analysis Batch: 51456

Client Sample ID: TP-14 (0-2)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethane	ND		57.3	57.2		ug/Kg	☼	100	79 - 126	10	30
1,1-Dichloroethene	ND		57.3	59.7		ug/Kg	☼	104	65 - 153	14	30
1,2-Dichlorobenzene	ND		57.3	43.3		ug/Kg	☼	76	75 - 120	17	30
1,2-Dichloroethane	ND		57.3	53.7		ug/Kg	☼	94	77 - 122	11	30
Benzene	ND		57.3	57.1		ug/Kg	☼	100	79 - 127	12	30
Chlorobenzene	ND		57.3	51.6		ug/Kg	☼	90	76 - 124	14	30
cis-1,2-Dichloroethene	ND		57.3	54.7		ug/Kg	☼	95	81 - 117	12	30
Ethylbenzene	ND		57.3	52.6		ug/Kg	☼	92	80 - 120	15	30
Methyl tert-butyl ether	ND		57.3	52.1		ug/Kg	☼	91	63 - 125	7	30
Tetrachloroethene	ND		57.3	52.6		ug/Kg	☼	92	74 - 122	17	30
Toluene	ND		57.3	54.2		ug/Kg	☼	95	74 - 128	13	30
trans-1,2-Dichloroethene	ND		57.3	58.0		ug/Kg	☼	101	78 - 126	13	30
Trichloroethene	ND		57.3	54.2		ug/Kg	☼	95	77 - 129	13	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*97*		*64 - 126*
Toluene-d8 (Surr)	*108*		*71 - 125*
4-Bromofluorobenzene (Surr)	*105*		*72 - 126*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-51361/1-A
Matrix: Solid
Analysis Batch: 51836

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 51361

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		170	36	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
2,4,6-Trichlorophenol	ND		170	11	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
2,4-Dichlorophenol	ND		170	8.7	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
2,4-Dimethylphenol	ND		170	45	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
2,4-Dinitrophenol	ND		320	58	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
2,4-Dinitrotoluene	ND		170	26	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
2,6-Dinitrotoluene	ND		170	41	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
2-Chloronaphthalene	ND		170	11	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
2-Chlorophenol	ND		170	8.4	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
2-Methylnaphthalene	ND		170	2.0	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
2-Methylphenol	ND		170	5.1	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
2-Nitroaniline	ND		320	53	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
2-Nitrophenol	ND		170	7.6	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
3,3'-Dichlorobenzidine	ND		170	150	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
3-Nitroaniline	ND		320	38	ug/Kg		02/13/12 09:11	02/16/12 13:25	1

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16017-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-51361/1-A
Matrix: Solid
Analysis Batch: 51836

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 51361

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,6-Dinitro-2-methylphenol	ND		320	57	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
4-Bromophenyl phenyl ether	ND		170	53	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
4-Chloro-3-methylphenol	ND		170	6.8	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
4-Chloroaniline	ND		170	49	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
4-Chlorophenyl phenyl ether	ND		170	3.5	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
4-Methylphenol	ND		320	9.2	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
4-Nitroaniline	ND		320	18	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
4-Nitrophenol	ND		320	40	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
Acenaphthene	ND		170	1.9	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
Biphenyl	ND		170	10	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
Acenaphthylene	ND		170	1.4	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
bis (2-chloroisopropyl) ether	ND		170	17	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
Acetophenone	ND		170	8.5	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
Anthracene	ND		170	4.2	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
Atrazine	ND		170	7.4	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
Benzaldehyde	ND		170	18	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
Benzo(a)anthracene	ND		170	2.9	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
Benzo(a)pyrene	ND		170	4.0	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
Benzo(b)fluoranthene	ND		170	3.2	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
Benzo(g,h,i)perylene	ND		170	2.0	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
Benzo(k)fluoranthene	ND		170	1.8	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
Bis(2-chloroethoxy)methane	ND		170	9.0	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
Bis(2-chloroethyl)ether	ND		170	14	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
Bis(2-ethylhexyl) phthalate	ND		170	53	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
Butyl benzyl phthalate	ND		170	44	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
Caprolactam	ND		170	72	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
Carbazole	ND		170	1.9	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
Chrysene	ND		170	1.7	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
Di-n-butyl phthalate	ND		170	57	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
Di-n-octyl phthalate	ND		170	3.9	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
Dibenz(a,h)anthracene	ND		170	1.9	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
Dibenzofuran	ND		170	1.7	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
Diethyl phthalate	ND		170	5.0	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
Dimethyl phthalate	ND		170	4.3	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
Fluoranthene	ND		170	2.4	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
Fluorene	ND		170	3.8	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
Hexachlorobenzene	ND		170	8.2	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
Hexachlorobutadiene	ND		170	8.5	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
Hexachlorocyclopentadiene	ND		170	50	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
Hexachloroethane	ND		170	13	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
Indeno(1,2,3-cd)pyrene	ND		170	4.6	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
Isophorone	ND		170	8.3	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
N-Nitrosodi-n-propylamine	ND		170	13	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
N-Nitrosodiphenylamine	ND		170	9.1	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
Naphthalene	ND		170	2.8	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
Nitrobenzene	ND		170	7.3	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
Pentachlorophenol	ND		320	57	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
Phenanthrene	ND		170	3.5	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
Phenol	ND		170	17	ug/Kg		02/13/12 09:11	02/16/12 13:25	1
Pyrene	ND		170	1.1	ug/Kg		02/13/12 09:11	02/16/12 13:25	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-51361/1-A
Matrix: Solid
Analysis Batch: 51836

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 51361

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	112		39 - 146	02/13/12 09:11	02/16/12 13:25	1
2-Fluorobiphenyl	101		37 - 120	02/13/12 09:11	02/16/12 13:25	1
2-Fluorophenol	88		18 - 120	02/13/12 09:11	02/16/12 13:25	1
Nitrobenzene-d5	99		34 - 132	02/13/12 09:11	02/16/12 13:25	1
p-Terphenyl-d14	125		65 - 153	02/13/12 09:11	02/16/12 13:25	1
Phenol-d5	96		11 - 120	02/13/12 09:11	02/16/12 13:25	1

Lab Sample ID: LCS 480-51361/2-A
Matrix: Solid
Analysis Batch: 52014

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 51361

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4-Dinitrotoluene	3300	3980		ug/Kg		120	55 - 125
2-Chlorophenol	3300	2950		ug/Kg		89	38 - 120
4-Chloro-3-methylphenol	3300	3420		ug/Kg		103	49 - 125
4-Nitrophenol	3300	3990		ug/Kg		121	43 - 137
Acenaphthene	3300	3250		ug/Kg		98	53 - 120
Bis(2-ethylhexyl) phthalate	3300	3720		ug/Kg		112	61 - 133
Fluorene	3300	3380		ug/Kg		102	63 - 126
Hexachloroethane	3300	2810		ug/Kg		85	41 - 120
N-Nitrosodi-n-propylamine	3300	3320		ug/Kg		101	46 - 120
Pentachlorophenol	3300	3590		ug/Kg		109	33 - 136
Phenol	3300	2960		ug/Kg		89	36 - 120
Pyrene	3300	3420		ug/Kg		103	51 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol	107		39 - 146
2-Fluorobiphenyl	96		37 - 120
2-Fluorophenol	87		18 - 120
Nitrobenzene-d5	94		34 - 132
p-Terphenyl-d14	110		65 - 153
Phenol-d5	91		11 - 120

Lab Sample ID: 480-16017-1 MS
Matrix: Solid
Analysis Batch: 51742

Client Sample ID: TP-14 (0-2)
Prep Type: Total/NA
Prep Batch: 51361

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4-Dinitrotoluene	ND		3850	4850	F	ug/Kg	☼	126	55 - 125
2-Chlorophenol	ND		3850	4150		ug/Kg	☼	108	38 - 120
4-Chloro-3-methylphenol	ND		3850	4540		ug/Kg	☼	118	49 - 125
4-Nitrophenol	ND		3850	4500		ug/Kg	☼	117	43 - 137
Acenaphthene	ND		3850	4730	F	ug/Kg	☼	123	53 - 120
Bis(2-ethylhexyl) phthalate	ND		3850	5000		ug/Kg	☼	130	61 - 133
Fluorene	ND		3850	4810		ug/Kg	☼	125	63 - 126
Hexachloroethane	ND		3850	4080		ug/Kg	☼	106	41 - 120
N-Nitrosodi-n-propylamine	ND		3850	4540		ug/Kg	☼	118	46 - 120
Pentachlorophenol	ND		3850	3790	J	ug/Kg	☼	99	33 - 136
Phenol	ND		3850	4270		ug/Kg	☼	111	36 - 120

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 480-16017-1 MS
Matrix: Solid
Analysis Batch: 51742

Client Sample ID: TP-14 (0-2)
Prep Type: Total/NA
Prep Batch: 51361

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Pyrene	860	J	3850	5420		ug/Kg	☼	119	51 - 133

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2,4,6-Tribromophenol	*127*		*39 - 146*
2-Fluorobiphenyl	*122*	*X*	*37 - 120*
2-Fluorophenol	*102*		*18 - 120*
Nitrobenzene-d5	*118*		*34 - 132*
p-Terphenyl-d14	*133*		*65 - 153*
Phenol-d5	*112*		*11 - 120*

Lab Sample ID: 480-16017-1 MSD
Matrix: Solid
Analysis Batch: 51836

Client Sample ID: TP-14 (0-2)
Prep Type: Total/NA
Prep Batch: 51361

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4-Dinitrotoluene	ND		3780	4840	F	ug/Kg	☼	128	55 - 125	0	20
2-Chlorophenol	ND		3780	4160		ug/Kg	☼	110	38 - 120	0	25
4-Chloro-3-methylphenol	ND		3780	4240		ug/Kg	☼	112	49 - 125	7	27
4-Nitrophenol	ND		3780	4120		ug/Kg	☼	109	43 - 137	9	25
Acenaphthene	ND		3780	4690	F	ug/Kg	☼	124	53 - 120	1	35
Bis(2-ethylhexyl) phthalate	ND		3780	4950		ug/Kg	☼	131	61 - 133	1	15
Fluorene	ND		3780	4610		ug/Kg	☼	122	63 - 126	4	15
Hexachloroethane	ND		3780	4080		ug/Kg	☼	108	41 - 120	0	46
N-Nitrosodi-n-propylamine	ND		3780	4800	F	ug/Kg	☼	127	46 - 120	6	31
Pentachlorophenol	ND		3780	3540	J	ug/Kg	☼	94	33 - 136	7	35
Phenol	ND		3780	4240		ug/Kg	☼	112	36 - 120	1	35
Pyrene	860	J	3780	4990		ug/Kg	☼	109	51 - 133	8	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*127*		*39 - 146*
2-Fluorobiphenyl	*124*	*X*	*37 - 120*
2-Fluorophenol	*107*		*18 - 120*
Nitrobenzene-d5	*115*		*34 - 132*
p-Terphenyl-d14	*133*		*65 - 153*
Phenol-d5	*116*		*11 - 120*

Method: 8081A - Organochlorine Pesticides (GC)

Lab Sample ID: MB 480-51406/1-A
Matrix: Solid
Analysis Batch: 51644

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 51406

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		1.6	0.32	ug/Kg		02/13/12 13:54	02/15/12 11:33	1
4,4'-DDE	ND		1.6	0.25	ug/Kg		02/13/12 13:54	02/15/12 11:33	1
4,4'-DDT	ND		1.6	0.17	ug/Kg		02/13/12 13:54	02/15/12 11:33	1
Aldrin	ND		1.6	0.40	ug/Kg		02/13/12 13:54	02/15/12 11:33	1
alpha-BHC	ND		1.6	0.30	ug/Kg		02/13/12 13:54	02/15/12 11:33	1
alpha-Chlordane	ND		1.6	0.82	ug/Kg		02/13/12 13:54	02/15/12 11:33	1

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 480-51406/1-A
Matrix: Solid
Analysis Batch: 51644

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 51406

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
beta-BHC	ND		1.6	0.18	ug/Kg		02/13/12 13:54	02/15/12 11:33	1
delta-BHC	ND		1.6	0.22	ug/Kg		02/13/12 13:54	02/15/12 11:33	1
Dieldrin	ND		1.6	0.39	ug/Kg		02/13/12 13:54	02/15/12 11:33	1
Endosulfan I	ND		1.6	0.21	ug/Kg		02/13/12 13:54	02/15/12 11:33	1
Endosulfan II	ND		1.6	0.30	ug/Kg		02/13/12 13:54	02/15/12 11:33	1
Endosulfan sulfate	ND		1.6	0.31	ug/Kg		02/13/12 13:54	02/15/12 11:33	1
Endrin	ND		1.6	0.23	ug/Kg		02/13/12 13:54	02/15/12 11:33	1
Endrin aldehyde	ND		1.6	0.42	ug/Kg		02/13/12 13:54	02/15/12 11:33	1
Endrin ketone	ND		1.6	0.40	ug/Kg		02/13/12 13:54	02/15/12 11:33	1
gamma-BHC (Lindane)	ND		1.6	1.2	ug/Kg		02/13/12 13:54	02/15/12 11:33	1
gamma-Chlordane	ND		1.6	0.52	ug/Kg		02/13/12 13:54	02/15/12 11:33	1
Heptachlor	ND		1.6	0.26	ug/Kg		02/13/12 13:54	02/15/12 11:33	1
Heptachlor epoxide	ND		1.6	0.42	ug/Kg		02/13/12 13:54	02/15/12 11:33	1
Methoxychlor	ND		1.6	0.23	ug/Kg		02/13/12 13:54	02/15/12 11:33	1
Toxaphene	ND		16	9.6	ug/Kg		02/13/12 13:54	02/15/12 11:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*86*		*62 - 137*	*02/13/12 13:54*	*02/15/12 11:33*	*1*
DCB Decachlorobiphenyl	*92*		*62 - 137*	*02/13/12 13:54*	*02/15/12 11:33*	*1*
Tetrachloro-m-xylene	*68*		*30 - 124*	*02/13/12 13:54*	*02/15/12 11:33*	*1*
Tetrachloro-m-xylene	*81*		*30 - 124*	*02/13/12 13:54*	*02/15/12 11:33*	*1*

Lab Sample ID: LCS 480-51406/2-A
Matrix: Solid
Analysis Batch: 51644

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 51406

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	16.6	11.6		ug/Kg		70	45 - 129
4,4'-DDE	16.6	11.2		ug/Kg		68	49 - 120
4,4'-DDT	16.6	11.5		ug/Kg		69	47 - 145
Aldrin	16.6	9.98		ug/Kg		60	35 - 120
alpha-BHC	16.6	9.35		ug/Kg		56	49 - 120
alpha-Chlordane	16.6	8.82		ug/Kg		53	44 - 127
beta-BHC	16.6	11.2		ug/Kg		67	58 - 123
delta-BHC	16.6	10.1		ug/Kg		61	45 - 123
Dieldrin	16.6	11.4		ug/Kg		69	53 - 128
Endosulfan I	16.6	9.98		ug/Kg		60	29 - 125
Endosulfan II	16.6	10.8		ug/Kg		65	56 - 127
Endosulfan sulfate	16.6	12.2		ug/Kg		74	53 - 135
Endrin	16.6	11.0		ug/Kg		66	58 - 129
Endrin aldehyde	16.6	11.5		ug/Kg		69	39 - 133
Endrin ketone	16.6	12.7		ug/Kg		76	61 - 133
gamma-BHC (Lindane)	16.6	9.88		ug/Kg		60	50 - 120
gamma-Chlordane	16.6	11.0		ug/Kg		66	54 - 124
Heptachlor	16.6	10.5		ug/Kg		63	49 - 122
Heptachlor epoxide	16.6	11.0		ug/Kg		66	47 - 128
Methoxychlor	16.6	13.3		ug/Kg		80	61 - 146

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 480-51406/2-A
Matrix: Solid
Analysis Batch: 51644

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 51406

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	85		62 - 137
DCB Decachlorobiphenyl	76		62 - 137
Tetrachloro-m-xylene	63		30 - 124
Tetrachloro-m-xylene	81		30 - 124

Lab Sample ID: 480-16017-1 MS
Matrix: Solid
Analysis Batch: 51644

Client Sample ID: TP-14 (0-2)
Prep Type: Total/NA
Prep Batch: 51406

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	ND		19.1	ND		ug/Kg	☼	NC	53 - 124
4,4'-DDE	ND		19.1	ND		ug/Kg	☼	NC	44 - 123
4,4'-DDT	ND		19.1	ND	F	ug/Kg	☼	0	36 - 132
Aldrin	ND		19.1	ND		ug/Kg	☼	NC	35 - 120
alpha-BHC	ND		19.1	ND		ug/Kg	☼	NC	35 - 114
alpha-Chlordane	ND		19.1	ND		ug/Kg	☼	NC	47 - 121
beta-BHC	ND		19.1	ND		ug/Kg	☼	NC	50 - 121
delta-BHC	ND		19.1	ND		ug/Kg	☼	NC	45 - 123
Dieldrin	ND		19.1	ND		ug/Kg	☼	NC	47 - 120
Endosulfan I	ND		19.1	ND		ug/Kg	☼	NC	29 - 125
Endosulfan II	ND		19.1	ND		ug/Kg	☼	NC	21 - 137
Endosulfan sulfate	ND		19.1	ND		ug/Kg	☼	NC	34 - 136
Endrin	ND		19.1	ND		ug/Kg	☼	NC	53 - 120
Endrin aldehyde	ND		19.1	ND		ug/Kg	☼	NC	33 - 120
Endrin ketone	ND		19.1	ND		ug/Kg	☼	NC	49 - 131
gamma-BHC (Lindane)	ND		19.1	ND		ug/Kg	☼	NC	50 - 120
gamma-Chlordane	ND		19.1	ND		ug/Kg	☼	NC	51 - 120
Heptachlor	ND		19.1	ND		ug/Kg	☼	NC	47 - 120
Heptachlor epoxide	ND		19.1	ND		ug/Kg	☼	NC	44 - 122
Methoxychlor	ND		19.1	ND		ug/Kg	☼	NC	53 - 143

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl	0	X	62 - 137
DCB Decachlorobiphenyl	0	X	62 - 137
Tetrachloro-m-xylene	0	X	30 - 124
Tetrachloro-m-xylene	0	X	30 - 124

Lab Sample ID: 480-16017-1 MSD
Matrix: Solid
Analysis Batch: 51644

Client Sample ID: TP-14 (0-2)
Prep Type: Total/NA
Prep Batch: 51406

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4,4'-DDD	ND		19.1	ND		ug/Kg	☼	NC	53 - 124	NC	21
4,4'-DDE	ND		19.1	ND		ug/Kg	☼	NC	44 - 123	NC	18
4,4'-DDT	ND		19.1	ND	F	ug/Kg	☼	0	36 - 132	NC	25
Aldrin	ND		19.1	ND		ug/Kg	☼	NC	35 - 120	NC	12
alpha-BHC	ND		19.1	ND		ug/Kg	☼	NC	35 - 114	NC	15
alpha-Chlordane	ND		19.1	ND		ug/Kg	☼	NC	47 - 121	NC	23
beta-BHC	ND		19.1	ND		ug/Kg	☼	NC	50 - 121	NC	19

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 480-16017-1 MSD
Matrix: Solid
Analysis Batch: 51644

Client Sample ID: TP-14 (0-2)
Prep Type: Total/NA
Prep Batch: 51406

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
delta-BHC	ND		19.1	ND		ug/Kg	☼	NC	45 - 123	NC	14
Dieldrin	ND		19.1	ND		ug/Kg	☼	NC	47 - 120	NC	12
Endosulfan I	ND		19.1	ND		ug/Kg	☼	NC	29 - 125	NC	18
Endosulfan II	ND		19.1	ND		ug/Kg	☼	NC	21 - 137	NC	26
Endosulfan sulfate	ND		19.1	ND		ug/Kg	☼	NC	34 - 136	NC	35
Endrin	ND		19.1	ND		ug/Kg	☼	NC	53 - 120	NC	20
Endrin aldehyde	ND		19.1	ND		ug/Kg	☼	NC	33 - 120	NC	47
Endrin ketone	ND		19.1	ND		ug/Kg	☼	NC	49 - 131	NC	37
gamma-BHC (Lindane)	ND		19.1	ND		ug/Kg	☼	NC	50 - 120	NC	12
gamma-Chlordane	ND		19.1	ND		ug/Kg	☼	NC	51 - 120	NC	15
Heptachlor	ND		19.1	ND		ug/Kg	☼	NC	47 - 120	NC	22
Heptachlor epoxide	ND		19.1	ND		ug/Kg	☼	NC	44 - 122	NC	15
Methoxychlor	ND		19.1	ND		ug/Kg	☼	NC	53 - 143	NC	24

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*0*	*X*	*62 - 137*
DCB Decachlorobiphenyl	*0*	*X*	*62 - 137*
Tetrachloro-m-xylene	*0*	*X*	*30 - 124*
Tetrachloro-m-xylene	*0*	*X*	*30 - 124*

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 480-51370/1-A
Matrix: Solid
Analysis Batch: 51330

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 51370

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		230	46	ug/Kg		02/13/12 09:41	02/13/12 17:09	1
PCB-1221	ND		230	46	ug/Kg		02/13/12 09:41	02/13/12 17:09	1
PCB-1232	ND		230	46	ug/Kg		02/13/12 09:41	02/13/12 17:09	1
PCB-1242	ND		230	46	ug/Kg		02/13/12 09:41	02/13/12 17:09	1
PCB-1248	ND		230	46	ug/Kg		02/13/12 09:41	02/13/12 17:09	1
PCB-1254	ND		230	110	ug/Kg		02/13/12 09:41	02/13/12 17:09	1
PCB-1260	ND		230	110	ug/Kg		02/13/12 09:41	02/13/12 17:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*132*		*36 - 182*	*02/13/12 09:41*	*02/13/12 17:09*	*1*
DCB Decachlorobiphenyl	*126*		*36 - 182*	*02/13/12 09:41*	*02/13/12 17:09*	*1*
Tetrachloro-m-xylene	*115*		*24 - 172*	*02/13/12 09:41*	*02/13/12 17:09*	*1*
Tetrachloro-m-xylene	*126*		*24 - 172*	*02/13/12 09:41*	*02/13/12 17:09*	*1*

Lab Sample ID: LCS 480-51370/2-A
Matrix: Solid
Analysis Batch: 51330

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 51370

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	2430	3480		ug/Kg		143	51 - 185
PCB-1260	2430	3470		ug/Kg		143	61 - 184

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 480-51370/2-A
Matrix: Solid
Analysis Batch: 51330

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 51370

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*147*		*36 - 182*
DCB Decachlorobiphenyl	*141*		*36 - 182*
Tetrachloro-m-xylene	*138*		*24 - 172*
Tetrachloro-m-xylene	*140*		*24 - 172*

Lab Sample ID: 480-16017-1 MS
Matrix: Solid
Analysis Batch: 51330

Client Sample ID: TP-14 (0-2)
Prep Type: Total/NA
Prep Batch: 51370

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	ND		2430	2710		ug/Kg	☼	112	42 - 159
PCB-1260	ND		2430	2690		ug/Kg	☼	111	47 - 153

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*135*		*36 - 182*
DCB Decachlorobiphenyl	*131*		*36 - 182*
Tetrachloro-m-xylene	*128*		*24 - 172*
Tetrachloro-m-xylene	*131*		*24 - 172*

Lab Sample ID: 480-16017-1 MSD
Matrix: Solid
Analysis Batch: 51330

Client Sample ID: TP-14 (0-2)
Prep Type: Total/NA
Prep Batch: 51370

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016	ND		2530	2770		ug/Kg	☼	109	42 - 159	2	50
PCB-1260	ND		2530	2730		ug/Kg	☼	108	47 - 153	1	50

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*128*		*36 - 182*
DCB Decachlorobiphenyl	*123*		*36 - 182*
Tetrachloro-m-xylene	*122*		*24 - 172*
Tetrachloro-m-xylene	*124*		*24 - 172*

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 480-51410/1-A
Matrix: Solid
Analysis Batch: 51619

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 51410

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		16	5.2	ug/Kg		02/13/12 14:11	02/15/12 18:12	1
Silvex (2,4,5-TP)	ND		16	5.8	ug/Kg		02/13/12 14:11	02/15/12 18:12	1
2,4-D	ND		16	10	ug/Kg		02/13/12 14:11	02/15/12 18:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*79*		*39 - 120*	*02/13/12 14:11*	*02/15/12 18:12*	*1*
2,4-Dichlorophenylacetic acid	*76*		*39 - 120*	*02/13/12 14:11*	*02/15/12 18:12*	*1*

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: LCS 480-51410/2-A
Matrix: Solid
Analysis Batch: 51619

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 51410

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
2,4,5-T			65.5	51.3		ug/Kg		78	60 - 120		
Silvex (2,4,5-TP)			65.5	49.4		ug/Kg		75	56 - 130		
2,4-D			65.5	49.9		ug/Kg		76	63 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*77*		*39 - 120*
2,4-Dichlorophenylacetic acid	*76*		*39 - 120*

Lab Sample ID: 480-16017-1 MS
Matrix: Solid
Analysis Batch: 51619

Client Sample ID: TP-14 (0-2)
Prep Type: Total/NA
Prep Batch: 51410

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
2,4,5-T	ND		76.0	63.6		ug/Kg	☼	84	48 - 120		
Silvex (2,4,5-TP)	ND		76.0	60.5		ug/Kg	☼	80	38 - 124		
2,4-D	ND		76.0	60.0		ug/Kg	☼	79	37 - 136		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*82*		*39 - 120*
2,4-Dichlorophenylacetic acid	*120*		*39 - 120*

Lab Sample ID: 480-16017-1 MSD
Matrix: Solid
Analysis Batch: 51619

Client Sample ID: TP-14 (0-2)
Prep Type: Total/NA
Prep Batch: 51410

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4,5-T	ND		76.7	65.6		ug/Kg	☼	86	48 - 120	3	50
Silvex (2,4,5-TP)	ND		76.7	63.8		ug/Kg	☼	83	38 - 124	5	50
2,4-D	ND		76.7	67.4		ug/Kg	☼	88	37 - 136	12	50

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*88*		*39 - 120*
2,4-Dichlorophenylacetic acid	*130*	*X*	*39 - 120*

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 480-51352/1-A
Matrix: Solid
Analysis Batch: 51491

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 51352

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		1.9		mg/Kg		02/13/12 10:00	02/13/12 19:18	1
Barium	ND		0.48		mg/Kg		02/13/12 10:00	02/13/12 19:18	1
Cadmium	ND		0.19		mg/Kg		02/13/12 10:00	02/13/12 19:18	1
Chromium	ND		0.48		mg/Kg		02/13/12 10:00	02/13/12 19:18	1
Lead	ND		0.96		mg/Kg		02/13/12 10:00	02/13/12 19:18	1
Selenium	ND		3.8		mg/Kg		02/13/12 10:00	02/13/12 19:18	1
Silver	ND		0.48		mg/Kg		02/13/12 10:00	02/13/12 19:18	1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCSSRM 480-51352/2-A
Matrix: Solid
Analysis Batch: 51491

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 51352

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	109	106.0		mg/Kg		97	70 - 134
Barium	206	209.7		mg/Kg		102	73 - 127
Cadmium	80.2	77.77		mg/Kg		97	73 - 127
Chromium	117	113.1		mg/Kg		97	70 - 130
Lead	76.2	75.01		mg/Kg		98	69 - 131
Selenium	127	128.7		mg/Kg		101	67 - 134
Silver	41.0	39.21		mg/Kg		96	66 - 134

Lab Sample ID: 480-16017-1 MS
Matrix: Solid
Analysis Batch: 51491

Client Sample ID: TP-14 (0-2)
Prep Type: Total/NA
Prep Batch: 51352

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	7.4		45.5	55.77		mg/Kg	☼	106	75 - 125
Barium	92.5		45.5	159.7	F	mg/Kg	☼	148	75 - 125
Cadmium	0.36		45.5	46.14		mg/Kg	☼	101	75 - 125
Chromium	16.4		45.5	62.94		mg/Kg	☼	102	75 - 125
Lead	45.0		45.5	86.60		mg/Kg	☼	92	75 - 125
Selenium	ND		45.5	45.31		mg/Kg	☼	100	75 - 125
Silver	ND		11.4	10.09		mg/Kg	☼	89	75 - 125

Lab Sample ID: 480-16017-1 MSD
Matrix: Solid
Analysis Batch: 51491

Client Sample ID: TP-14 (0-2)
Prep Type: Total/NA
Prep Batch: 51352

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	7.4		43.1	51.04		mg/Kg	☼	101	75 - 125	9	20
Barium	92.5		43.1	136.6		mg/Kg	☼	102	75 - 125	16	20
Cadmium	0.36		43.1	44.52		mg/Kg	☼	103	75 - 125	4	20
Chromium	16.4		43.1	57.73		mg/Kg	☼	96	75 - 125	9	20
Lead	45.0		43.1	85.95		mg/Kg	☼	95	75 - 125	1	20
Selenium	ND		43.1	42.97		mg/Kg	☼	100	75 - 125	5	20
Silver	ND		10.8	8.98		mg/Kg	☼	83	75 - 125	12	20

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 480-51511/1-A
Matrix: Solid
Analysis Batch: 51568

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 51511

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.019		mg/Kg		02/14/12 11:40	02/14/12 13:13	1

Lab Sample ID: LCSSRM 480-51511/2-A
Matrix: Solid
Analysis Batch: 51568

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 51511

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	3.77	5.01		mg/Kg		133	51 - 149

Method: 7471A - Mercury (CVAA) (Continued)

Lab Sample ID: 480-16017-1 MS — **Client Sample ID: TP-14 (0-2)**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 51568 — **Prep Batch: 51511**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.082		0.356	0.462		mg/Kg	☼	107	75 - 125

Lab Sample ID: 480-16017-1 MSD — **Client Sample ID: TP-14 (0-2)**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 51568 — **Prep Batch: 51511**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.082		0.353	0.473		mg/Kg	☼	111	75 - 125	2	20

Method: 9012A - Cyanide, Total and/or Amenable

Lab Sample ID: MB 480-51464/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 51551 — **Prep Batch: 51464**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.99		mg/Kg		02/13/12 17:00	02/14/12 12:51	1

Lab Sample ID: LCS 480-51464/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 51551 — **Prep Batch: 51464**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	44.0	24.12		mg/Kg		55	29 - 122

Lab Sample ID: 480-16017-1 MS — **Client Sample ID: TP-14 (0-2)**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 51551 — **Prep Batch: 51464**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	ND		10.6	10.96		mg/Kg	☼	103	85 - 115

Lab Sample ID: 480-16017-1 MSD — **Client Sample ID: TP-14 (0-2)**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 51551 — **Prep Batch: 51464**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	ND		10.7	4.69	F	mg/Kg	☼	44	85 - 115	80	15

Lab Sample ID: 480-16017-2 DU — **Client Sample ID: TP-15 (0-2)**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 51551 — **Prep Batch: 51464**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cyanide, Total	ND		ND		mg/Kg	☼	NC	15

GC/MS VOA

Analysis Batch: 51456

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16017-1	TP-14 (0-2)	Total/NA	Solid	8260B	
480-16017-1 MS	TP-14 (0-2)	Total/NA	Solid	8260B	
480-16017-1 MSD	TP-14 (0-2)	Total/NA	Solid	8260B	
480-16017-2	TP-15 (0-2)	Total/NA	Solid	8260B	
480-16017-3	TP-3 (0-2)	Total/NA	Solid	8260B	
480-16017-4	TP-4 (0-2)	Total/NA	Solid	8260B	
480-16017-5	TP-5 (0-2)	Total/NA	Solid	8260B	
480-16017-6	TP-11 (0-2)	Total/NA	Solid	8260B	
480-16017-7	TP-17 (0-2)	Total/NA	Solid	8260B	
480-16017-8	TP-9 (0-2)	Total/NA	Solid	8260B	
480-16017-9	TP-20 (0-2)	Total/NA	Solid	8260B	
480-16017-10	TP-10 (0-2)	Total/NA	Solid	8260B	
LCS 480-51456/7	Lab Control Sample	Total/NA	Solid	8260B	
MB 480-51456/8	Method Blank	Total/NA	Solid	8260B	

GC/MS Semi VOA

Prep Batch: 51361

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16017-1	TP-14 (0-2)	Total/NA	Solid	3550B	
480-16017-1 MS	TP-14 (0-2)	Total/NA	Solid	3550B	
480-16017-1 MSD	TP-14 (0-2)	Total/NA	Solid	3550B	
480-16017-2	TP-15 (0-2)	Total/NA	Solid	3550B	
480-16017-3	TP-3 (0-2)	Total/NA	Solid	3550B	
480-16017-4	TP-4 (0-2)	Total/NA	Solid	3550B	
480-16017-5	TP-5 (0-2)	Total/NA	Solid	3550B	
480-16017-6	TP-11 (0-2)	Total/NA	Solid	3550B	
480-16017-7	TP-17 (0-2)	Total/NA	Solid	3550B	
480-16017-8	TP-9 (0-2)	Total/NA	Solid	3550B	
480-16017-9	TP-20 (0-2)	Total/NA	Solid	3550B	
480-16017-10	TP-10 (0-2)	Total/NA	Solid	3550B	
LCS 480-51361/2-A	Lab Control Sample	Total/NA	Solid	3550B	
MB 480-51361/1-A	Method Blank	Total/NA	Solid	3550B	

Analysis Batch: 51742

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16017-1 MS	TP-14 (0-2)	Total/NA	Solid	8270C	51361
480-16017-2	TP-15 (0-2)	Total/NA	Solid	8270C	51361

Analysis Batch: 51836

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16017-1	TP-14 (0-2)	Total/NA	Solid	8270C	51361
480-16017-1 MSD	TP-14 (0-2)	Total/NA	Solid	8270C	51361
480-16017-3	TP-3 (0-2)	Total/NA	Solid	8270C	51361
480-16017-4	TP-4 (0-2)	Total/NA	Solid	8270C	51361
480-16017-5	TP-5 (0-2)	Total/NA	Solid	8270C	51361
480-16017-6	TP-11 (0-2)	Total/NA	Solid	8270C	51361
480-16017-7	TP-17 (0-2)	Total/NA	Solid	8270C	51361
480-16017-8	TP-9 (0-2)	Total/NA	Solid	8270C	51361
480-16017-9	TP-20 (0-2)	Total/NA	Solid	8270C	51361
480-16017-10	TP-10 (0-2)	Total/NA	Solid	8270C	51361
MB 480-51361/1-A	Method Blank	Total/NA	Solid	8270C	51361

GC/MS Semi VOA (Continued)

Analysis Batch: 52014

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-51361/2-A	Lab Control Sample	Total/NA	Solid	8270C	51361

GC Semi VOA

Analysis Batch: 51330

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16017-1	TP-14 (0-2)	Total/NA	Solid	8082	51370
480-16017-1 MS	TP-14 (0-2)	Total/NA	Solid	8082	51370
480-16017-1 MSD	TP-14 (0-2)	Total/NA	Solid	8082	51370
480-16017-2	TP-15 (0-2)	Total/NA	Solid	8082	51370
480-16017-3	TP-3 (0-2)	Total/NA	Solid	8082	51370
480-16017-4	TP-4 (0-2)	Total/NA	Solid	8082	51370
480-16017-5	TP-5 (0-2)	Total/NA	Solid	8082	51370
480-16017-6	TP-11 (0-2)	Total/NA	Solid	8082	51370
480-16017-7	TP-17 (0-2)	Total/NA	Solid	8082	51370
480-16017-8	TP-9 (0-2)	Total/NA	Solid	8082	51370
480-16017-9	TP-20 (0-2)	Total/NA	Solid	8082	51370
480-16017-10	TP-10 (0-2)	Total/NA	Solid	8082	51370
LCS 480-51370/2-A	Lab Control Sample	Total/NA	Solid	8082	51370
MB 480-51370/1-A	Method Blank	Total/NA	Solid	8082	51370

Prep Batch: 51370

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16017-1	TP-14 (0-2)	Total/NA	Solid	3550B	
480-16017-1 MS	TP-14 (0-2)	Total/NA	Solid	3550B	
480-16017-1 MSD	TP-14 (0-2)	Total/NA	Solid	3550B	
480-16017-2	TP-15 (0-2)	Total/NA	Solid	3550B	
480-16017-3	TP-3 (0-2)	Total/NA	Solid	3550B	
480-16017-4	TP-4 (0-2)	Total/NA	Solid	3550B	
480-16017-5	TP-5 (0-2)	Total/NA	Solid	3550B	
480-16017-6	TP-11 (0-2)	Total/NA	Solid	3550B	
480-16017-7	TP-17 (0-2)	Total/NA	Solid	3550B	
480-16017-8	TP-9 (0-2)	Total/NA	Solid	3550B	
480-16017-9	TP-20 (0-2)	Total/NA	Solid	3550B	
480-16017-10	TP-10 (0-2)	Total/NA	Solid	3550B	
LCS 480-51370/2-A	Lab Control Sample	Total/NA	Solid	3550B	
MB 480-51370/1-A	Method Blank	Total/NA	Solid	3550B	

Prep Batch: 51406

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16017-1	TP-14 (0-2)	Total/NA	Solid	3550B	
480-16017-1 MS	TP-14 (0-2)	Total/NA	Solid	3550B	
480-16017-1 MSD	TP-14 (0-2)	Total/NA	Solid	3550B	
480-16017-2	TP-15 (0-2)	Total/NA	Solid	3550B	
LCS 480-51406/2-A	Lab Control Sample	Total/NA	Solid	3550B	
MB 480-51406/1-A	Method Blank	Total/NA	Solid	3550B	

Prep Batch: 51410

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16017-1	TP-14 (0-2)	Total/NA	Solid	8151A	
480-16017-1 MS	TP-14 (0-2)	Total/NA	Solid	8151A	
480-16017-1 MSD	TP-14 (0-2)	Total/NA	Solid	8151A	

GC Semi VOA (Continued)

Prep Batch: 51410 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16017-2	TP-15 (0-2)	Total/NA	Solid	8151A	
LCS 480-51410/2-A	Lab Control Sample	Total/NA	Solid	8151A	
MB 480-51410/1-A	Method Blank	Total/NA	Solid	8151A	

Analysis Batch: 51619

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16017-1	TP-14 (0-2)	Total/NA	Solid	8151A	51410
480-16017-1 MS	TP-14 (0-2)	Total/NA	Solid	8151A	51410
480-16017-1 MSD	TP-14 (0-2)	Total/NA	Solid	8151A	51410
480-16017-2	TP-15 (0-2)	Total/NA	Solid	8151A	51410
LCS 480-51410/2-A	Lab Control Sample	Total/NA	Solid	8151A	51410
MB 480-51410/1-A	Method Blank	Total/NA	Solid	8151A	51410

Analysis Batch: 51644

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16017-1	TP-14 (0-2)	Total/NA	Solid	8081A	51406
480-16017-1 MS	TP-14 (0-2)	Total/NA	Solid	8081A	51406
480-16017-1 MSD	TP-14 (0-2)	Total/NA	Solid	8081A	51406
480-16017-2	TP-15 (0-2)	Total/NA	Solid	8081A	51406
LCS 480-51406/2-A	Lab Control Sample	Total/NA	Solid	8081A	51406
MB 480-51406/1-A	Method Blank	Total/NA	Solid	8081A	51406

Metals

Prep Batch: 51352

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16017-1	TP-14 (0-2)	Total/NA	Solid	3050B	
480-16017-1 MS	TP-14 (0-2)	Total/NA	Solid	3050B	
480-16017-1 MSD	TP-14 (0-2)	Total/NA	Solid	3050B	
480-16017-2	TP-15 (0-2)	Total/NA	Solid	3050B	
480-16017-3	TP-3 (0-2)	Total/NA	Solid	3050B	
480-16017-4	TP-4 (0-2)	Total/NA	Solid	3050B	
480-16017-5	TP-5 (0-2)	Total/NA	Solid	3050B	
480-16017-6	TP-11 (0-2)	Total/NA	Solid	3050B	
480-16017-7	TP-17 (0-2)	Total/NA	Solid	3050B	
480-16017-8	TP-9 (0-2)	Total/NA	Solid	3050B	
480-16017-9	TP-20 (0-2)	Total/NA	Solid	3050B	
480-16017-10	TP-10 (0-2)	Total/NA	Solid	3050B	
LCSSRM 480-51352/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 480-51352/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 51491

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16017-1	TP-14 (0-2)	Total/NA	Solid	6010B	51352
480-16017-1 MS	TP-14 (0-2)	Total/NA	Solid	6010B	51352
480-16017-1 MSD	TP-14 (0-2)	Total/NA	Solid	6010B	51352
480-16017-2	TP-15 (0-2)	Total/NA	Solid	6010B	51352
480-16017-3	TP-3 (0-2)	Total/NA	Solid	6010B	51352
480-16017-4	TP-4 (0-2)	Total/NA	Solid	6010B	51352
480-16017-5	TP-5 (0-2)	Total/NA	Solid	6010B	51352
480-16017-6	TP-11 (0-2)	Total/NA	Solid	6010B	51352
480-16017-7	TP-17 (0-2)	Total/NA	Solid	6010B	51352

Metals (Continued)

Analysis Batch: 51491 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16017-8	TP-9 (0-2)	Total/NA	Solid	6010B	51352
480-16017-9	TP-20 (0-2)	Total/NA	Solid	6010B	51352
480-16017-10	TP-10 (0-2)	Total/NA	Solid	6010B	51352
LCSSRM 480-51352/2-A	Lab Control Sample	Total/NA	Solid	6010B	51352
MB 480-51352/1-A	Method Blank	Total/NA	Solid	6010B	51352

Prep Batch: 51511

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16017-1	TP-14 (0-2)	Total/NA	Solid	7471A	
480-16017-1 MS	TP-14 (0-2)	Total/NA	Solid	7471A	
480-16017-1 MSD	TP-14 (0-2)	Total/NA	Solid	7471A	
480-16017-2	TP-15 (0-2)	Total/NA	Solid	7471A	
480-16017-3	TP-3 (0-2)	Total/NA	Solid	7471A	
480-16017-4	TP-4 (0-2)	Total/NA	Solid	7471A	
480-16017-5	TP-5 (0-2)	Total/NA	Solid	7471A	
480-16017-6	TP-11 (0-2)	Total/NA	Solid	7471A	
480-16017-7	TP-17 (0-2)	Total/NA	Solid	7471A	
480-16017-8	TP-9 (0-2)	Total/NA	Solid	7471A	
480-16017-9	TP-20 (0-2)	Total/NA	Solid	7471A	
480-16017-10	TP-10 (0-2)	Total/NA	Solid	7471A	
LCSSRM 480-51511/2-A	Lab Control Sample	Total/NA	Solid	7471A	
MB 480-51511/1-A	Method Blank	Total/NA	Solid	7471A	

Analysis Batch: 51568

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16017-1	TP-14 (0-2)	Total/NA	Solid	7471A	51511
480-16017-1 MS	TP-14 (0-2)	Total/NA	Solid	7471A	51511
480-16017-1 MSD	TP-14 (0-2)	Total/NA	Solid	7471A	51511
480-16017-2	TP-15 (0-2)	Total/NA	Solid	7471A	51511
480-16017-3	TP-3 (0-2)	Total/NA	Solid	7471A	51511
480-16017-4	TP-4 (0-2)	Total/NA	Solid	7471A	51511
480-16017-5	TP-5 (0-2)	Total/NA	Solid	7471A	51511
480-16017-6	TP-11 (0-2)	Total/NA	Solid	7471A	51511
480-16017-7	TP-17 (0-2)	Total/NA	Solid	7471A	51511
480-16017-8	TP-9 (0-2)	Total/NA	Solid	7471A	51511
480-16017-9	TP-20 (0-2)	Total/NA	Solid	7471A	51511
480-16017-10	TP-10 (0-2)	Total/NA	Solid	7471A	51511
LCSSRM 480-51511/2-A	Lab Control Sample	Total/NA	Solid	7471A	51511
MB 480-51511/1-A	Method Blank	Total/NA	Solid	7471A	51511

Analysis Batch: 51641

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16017-3	TP-3 (0-2)	Total/NA	Solid	6010B	51352

General Chemistry

Analysis Batch: 51392

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16017-1	TP-14 (0-2)	Total/NA	Solid	Moisture	
480-16017-1 MS	TP-14 (0-2)	Total/NA	Solid	Moisture	
480-16017-1 MSD	TP-14 (0-2)	Total/NA	Solid	Moisture	
480-16017-2	TP-15 (0-2)	Total/NA	Solid	Moisture	

General Chemistry (Continued)

Analysis Batch: 51392 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16017-4	TP-4 (0-2)	Total/NA	Solid	Moisture	
480-16017-5	TP-5 (0-2)	Total/NA	Solid	Moisture	
480-16017-6	TP-11 (0-2)	Total/NA	Solid	Moisture	
480-16017-7	TP-17 (0-2)	Total/NA	Solid	Moisture	
480-16017-8	TP-9 (0-2)	Total/NA	Solid	Moisture	
480-16017-9	TP-20 (0-2)	Total/NA	Solid	Moisture	
480-16017-10	TP-10 (0-2)	Total/NA	Solid	Moisture	

Prep Batch: 51464

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16017-1	TP-14 (0-2)	Total/NA	Solid	9012A	
480-16017-1 MS	TP-14 (0-2)	Total/NA	Solid	9012A	
480-16017-1 MSD	TP-14 (0-2)	Total/NA	Solid	9012A	
480-16017-2	TP-15 (0-2)	Total/NA	Solid	9012A	
480-16017-2 DU	TP-15 (0-2)	Total/NA	Solid	9012A	
LCS 480-51464/2-A	Lab Control Sample	Total/NA	Solid	9012A	
MB 480-51464/1-A	Method Blank	Total/NA	Solid	9012A	

Analysis Batch: 51530

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16017-3	TP-3 (0-2)	Total/NA	Solid	Moisture	

Analysis Batch: 51551

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16017-1	TP-14 (0-2)	Total/NA	Solid	9012A	51464
480-16017-1 MS	TP-14 (0-2)	Total/NA	Solid	9012A	51464
480-16017-1 MSD	TP-14 (0-2)	Total/NA	Solid	9012A	51464
480-16017-2	TP-15 (0-2)	Total/NA	Solid	9012A	51464
480-16017-2 DU	TP-15 (0-2)	Total/NA	Solid	9012A	51464
LCS 480-51464/2-A	Lab Control Sample	Total/NA	Solid	9012A	51464
MB 480-51464/1-A	Method Blank	Total/NA	Solid	9012A	51464

Lab Chronicle

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16017-1

Client Sample ID: TP-14 (0-2)

Lab Sample ID: 480-16017-1

Date Collected: 02/07/12 09:15

Matrix: Solid

Date Received: 02/09/12 13:40

Percent Solids: 86.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	51456	02/14/12 01:00	JMB	TAL BUF
Total/NA	Prep	3550B			51361	02/13/12 09:11	CM	TAL BUF
Total/NA	Analysis	8270C		10	51836	02/16/12 14:35	RMM	TAL BUF
Total/NA	Prep	3550B			51370	02/13/12 09:41	CM	TAL BUF
Total/NA	Analysis	8082		1	51330	02/13/12 19:38	JM	TAL BUF
Total/NA	Prep	8151A			51410	02/13/12 14:11	CM	TAL BUF
Total/NA	Analysis	8151A		1	51619	02/15/12 20:10	MN	TAL BUF
Total/NA	Prep	3550B			51406	02/13/12 13:54	CM	TAL BUF
Total/NA	Analysis	8081A		100	51644	02/15/12 14:16	LW	TAL BUF
Total/NA	Prep	3050B			51352	02/13/12 10:00	SS	TAL BUF
Total/NA	Analysis	6010B		1	51491	02/13/12 19:29	AH	TAL BUF
Total/NA	Prep	7471A			51511	02/14/12 11:40	MM	TAL BUF
Total/NA	Analysis	7471A		1	51568	02/14/12 13:30	MM	TAL BUF
Total/NA	Analysis	Moisture		1	51392	02/13/12 11:40	ZR	TAL BUF
Total/NA	Prep	9012A			51464	02/13/12 17:00	ML	TAL BUF
Total/NA	Analysis	9012A		1	51551	02/14/12 12:54	JS	TAL BUF

Client Sample ID: TP-15 (0-2)

Lab Sample ID: 480-16017-2

Date Collected: 02/08/12 12:10

Matrix: Solid

Date Received: 02/09/12 13:40

Percent Solids: 82.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	51456	02/14/12 02:16	JMB	TAL BUF
Total/NA	Prep	3550B			51361	02/13/12 09:11	CM	TAL BUF
Total/NA	Analysis	8270C		10	51742	02/16/12 02:41	RMM	TAL BUF
Total/NA	Prep	3550B			51370	02/13/12 09:41	CM	TAL BUF
Total/NA	Analysis	8082		1	51330	02/13/12 19:52	JM	TAL BUF
Total/NA	Prep	8151A			51410	02/13/12 14:11	CM	TAL BUF
Total/NA	Analysis	8151A		1	51619	02/15/12 21:09	MN	TAL BUF
Total/NA	Prep	3550B			51406	02/13/12 13:54	CM	TAL BUF
Total/NA	Analysis	8081A		100	51644	02/15/12 14:57	LW	TAL BUF
Total/NA	Prep	3050B			51352	02/13/12 10:00	SS	TAL BUF
Total/NA	Analysis	6010B		1	51491	02/13/12 19:40	AH	TAL BUF
Total/NA	Prep	7471A			51511	02/14/12 11:40	MM	TAL BUF
Total/NA	Analysis	7471A		1	51568	02/14/12 13:41	MM	TAL BUF
Total/NA	Analysis	Moisture		1	51392	02/13/12 11:40	ZR	TAL BUF
Total/NA	Prep	9012A			51464	02/13/12 17:00	ML	TAL BUF
Total/NA	Analysis	9012A		1	51551	02/14/12 12:57	JS	TAL BUF

Lab Chronicle

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16017-1

Client Sample ID: TP-3 (0-2)

Lab Sample ID: 480-16017-3

Date Collected: 02/07/12 16:10
Matrix: Solid
Date Received: 02/09/12 13:40
Percent Solids: 88.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	51456	02/14/12 02:41	JMB	TAL BUF
Total/NA	Prep	3550B			51361	02/13/12 09:11	CM	TAL BUF
Total/NA	Analysis	8270C		1	51836	02/16/12 14:58	RMM	TAL BUF
Total/NA	Prep	3550B			51370	02/13/12 09:41	CM	TAL BUF
Total/NA	Analysis	8082		1	51330	02/13/12 20:07	JM	TAL BUF
Total/NA	Prep	3050B			51352	02/13/12 10:00	SS	TAL BUF
Total/NA	Analysis	6010B		1	51491	02/13/12 19:43	AH	TAL BUF
Total/NA	Prep	7471A			51511	02/14/12 11:40	MM	TAL BUF
Total/NA	Analysis	7471A		1	51568	02/14/12 13:43	MM	TAL BUF
Total/NA	Analysis	6010B		5	51641	02/14/12 17:04	AH	TAL BUF
Total/NA	Analysis	Moisture		1	51530	02/14/12 11:42	ZLR	TAL BUF

Client Sample ID: TP-4 (0-2)

Lab Sample ID: 480-16017-4

Date Collected: 02/07/12 12:45
Matrix: Solid
Date Received: 02/09/12 13:40
Percent Solids: 83.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	51456	02/14/12 03:07	JMB	TAL BUF
Total/NA	Prep	3550B			51361	02/13/12 09:11	CM	TAL BUF
Total/NA	Analysis	8270C		1	51836	02/16/12 15:22	RMM	TAL BUF
Total/NA	Prep	3550B			51370	02/13/12 09:41	CM	TAL BUF
Total/NA	Analysis	8082		1	51330	02/13/12 20:22	JM	TAL BUF
Total/NA	Prep	3050B			51352	02/13/12 10:00	SS	TAL BUF
Total/NA	Analysis	6010B		1	51491	02/13/12 19:45	AH	TAL BUF
Total/NA	Prep	7471A			51511	02/14/12 11:40	MM	TAL BUF
Total/NA	Analysis	7471A		1	51568	02/14/12 13:45	MM	TAL BUF
Total/NA	Analysis	Moisture		1	51392	02/13/12 11:40	ZR	TAL BUF

Client Sample ID: TP-5 (0-2)

Lab Sample ID: 480-16017-5

Date Collected: 02/07/12 11:45
Matrix: Solid
Date Received: 02/09/12 13:40
Percent Solids: 88.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	51456	02/14/12 03:32	JMB	TAL BUF
Total/NA	Prep	3550B			51361	02/13/12 09:11	CM	TAL BUF
Total/NA	Analysis	8270C		10	51836	02/16/12 15:45	RMM	TAL BUF
Total/NA	Prep	3550B			51370	02/13/12 09:41	CM	TAL BUF
Total/NA	Analysis	8082		1	51330	02/13/12 20:37	JM	TAL BUF
Total/NA	Prep	3050B			51352	02/13/12 10:00	SS	TAL BUF
Total/NA	Analysis	6010B		1	51491	02/13/12 19:52	AH	TAL BUF
Total/NA	Prep	7471A			51511	02/14/12 11:40	MM	TAL BUF
Total/NA	Analysis	7471A		1	51568	02/14/12 13:46	MM	TAL BUF
Total/NA	Analysis	Moisture		1	51392	02/13/12 11:40	ZR	TAL BUF

Client Sample ID: TP-11 (0-2)

Lab Sample ID: 480-16017-6

Date Collected: 02/07/12 11:05
Matrix: Solid
Date Received: 02/09/12 13:40
Percent Solids: 83.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	51456	02/14/12 03:58	JMB	TAL BUF
Total/NA	Prep	3550B			51361	02/13/12 09:11	CM	TAL BUF
Total/NA	Analysis	8270C		1	51836	02/16/12 16:09	RMM	TAL BUF
Total/NA	Prep	3550B			51370	02/13/12 09:41	CM	TAL BUF
Total/NA	Analysis	8082		1	51330	02/13/12 20:52	JM	TAL BUF
Total/NA	Prep	3050B			51352	02/13/12 10:00	SS	TAL BUF
Total/NA	Analysis	6010B		1	51491	02/13/12 19:54	AH	TAL BUF
Total/NA	Prep	7471A			51511	02/14/12 11:40	MM	TAL BUF
Total/NA	Analysis	7471A		1	51568	02/14/12 13:48	MM	TAL BUF
Total/NA	Analysis	Moisture		1	51392	02/13/12 11:40	ZR	TAL BUF

Client Sample ID: TP-17 (0-2)

Lab Sample ID: 480-16017-7

Date Collected: 02/07/12 14:35
Matrix: Solid
Date Received: 02/09/12 13:40
Percent Solids: 86.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	51456	02/14/12 04:23	JMB	TAL BUF
Total/NA	Prep	3550B			51361	02/13/12 09:11	CM	TAL BUF
Total/NA	Analysis	8270C		10	51836	02/16/12 16:32	RMM	TAL BUF
Total/NA	Prep	3550B			51370	02/13/12 09:41	CM	TAL BUF
Total/NA	Analysis	8082		1	51330	02/13/12 21:06	JM	TAL BUF
Total/NA	Prep	3050B			51352	02/13/12 10:00	SS	TAL BUF
Total/NA	Analysis	6010B		1	51491	02/13/12 19:56	AH	TAL BUF
Total/NA	Prep	7471A			51511	02/14/12 11:40	MM	TAL BUF
Total/NA	Analysis	7471A		1	51568	02/14/12 13:50	MM	TAL BUF
Total/NA	Analysis	Moisture		1	51392	02/13/12 11:40	ZR	TAL BUF

Client Sample ID: TP-9 (0-2)

Lab Sample ID: 480-16017-8

Date Collected: 02/08/12 12:45
Matrix: Solid
Date Received: 02/09/12 13:40
Percent Solids: 66.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	51456	02/14/12 04:49	JMB	TAL BUF
Total/NA	Prep	3550B			51361	02/13/12 09:11	CM	TAL BUF
Total/NA	Analysis	8270C		1	51836	02/16/12 16:55	RMM	TAL BUF
Total/NA	Prep	3550B			51370	02/13/12 09:41	CM	TAL BUF
Total/NA	Analysis	8082		1	51330	02/13/12 21:21	JM	TAL BUF
Total/NA	Prep	3050B			51352	02/13/12 10:00	SS	TAL BUF
Total/NA	Analysis	6010B		1	51491	02/13/12 19:58	AH	TAL BUF
Total/NA	Prep	7471A			51511	02/14/12 11:40	MM	TAL BUF
Total/NA	Analysis	7471A		1	51568	02/14/12 13:52	MM	TAL BUF
Total/NA	Analysis	Moisture		1	51392	02/13/12 11:40	ZR	TAL BUF

Lab Chronicle

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16017-1

Client Sample ID: TP-20 (0-2)

Lab Sample ID: 480-16017-9

Date Collected: 02/08/12 11:15
Matrix: Solid
Date Received: 02/09/12 13:40
Percent Solids: 87.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	51456	02/14/12 05:14	JMB	TAL BUF
Total/NA	Prep	3550B			51361	02/13/12 09:11	CM	TAL BUF
Total/NA	Analysis	8270C		1	51836	02/16/12 17:19	RMM	TAL BUF
Total/NA	Prep	3550B			51370	02/13/12 09:41	CM	TAL BUF
Total/NA	Analysis	8082		1	51330	02/13/12 22:05	JM	TAL BUF
Total/NA	Prep	3050B			51352	02/13/12 10:00	SS	TAL BUF
Total/NA	Analysis	6010B		1	51491	02/13/12 20:01	AH	TAL BUF
Total/NA	Prep	7471A			51511	02/14/12 11:40	MM	TAL BUF
Total/NA	Analysis	7471A		1	51568	02/14/12 13:59	MM	TAL BUF
Total/NA	Analysis	Moisture		1	51392	02/13/12 11:40	ZR	TAL BUF

Client Sample ID: TP-10 (0-2)

Lab Sample ID: 480-16017-10

Date Collected: 02/08/12 16:30
Matrix: Solid
Date Received: 02/09/12 13:40
Percent Solids: 85.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	51456	02/14/12 05:39	JMB	TAL BUF
Total/NA	Prep	3550B			51361	02/13/12 09:11	CM	TAL BUF
Total/NA	Analysis	8270C		1	51836	02/16/12 17:42	RMM	TAL BUF
Total/NA	Prep	3550B			51370	02/13/12 09:41	CM	TAL BUF
Total/NA	Analysis	8082		1	51330	02/13/12 22:20	JM	TAL BUF
Total/NA	Prep	3050B			51352	02/13/12 10:00	SS	TAL BUF
Total/NA	Analysis	6010B		1	51491	02/13/12 20:03	AH	TAL BUF
Total/NA	Prep	7471A			51511	02/14/12 11:40	MM	TAL BUF
Total/NA	Analysis	7471A		1	51568	02/14/12 14:00	MM	TAL BUF
Total/NA	Analysis	Moisture		1	51392	02/13/12 11:40	ZR	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Certification Summary

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16017-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Buffalo	Arkansas	State Program	6	88-0686
TestAmerica Buffalo	California	NELAC	9	1169CA
TestAmerica Buffalo	Connecticut	State Program	1	PH-0568
TestAmerica Buffalo	Florida	NELAC	4	E87672
TestAmerica Buffalo	Georgia	Georgia EPD	4	N/A
TestAmerica Buffalo	Georgia	State Program	4	956
TestAmerica Buffalo	Illinois	NELAC	5	100325 / 200003
TestAmerica Buffalo	Iowa	State Program	7	374
TestAmerica Buffalo	Kansas	NELAC	7	E-10187
TestAmerica Buffalo	Kentucky	Kentucky UST	4	30
TestAmerica Buffalo	Kentucky	State Program	4	90029
TestAmerica Buffalo	Louisiana	NELAC	6	02031
TestAmerica Buffalo	Maine	State Program	1	NY0044
TestAmerica Buffalo	Maryland	State Program	3	294
TestAmerica Buffalo	Massachusetts	State Program	1	M-NY044
TestAmerica Buffalo	Michigan	State Program	5	9937
TestAmerica Buffalo	Minnesota	NELAC	5	036-999-337
TestAmerica Buffalo	New Hampshire	NELAC	1	2337
TestAmerica Buffalo	New Hampshire	NELAC	1	68-00281
TestAmerica Buffalo	New Jersey	NELAC	2	NY455
TestAmerica Buffalo	New York	NELAC	2	10026
TestAmerica Buffalo	North Dakota	State Program	8	R-176
TestAmerica Buffalo	Oklahoma	State Program	6	9421
TestAmerica Buffalo	Oregon	NELAC	10	NY200003
TestAmerica Buffalo	Pennsylvania	NELAC	3	68-00281
TestAmerica Buffalo	Tennessee	State Program	4	TN02970
TestAmerica Buffalo	Texas	NELAC	6	T104704412-08-TX
TestAmerica Buffalo	USDA	USDA		P330-08-00242
TestAmerica Buffalo	Virginia	NELAC Secondary AB	3	460185
TestAmerica Buffalo	Virginia	State Program	3	278
TestAmerica Buffalo	Washington	State Program	10	C1677
TestAmerica Buffalo	Wisconsin	State Program	5	998310390

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method Summary

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16017-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL BUF
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL BUF
8081A	Organochlorine Pesticides (GC)	SW846	TAL BUF
8082	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL BUF
8151A	Herbicides (GC)	SW846	TAL BUF
6010B	Metals (ICP)	SW846	TAL BUF
7471A	Mercury (CVAA)	SW846	TAL BUF
9012A	Cyanide, Total and/or Amenable	SW846	TAL BUF
Moisture	Percent Moisture	EPA	TAL BUF

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16017-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-16017-1	TP-14 (0-2)	Solid	02/07/12 09:15	02/09/12 13:40
480-16017-2	TP-15 (0-2)	Solid	02/08/12 12:10	02/09/12 13:40
480-16017-3	TP-3 (0-2)	Solid	02/07/12 16:10	02/09/12 13:40
480-16017-4	TP-4 (0-2)	Solid	02/07/12 12:45	02/09/12 13:40
480-16017-5	TP-5 (0-2)	Solid	02/07/12 11:45	02/09/12 13:40
480-16017-6	TP-11 (0-2)	Solid	02/07/12 11:05	02/09/12 13:40
480-16017-7	TP-17 (0-2)	Solid	02/07/12 14:35	02/09/12 13:40
480-16017-8	TP-9 (0-2)	Solid	02/08/12 12:45	02/09/12 13:40
480-16017-9	TP-20 (0-2)	Solid	02/08/12 11:15	02/09/12 13:40
480-16017-10	TP-10 (0-2)	Solid	02/08/12 16:30	02/09/12 13:40

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

TAL-4124 (1007)

Client: Turnkey Environmental	Project Manager: Bryan Hunn	Date: 2/8/12	Chain of Custody Number: 149955
Address: 2558 Hamburg Turnpike	Telephone Number (Area Code)/Fax Number: (716) 856-0635	Lab Number:	Page 1 of 1
City: Lackawanna / State: NY / Zip Code: 14218	Site Contact: T. Bohnet	Lab Contact: B. Fisch	
Project Name and Location (State): South Buffalo Charter School	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.			

Analysis (Attach list if more space is needed)

Special Instructions/ Conditions of Receipt

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	TCL VOC 8260	SVOC BN only 8270	SVOC BNA 8270	TCL SVOC	RCRA METALS	TCL PCBs	TCL Herb	TCL PEST	T. CN				
TP-14 (0-2) MS/MSD	2/7/12	915				X	X						X		X		X	X	X	X	X				
TP-15 (0-2)	2/8/12	1210				X	X						X		X		X	X	X	X	X				
TP-3 (0-2)	2/7/12	1610				X	X						X	X			X	X							
TP-4 (0-2)	↓	1245				X	X						X	X			X	X							
TP-5 (0-2)		1145				X	X						X	X			X	X							
TP-11 (0-2)		1105				X	X						X	X			X	X							
TP-17 (0-2)		1435				X	X						X	X			X	X							
TP-9 (0-2)	2/8/12	1245				X	X						X	X			X	X							
TP-20 (0-2)	↓	1115				X	X						X	X			X	X							
TP-10 (0-2)		1630				X	X						X	X			X	X							

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other STD

QC Requirements (Specify) CAT B

	Date	Time		Date	Time
1. Relinquished By	2/9/12	0800	1. Received By	02-09-12	12:20
2. Relinquished By	02-09-12	13:40	2. Received By	2/9/12	1340
3. Relinquished By			3. Received By		

Comments 1.8 #2

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Login Sample Receipt Checklist

Client: Turnkey Environmental Restoration, LLC

Job Number: 480-16017-1

Login Number: 16017

List Source: TestAmerica Buffalo

List Number: 1

Creator: Robitaille, Zach L

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.8 #2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	TURNKEY
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

APPENDIX B-2

SUBSURFACE SOIL/FILL

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-16567-1
Client Project/Site: Turnkey - 154 S. Ogden St. site

For:
Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Suite 300
Lackawanna, New York 14218

Attn: Mr. Tom Forbes

Authorized for release by:
2/28/2012 4:42:43 PM

Brian Fischer
Project Manager II
brian.fischer@testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

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Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16567-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 480-16567-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-16567-1

Receipt
All samples were received in good condition within temperature requirements.

Metals
No analytical or quality issues were noted.

Detection Summary

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16567-1

Client Sample ID: TP-3 (11-13) — Lab Sample ID: 480-16567-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	4.8		2.6		mg/Kg	1	☼	6010B	Total/NA
Lead	10.1		1.3		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: TP-4 (6-15) — Lab Sample ID: 480-16567-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	5.7		2.6		mg/Kg	1	☼	6010B	Total/NA
Lead	190		1.3		mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: TP-17 (6-17) — Lab Sample ID: 480-16567-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	8.4		3.0		mg/Kg	1	☼	6010B	Total/NA
Lead	2400		1.5		mg/Kg	1	☼	6010B	Total/NA

Client Sample Results

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16567-1

Client Sample ID: TP-3 (11-13)
Date Collected: 02/07/12 16:00
Date Received: 02/09/12 13:40

Lab Sample ID: 480-16567-1
Matrix: Solid
Percent Solids: 79.6

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.8		2.6		mg/Kg	☼	02/27/12 11:45	02/28/12 13:29	1
Lead	10.1		1.3		mg/Kg	☼	02/27/12 11:45	02/28/12 13:29	1

Client Sample Results

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16567-1

Client Sample ID: TP-4 (6-15)
Date Collected: 02/07/12 12:30
Date Received: 02/09/12 13:40

Lab Sample ID: 480-16567-2
Matrix: Solid
Percent Solids: 77.5

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.7		2.6		mg/Kg	☼	02/27/12 11:45	02/28/12 13:32	1
Lead	190		1.3		mg/Kg	☼	02/27/12 11:45	02/28/12 13:32	1

Client Sample Results

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16567-1

Client Sample ID: TP-17 (6-17)
Date Collected: 02/07/12 14:40
Date Received: 02/09/12 13:40

Lab Sample ID: 480-16567-3
Matrix: Solid
Percent Solids: 66.9

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.4		3.0		mg/Kg	☼	02/27/12 11:45	02/28/12 13:39	1
Lead	2400		1.5		mg/Kg	☼	02/27/12 11:45	02/28/12 13:39	1

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16567-1

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 480-53030/1-A
Matrix: Solid
Analysis Batch: 53144

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 53030

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		1.9		mg/Kg		02/27/12 11:45	02/27/12 20:11	1
Lead	ND		0.97		mg/Kg		02/27/12 11:45	02/27/12 20:11	1

Lab Sample ID: LCSSRM 480-53030/2-A
Matrix: Solid
Analysis Batch: 53144

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 53030

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	109	104.0		mg/Kg		96	70 - 134
Lead	76.1	76.55		mg/Kg		101	69 - 131

QC Association Summary

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16567-1

Metals

Prep Batch: 53030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16567-1	TP-3 (11-13)	Total/NA	Solid	3050B	
480-16567-2	TP-4 (6-15)	Total/NA	Solid	3050B	
480-16567-3	TP-17 (6-17)	Total/NA	Solid	3050B	
LCSSRM 480-53030/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 480-53030/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 53144

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSSRM 480-53030/2-A	Lab Control Sample	Total/NA	Solid	6010B	53030
MB 480-53030/1-A	Method Blank	Total/NA	Solid	6010B	53030

Analysis Batch: 53201

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16567-1	TP-3 (11-13)	Total/NA	Solid	6010B	53030
480-16567-2	TP-4 (6-15)	Total/NA	Solid	6010B	53030
480-16567-3	TP-17 (6-17)	Total/NA	Solid	6010B	53030

General Chemistry

Analysis Batch: 53034

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16567-1	TP-3 (11-13)	Total/NA	Solid	Moisture	
480-16567-2	TP-4 (6-15)	Total/NA	Solid	Moisture	
480-16567-3	TP-17 (6-17)	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16567-1

Client Sample ID: TP-3 (11-13)

Lab Sample ID: 480-16567-1

Date Collected: 02/07/12 16:00
Matrix: Solid
Date Received: 02/09/12 13:40
Percent Solids: 79.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			53030	02/27/12 11:45	SS	TAL BUF
Total/NA	Analysis	6010B		1	53201	02/28/12 13:29	LH	TAL BUF
Total/NA	Analysis	Moisture		1	53034	02/27/12 12:00	ZR	TAL BUF

Client Sample ID: TP-4 (6-15)

Lab Sample ID: 480-16567-2

Date Collected: 02/07/12 12:30
Matrix: Solid
Date Received: 02/09/12 13:40
Percent Solids: 77.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			53030	02/27/12 11:45	SS	TAL BUF
Total/NA	Analysis	6010B		1	53201	02/28/12 13:32	LH	TAL BUF
Total/NA	Analysis	Moisture		1	53034	02/27/12 12:00	ZR	TAL BUF

Client Sample ID: TP-17 (6-17)

Lab Sample ID: 480-16567-3

Date Collected: 02/07/12 14:40
Matrix: Solid
Date Received: 02/09/12 13:40
Percent Solids: 66.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			53030	02/27/12 11:45	SS	TAL BUF
Total/NA	Analysis	6010B		1	53201	02/28/12 13:39	LH	TAL BUF
Total/NA	Analysis	Moisture		1	53034	02/27/12 12:00	ZR	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Certification Summary

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16567-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Buffalo	Arkansas DEQ	State Program	6	88-0686
TestAmerica Buffalo	California	NELAC	9	1169CA
TestAmerica Buffalo	Connecticut	State Program	1	PH-0568
TestAmerica Buffalo	Florida	NELAC	4	E87672
TestAmerica Buffalo	Georgia EPD	State Program	4	956
TestAmerica Buffalo	Georgia EPD	State Program	4	N/A
TestAmerica Buffalo	Illinois	NELAC	5	100325 / 200003
TestAmerica Buffalo	Iowa	State Program	7	374
TestAmerica Buffalo	Kansas	NELAC	7	E-10187
TestAmerica Buffalo	Kentucky	State Program	4	90029
TestAmerica Buffalo	Kentucky - UST	State Program	4	30
TestAmerica Buffalo	Louisiana	NELAC	6	02031
TestAmerica Buffalo	Maine	State Program	1	NY0044
TestAmerica Buffalo	Maryland	State Program	3	294
TestAmerica Buffalo	Massachusetts	State Program	1	M-NY044
TestAmerica Buffalo	Michigan	State Program	5	9937
TestAmerica Buffalo	Minnesota	NELAC	5	036-999-337
TestAmerica Buffalo	New Hampshire	NELAC	1	2337
TestAmerica Buffalo	New Hampshire	NELAC	1	68-00281
TestAmerica Buffalo	New Jersey	NELAC	2	NY455
TestAmerica Buffalo	New York	NELAC	2	10026
TestAmerica Buffalo	North Dakota	State Program	8	R-176
TestAmerica Buffalo	Oklahoma	State Program	6	9421
TestAmerica Buffalo	Oregon	NELAC	10	NY200003
TestAmerica Buffalo	Pennsylvania	NELAC	3	68-00281
TestAmerica Buffalo	Tennessee	State Program	4	TN02970
TestAmerica Buffalo	Texas	NELAC	6	T104704412-08-TX
TestAmerica Buffalo	USDA	USDA		P330-08-00242
TestAmerica Buffalo	Virginia	NELAC Secondary AB	3	460185
TestAmerica Buffalo	Virginia	State Program	3	278
TestAmerica Buffalo	Washington	State Program	10	C1677
TestAmerica Buffalo	West Virginia DEP	State Program	3	252
TestAmerica Buffalo	Wisconsin	State Program	5	998310390

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method Summary

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16567-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL BUF
Moisture	Percent Moisture	EPA	TAL BUF

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16567-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-16567-1	TP-3 (11-13)	Solid	02/07/12 16:00	02/09/12 13:40
480-16567-2	TP-4 (6-15)	Solid	02/07/12 12:30	02/09/12 13:40
480-16567-3	TP-17 (6-17)	Solid	02/07/12 14:40	02/09/12 13:40

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client: Turnkey Environmental Recs	Project Manager: Bryan Hann	Date: 2/8/12	Chain of Custody Number: 149958
Address: 2558 Hamburg Turnpike	Telephone Number (Area Code)/Fax Number: (716) 856-0635	Lab Number:	Page 3 of 3
City: Lackawanna State: NY Zip Code: 14218	Site Contact: T. Belward	Lab Contact: B. Fisch	
Project Name and Location (State): South Buffalo Charter School	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis (Attach list if more space is needed): TCL VOC 8260	TCL BN ONLY 8270	TCL SVOA 8270	RCRA METALS	TCL PCBs	Special Instructions/ Conditions of Receipt
TP-13 (0-2)	2/7/12	1330				X	X						X	X		X	X	Hold
TP-13 (7-9)		1325				X	X						X		X	X		Hold
TP-04 (6-15)		1230				X	X						X	X		X	X	Hold
TP-04 (15-16)		1221				X	X						X		X	X		Hold
TP-05 (13-14)		1150				X	X						X		X	X		Hold
TP-11 (7-9)		1105				X	X						X		X	X		Hold
TP-12 (0-2)		1000				X	X						X	X		X	X	Hold
TP-14 (8-10)		910				X	X						X		X	X		Hold
TP-12 (11-13)		1010				X	X						X		X	X		Hold

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other STD

QC Requirements (Specify): CAT B

	Date	Time		Date	Time
1. Relinquished By	2/8/12	0800	1. Received By	02-09-12	12:20
2. Relinquished By	02-09-12	13:40	2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
Turnkey Environmental	Bryan Hunn	2/8/12	149957
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page** 2 of 3
2558 Hamburg Turnpike	(716) 856-0635		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
Lackawanna / NY / 14218	T. Edwards	B. Fisher	
Project Name and Location (State)	**Carrier/Waybill Number**		
South Buffalo Church			
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: TCL VOC 8260	BN ONLY 8270	TCL 8270	RCRA METALS	TCL PCBs	Special Instructions/ Conditions of Receipt
TP-2 (6-11)	2/7/12	1645				X							X	X	■	X	X	Hold
TP-7 (8-10)	2/8/12	1420				X							X		X	X		Hold
TP-7 (0-2)	↓	1430				X							X	X		X	X	Hold
TP-2 (0-2)	12/7/12	1640				X							X	X		X	X	Hold
TP-2 (11-13)		1650				X							X		X	X		Hold
TP-3 (6-11)		1605				X							X	X		X	X	Hold
TP-3 (11-13)		1600				X							X		X	X		Hold
TP-3 (14-15)		1615				X							X		X			Hold
TP-18 (0-2)		1455				X							X	X		X	X	Hold
TP-18 (2-4)		1450				X							X	■	X	X		Hold
TP-17 (6-17)		1440				X							X	X		X	X	Hold
TP-05 (13-14)	↓	1150				X							X	·	X	X		Hold

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other STD

QC Requirements (Specify)
CAT B

	Date	Time
1. Relinquished By	2/9/12	
2. Relinquished By	02-09-12	13:40
3. Relinquished By		
1. Received By	02-09-12	12:20
2. Received By		
3. Received By		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Login Sample Receipt Checklist

Client: Turnkey Environmental Restoration, LLC

Job Number: 480-16567-1

Login Number: 16567

List Source: TestAmerica Buffalo

List Number: 1

Creator: Janish, Carl

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	TK
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

APPENDIX B-3

GROUNDWATER

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-16020-1
Client Project/Site: Turnkey - 154 S. Ogden St. site

For:
Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Suite 300
Lackawanna, New York 14218

Attn: Mr. Bryan Hann

Authorized for release by:
2/24/2012 10:44:39 AM

Brian Fischer
Project Manager II
brian.fischer@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16020-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD exceeds the control limits
B	Compound was found in the blank and sample.
E	Result exceeded calibration range.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 480-16020-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-16020-1

Comments
No additional comments.

Receipt
All samples were received in good condition within temperature requirements.

GC/MS VOA
No analytical or quality issues were noted.

GC/MS Semi VOA
Method(s) 8270C: The method blank for preparation batch 480-51566 contained Di-n-butyl phthalate above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method(s) 8270C: The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 480-51566 exceeded control limits for the several analytes. These analytes were biased high in the LCS/LCSD and were not detected in the associated samples; therefore, the data have been reported.

No analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

Detection Summary

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16020-1

Client Sample ID: TMW-03 — Lab Sample ID: 480-16020-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	0.42	J	4.7	0.39	ug/L	1		8270C	Total/NA
Acetophenone	13		4.7	0.51	ug/L	1		8270C	Total/NA
Di-n-butyl phthalate	0.39	J B	4.7	0.29	ug/L	1		8270C	Total/NA
Naphthalene	21		4.7	0.72	ug/L	1		8270C	Total/NA
Pyrene	0.36	J	4.7	0.32	ug/L	1		8270C	Total/NA

Client Sample ID: TMW-01 — Lab Sample ID: 480-16024-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	1.3	J	10	1.3	ug/L	1		8260B	Total/NA
Acetone	4.2	J	10	3.0	ug/L	1		8260B	Total/NA
Methylene Chloride	1.3		1.0	0.44	ug/L	1		8260B	Total/NA

Client Sample ID: TMW-02 — Lab Sample ID: 480-16024-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichlorobenzene	2.1		1.0	0.79	ug/L	1		8260B	Total/NA
Chlorobenzene	6.3		1.0	0.75	ug/L	1		8260B	Total/NA
Methylene Chloride	0.59	J	1.0	0.44	ug/L	1		8260B	Total/NA

Client Sample ID: TMW-03 — Lab Sample ID: 480-16024-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	1.3	J	10	1.3	ug/L	1		8260B	Total/NA
Benzene	1.2		1.0	0.41	ug/L	1		8260B	Total/NA
Chlorobenzene	0.78	J	1.0	0.75	ug/L	1		8260B	Total/NA
Cyclohexane	3.2		1.0	0.18	ug/L	1		8260B	Total/NA
Ethylbenzene	1.6		1.0	0.74	ug/L	1		8260B	Total/NA
Isopropylbenzene	25		1.0	0.79	ug/L	1		8260B	Total/NA
Methylcyclohexane	11		1.0	0.16	ug/L	1		8260B	Total/NA
Toluene	0.54	J	1.0	0.51	ug/L	1		8260B	Total/NA
Xylenes, Total	6.0		2.0	0.66	ug/L	1		8260B	Total/NA

Client Sample ID: TRIP BLANK — Lab Sample ID: 480-16024-4

No Detections

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16020-1

Client Sample ID: TMW-03
Date Collected: 02/10/12 09:15
Date Received: 02/10/12 13:25

Lab Sample ID: 480-16020-1
Matrix: Water

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		4.7	0.62	ug/L		02/14/12 14:16	02/15/12 20:13	1
bis (2-chloroisopropyl) ether	ND		4.7	0.49	ug/L		02/14/12 14:16	02/15/12 20:13	1
2,4,5-Trichlorophenol	ND		4.7	0.45	ug/L		02/14/12 14:16	02/15/12 20:13	1
2,4,6-Trichlorophenol	ND		4.7	0.58	ug/L		02/14/12 14:16	02/15/12 20:13	1
2,4-Dichlorophenol	ND		4.7	0.48	ug/L		02/14/12 14:16	02/15/12 20:13	1
2,4-Dimethylphenol	ND		4.7	0.47	ug/L		02/14/12 14:16	02/15/12 20:13	1
2,4-Dinitrophenol	ND		9.4	2.1	ug/L		02/14/12 14:16	02/15/12 20:13	1
2,4-Dinitrotoluene	ND		4.7	0.42	ug/L		02/14/12 14:16	02/15/12 20:13	1
2,6-Dinitrotoluene	ND		4.7	0.38	ug/L		02/14/12 14:16	02/15/12 20:13	1
2-Chloronaphthalene	ND		4.7	0.43	ug/L		02/14/12 14:16	02/15/12 20:13	1
2-Chlorophenol	ND		4.7	0.50	ug/L		02/14/12 14:16	02/15/12 20:13	1
2-Methylnaphthalene	ND		4.7	0.57	ug/L		02/14/12 14:16	02/15/12 20:13	1
2-Methylphenol	ND		4.7	0.38	ug/L		02/14/12 14:16	02/15/12 20:13	1
2-Nitroaniline	ND		9.4	0.40	ug/L		02/14/12 14:16	02/15/12 20:13	1
2-Nitrophenol	ND		4.7	0.45	ug/L		02/14/12 14:16	02/15/12 20:13	1
3,3'-Dichlorobenzidine	ND		4.7	0.38	ug/L		02/14/12 14:16	02/15/12 20:13	1
3-Nitroaniline	ND		9.4	0.45	ug/L		02/14/12 14:16	02/15/12 20:13	1
4,6-Dinitro-2-methylphenol	ND		9.4	2.1	ug/L		02/14/12 14:16	02/15/12 20:13	1
4-Bromophenyl phenyl ether	ND		4.7	0.42	ug/L		02/14/12 14:16	02/15/12 20:13	1
4-Chloro-3-methylphenol	ND		4.7	0.42	ug/L		02/14/12 14:16	02/15/12 20:13	1
4-Chloroaniline	ND		4.7	0.56	ug/L		02/14/12 14:16	02/15/12 20:13	1
4-Chlorophenyl phenyl ether	ND		4.7	0.33	ug/L		02/14/12 14:16	02/15/12 20:13	1
4-Methylphenol	ND		9.4	0.34	ug/L		02/14/12 14:16	02/15/12 20:13	1
4-Nitroaniline	ND		9.4	0.24	ug/L		02/14/12 14:16	02/15/12 20:13	1
4-Nitrophenol	ND		9.4	1.4	ug/L		02/14/12 14:16	02/15/12 20:13	1
Acenaphthene	**0.42**	**J**	4.7	0.39	ug/L		02/14/12 14:16	02/15/12 20:13	1
Acenaphthylene	ND		4.7	0.36	ug/L		02/14/12 14:16	02/15/12 20:13	1
Acetophenone	**13**		4.7	0.51	ug/L		02/14/12 14:16	02/15/12 20:13	1
Anthracene	ND		4.7	0.26	ug/L		02/14/12 14:16	02/15/12 20:13	1
Atrazine	ND		4.7	0.43	ug/L		02/14/12 14:16	02/15/12 20:13	1
Benzaldehyde	ND		4.7	0.25	ug/L		02/14/12 14:16	02/15/12 20:13	1
Benzo(a)anthracene	ND		4.7	0.34	ug/L		02/14/12 14:16	02/15/12 20:13	1
Benzo(a)pyrene	ND	*	4.7	0.44	ug/L		02/14/12 14:16	02/15/12 20:13	1
Benzo(b)fluoranthene	ND	*	4.7	0.32	ug/L		02/14/12 14:16	02/15/12 20:13	1
Benzo(g,h,i)perylene	ND		4.7	0.33	ug/L		02/14/12 14:16	02/15/12 20:13	1
Benzo(k)fluoranthene	ND	*	4.7	0.69	ug/L		02/14/12 14:16	02/15/12 20:13	1
Bis(2-chloroethoxy)methane	ND		4.7	0.33	ug/L		02/14/12 14:16	02/15/12 20:13	1
Bis(2-chloroethyl)ether	ND		4.7	0.38	ug/L		02/14/12 14:16	02/15/12 20:13	1
Bis(2-ethylhexyl) phthalate	ND		4.7	1.7	ug/L		02/14/12 14:16	02/15/12 20:13	1
Butyl benzyl phthalate	ND		4.7	0.40	ug/L		02/14/12 14:16	02/15/12 20:13	1
Caprolactam	ND		4.7	2.1	ug/L		02/14/12 14:16	02/15/12 20:13	1
Carbazole	ND		4.7	0.28	ug/L		02/14/12 14:16	02/15/12 20:13	1
Chrysene	ND		4.7	0.31	ug/L		02/14/12 14:16	02/15/12 20:13	1
Di-n-butyl phthalate	**0.39**	**J B**	4.7	0.29	ug/L		02/14/12 14:16	02/15/12 20:13	1
Di-n-octyl phthalate	ND		4.7	0.44	ug/L		02/14/12 14:16	02/15/12 20:13	1
Dibenz(a,h)anthracene	ND		4.7	0.40	ug/L		02/14/12 14:16	02/15/12 20:13	1
Dibenzofuran	ND		9.4	0.48	ug/L		02/14/12 14:16	02/15/12 20:13	1
Diethyl phthalate	ND		4.7	0.21	ug/L		02/14/12 14:16	02/15/12 20:13	1
Dimethyl phthalate	ND		4.7	0.34	ug/L		02/14/12 14:16	02/15/12 20:13	1
Fluoranthene	ND		4.7	0.38	ug/L		02/14/12 14:16	02/15/12 20:13	1
Fluorene	ND		4.7	0.34	ug/L		02/14/12 14:16	02/15/12 20:13	1

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16020-1

Client Sample ID: TMW-03
Date Collected: 02/10/12 09:15
Date Received: 02/10/12 13:25

Lab Sample ID: 480-16020-1
Matrix: Water

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobenzene	ND		4.7	0.48	ug/L		02/14/12 14:16	02/15/12 20:13	1
Hexachlorobutadiene	ND		4.7	0.64	ug/L		02/14/12 14:16	02/15/12 20:13	1
Hexachlorocyclopentadiene	ND		4.7	0.56	ug/L		02/14/12 14:16	02/15/12 20:13	1
Hexachloroethane	ND		4.7	0.56	ug/L		02/14/12 14:16	02/15/12 20:13	1
Indeno(1,2,3-cd)pyrene	ND		4.7	0.44	ug/L		02/14/12 14:16	02/15/12 20:13	1
Isophorone	ND		4.7	0.41	ug/L		02/14/12 14:16	02/15/12 20:13	1
N-Nitrosodi-n-propylamine	ND		4.7	0.51	ug/L		02/14/12 14:16	02/15/12 20:13	1
N-Nitrosodiphenylamine	ND		4.7	0.48	ug/L		02/14/12 14:16	02/15/12 20:13	1
Naphthalene	**21**		4.7	0.72	ug/L		02/14/12 14:16	02/15/12 20:13	1
Nitrobenzene	ND		4.7	0.27	ug/L		02/14/12 14:16	02/15/12 20:13	1
Pentachlorophenol	ND		9.4	2.1	ug/L		02/14/12 14:16	02/15/12 20:13	1
Phenanthrene	ND		4.7	0.42	ug/L		02/14/12 14:16	02/15/12 20:13	1
Phenol	ND		4.7	0.37	ug/L		02/14/12 14:16	02/15/12 20:13	1
Pyrene	**0.36**	**J**	4.7	0.32	ug/L		02/14/12 14:16	02/15/12 20:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*129*		*52 - 132*	*02/14/12 14:16*	*02/15/12 20:13*	*1*
2-Fluorobiphenyl	*103*		*48 - 120*	*02/14/12 14:16*	*02/15/12 20:13*	*1*
2-Fluorophenol	*56*		*20 - 120*	*02/14/12 14:16*	*02/15/12 20:13*	*1*
Nitrobenzene-d5	*98*		*46 - 120*	*02/14/12 14:16*	*02/15/12 20:13*	*1*
p-Terphenyl-d14	*88*		*67 - 150*	*02/14/12 14:16*	*02/15/12 20:13*	*1*
Phenol-d5	*40*		*16 - 120*	*02/14/12 14:16*	*02/15/12 20:13*	*1*

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16020-1

Client Sample ID: TMW-01
Date Collected: 02/09/12 16:00
Date Received: 02/10/12 11:40

Lab Sample ID: 480-16024-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			02/14/12 16:46	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			02/14/12 16:46	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			02/14/12 16:46	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			02/14/12 16:46	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			02/14/12 16:46	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			02/14/12 16:46	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			02/14/12 16:46	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			02/14/12 16:46	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			02/14/12 16:46	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			02/14/12 16:46	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			02/14/12 16:46	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			02/14/12 16:46	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			02/14/12 16:46	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			02/14/12 16:46	1
2-Hexanone	ND		5.0	1.2	ug/L			02/14/12 16:46	1
2-Butanone (MEK)	**1.3**	**J**	10	1.3	ug/L			02/14/12 16:46	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			02/14/12 16:46	1
Acetone	**4.2**	**J**	10	3.0	ug/L			02/14/12 16:46	1
Benzene	ND		1.0	0.41	ug/L			02/14/12 16:46	1
Bromodichloromethane	ND		1.0	0.39	ug/L			02/14/12 16:46	1
Bromoform	ND		1.0	0.26	ug/L			02/14/12 16:46	1
Bromomethane	ND		1.0	0.69	ug/L			02/14/12 16:46	1
Carbon disulfide	ND		1.0	0.19	ug/L			02/14/12 16:46	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			02/14/12 16:46	1
Chlorobenzene	ND		1.0	0.75	ug/L			02/14/12 16:46	1
Dibromochloromethane	ND		1.0	0.32	ug/L			02/14/12 16:46	1
Chloroethane	ND		1.0	0.32	ug/L			02/14/12 16:46	1
Chloroform	ND		1.0	0.34	ug/L			02/14/12 16:46	1
Chloromethane	ND		1.0	0.35	ug/L			02/14/12 16:46	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			02/14/12 16:46	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			02/14/12 16:46	1
Cyclohexane	ND		1.0	0.18	ug/L			02/14/12 16:46	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			02/14/12 16:46	1
Ethylbenzene	ND		1.0	0.74	ug/L			02/14/12 16:46	1
Isopropylbenzene	ND		1.0	0.79	ug/L			02/14/12 16:46	1
Methyl acetate	ND		1.0	0.50	ug/L			02/14/12 16:46	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			02/14/12 16:46	1
Methylcyclohexane	ND		1.0	0.16	ug/L			02/14/12 16:46	1
Methylene Chloride	**1.3**		1.0	0.44	ug/L			02/14/12 16:46	1
Styrene	ND		1.0	0.73	ug/L			02/14/12 16:46	1
Tetrachloroethene	ND		1.0	0.36	ug/L			02/14/12 16:46	1
Toluene	ND		1.0	0.51	ug/L			02/14/12 16:46	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			02/14/12 16:46	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			02/14/12 16:46	1
Trichloroethene	ND		1.0	0.46	ug/L			02/14/12 16:46	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			02/14/12 16:46	1
Vinyl chloride	ND		1.0	0.90	ug/L			02/14/12 16:46	1
Xylenes, Total	ND		2.0	0.66	ug/L			02/14/12 16:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*66 - 137*		*02/14/12 16:46*	*1*

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16020-1

Client Sample ID: TMW-01
Date Collected: 02/09/12 16:00
Date Received: 02/10/12 11:40

Lab Sample ID: 480-16024-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	97		71 - 126		02/14/12 16:46	1
4-Bromofluorobenzene (Surr)	94		73 - 120		02/14/12 16:46	1

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16020-1

Client Sample ID: TMW-02
Date Collected: 02/09/12 12:40
Date Received: 02/10/12 11:40

Lab Sample ID: 480-16024-2
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			02/14/12 17:07	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			02/14/12 17:07	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			02/14/12 17:07	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			02/14/12 17:07	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			02/14/12 17:07	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			02/14/12 17:07	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			02/14/12 17:07	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			02/14/12 17:07	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			02/14/12 17:07	1
1,2-Dichlorobenzene	**2.1**		1.0	0.79	ug/L			02/14/12 17:07	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			02/14/12 17:07	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			02/14/12 17:07	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			02/14/12 17:07	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			02/14/12 17:07	1
2-Hexanone	ND		5.0	1.2	ug/L			02/14/12 17:07	1
2-Butanone (MEK)	ND		10	1.3	ug/L			02/14/12 17:07	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			02/14/12 17:07	1
Acetone	ND		10	3.0	ug/L			02/14/12 17:07	1
Benzene	ND		1.0	0.41	ug/L			02/14/12 17:07	1
Bromodichloromethane	ND		1.0	0.39	ug/L			02/14/12 17:07	1
Bromoform	ND		1.0	0.26	ug/L			02/14/12 17:07	1
Bromomethane	ND		1.0	0.69	ug/L			02/14/12 17:07	1
Carbon disulfide	ND		1.0	0.19	ug/L			02/14/12 17:07	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			02/14/12 17:07	1
Chlorobenzene	**6.3**		1.0	0.75	ug/L			02/14/12 17:07	1
Dibromochloromethane	ND		1.0	0.32	ug/L			02/14/12 17:07	1
Chloroethane	ND		1.0	0.32	ug/L			02/14/12 17:07	1
Chloroform	ND		1.0	0.34	ug/L			02/14/12 17:07	1
Chloromethane	ND		1.0	0.35	ug/L			02/14/12 17:07	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			02/14/12 17:07	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			02/14/12 17:07	1
Cyclohexane	ND		1.0	0.18	ug/L			02/14/12 17:07	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			02/14/12 17:07	1
Ethylbenzene	ND		1.0	0.74	ug/L			02/14/12 17:07	1
Isopropylbenzene	ND		1.0	0.79	ug/L			02/14/12 17:07	1
Methyl acetate	ND		1.0	0.50	ug/L			02/14/12 17:07	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			02/14/12 17:07	1
Methylcyclohexane	ND		1.0	0.16	ug/L			02/14/12 17:07	1
Methylene Chloride	**0.59**	**J**	1.0	0.44	ug/L			02/14/12 17:07	1
Styrene	ND		1.0	0.73	ug/L			02/14/12 17:07	1
Tetrachloroethene	ND		1.0	0.36	ug/L			02/14/12 17:07	1
Toluene	ND		1.0	0.51	ug/L			02/14/12 17:07	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			02/14/12 17:07	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			02/14/12 17:07	1
Trichloroethene	ND		1.0	0.46	ug/L			02/14/12 17:07	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			02/14/12 17:07	1
Vinyl chloride	ND		1.0	0.90	ug/L			02/14/12 17:07	1
Xylenes, Total	ND		2.0	0.66	ug/L			02/14/12 17:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*66 - 137*		*02/14/12 17:07*	*1*

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16020-1

Client Sample ID: TMW-02
Date Collected: 02/09/12 12:40
Date Received: 02/10/12 11:40

Lab Sample ID: 480-16024-2
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		71 - 126		02/14/12 17:07	1
4-Bromofluorobenzene (Surr)	95		73 - 120		02/14/12 17:07	1

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16020-1

Client Sample ID: TMW-03
Date Collected: 02/09/12 16:15
Date Received: 02/10/12 11:40

Lab Sample ID: 480-16024-3
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			02/14/12 18:13	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			02/14/12 18:13	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			02/14/12 18:13	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			02/14/12 18:13	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			02/14/12 18:13	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			02/14/12 18:13	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			02/14/12 18:13	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			02/14/12 18:13	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			02/14/12 18:13	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			02/14/12 18:13	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			02/14/12 18:13	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			02/14/12 18:13	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			02/14/12 18:13	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			02/14/12 18:13	1
2-Hexanone	ND		5.0	1.2	ug/L			02/14/12 18:13	1
2-Butanone (MEK)	**1.3**	**J**	10	1.3	ug/L			02/14/12 18:13	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			02/14/12 18:13	1
Acetone	ND		10	3.0	ug/L			02/14/12 18:13	1
Benzene	**1.2**		1.0	0.41	ug/L			02/14/12 18:13	1
Bromodichloromethane	ND		1.0	0.39	ug/L			02/14/12 18:13	1
Bromoform	ND		1.0	0.26	ug/L			02/14/12 18:13	1
Bromomethane	ND		1.0	0.69	ug/L			02/14/12 18:13	1
Carbon disulfide	ND		1.0	0.19	ug/L			02/14/12 18:13	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			02/14/12 18:13	1
Chlorobenzene	**0.78**	**J**	1.0	0.75	ug/L			02/14/12 18:13	1
Dibromochloromethane	ND		1.0	0.32	ug/L			02/14/12 18:13	1
Chloroethane	ND		1.0	0.32	ug/L			02/14/12 18:13	1
Chloroform	ND		1.0	0.34	ug/L			02/14/12 18:13	1
Chloromethane	ND		1.0	0.35	ug/L			02/14/12 18:13	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			02/14/12 18:13	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			02/14/12 18:13	1
Cyclohexane	**3.2**		1.0	0.18	ug/L			02/14/12 18:13	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			02/14/12 18:13	1
Ethylbenzene	**1.6**		1.0	0.74	ug/L			02/14/12 18:13	1
Isopropylbenzene	**25**		1.0	0.79	ug/L			02/14/12 18:13	1
Methyl acetate	ND		1.0	0.50	ug/L			02/14/12 18:13	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			02/14/12 18:13	1
Methylcyclohexane	**11**		1.0	0.16	ug/L			02/14/12 18:13	1
Methylene Chloride	ND		1.0	0.44	ug/L			02/14/12 18:13	1
Styrene	ND		1.0	0.73	ug/L			02/14/12 18:13	1
Tetrachloroethene	ND		1.0	0.36	ug/L			02/14/12 18:13	1
Toluene	**0.54**	**J**	1.0	0.51	ug/L			02/14/12 18:13	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			02/14/12 18:13	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			02/14/12 18:13	1
Trichloroethene	ND		1.0	0.46	ug/L			02/14/12 18:13	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			02/14/12 18:13	1
Vinyl chloride	ND		1.0	0.90	ug/L			02/14/12 18:13	1
Xylenes, Total	**6.0**		2.0	0.66	ug/L			02/14/12 18:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*66 - 137*		*02/14/12 18:13*	*1*

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16020-1

Client Sample ID: TMW-03
Date Collected: 02/09/12 16:15
Date Received: 02/10/12 11:40

Lab Sample ID: 480-16024-3
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	76		71 - 126		02/14/12 18:13	1
4-Bromofluorobenzene (Surr)	73		73 - 120		02/14/12 18:13	1

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16020-1

Client Sample ID: TRIP BLANK
Date Collected: 02/09/12 00:00
Date Received: 02/10/12 11:40

Lab Sample ID: 480-16024-4
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			02/14/12 18:35	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			02/14/12 18:35	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			02/14/12 18:35	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			02/14/12 18:35	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			02/14/12 18:35	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			02/14/12 18:35	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			02/14/12 18:35	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			02/14/12 18:35	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			02/14/12 18:35	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			02/14/12 18:35	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			02/14/12 18:35	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			02/14/12 18:35	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			02/14/12 18:35	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			02/14/12 18:35	1
2-Hexanone	ND		5.0	1.2	ug/L			02/14/12 18:35	1
2-Butanone (MEK)	ND		10	1.3	ug/L			02/14/12 18:35	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			02/14/12 18:35	1
Acetone	ND		10	3.0	ug/L			02/14/12 18:35	1
Benzene	ND		1.0	0.41	ug/L			02/14/12 18:35	1
Bromodichloromethane	ND		1.0	0.39	ug/L			02/14/12 18:35	1
Bromoform	ND		1.0	0.26	ug/L			02/14/12 18:35	1
Bromomethane	ND		1.0	0.69	ug/L			02/14/12 18:35	1
Carbon disulfide	ND		1.0	0.19	ug/L			02/14/12 18:35	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			02/14/12 18:35	1
Chlorobenzene	ND		1.0	0.75	ug/L			02/14/12 18:35	1
Dibromochloromethane	ND		1.0	0.32	ug/L			02/14/12 18:35	1
Chloroethane	ND		1.0	0.32	ug/L			02/14/12 18:35	1
Chloroform	ND		1.0	0.34	ug/L			02/14/12 18:35	1
Chloromethane	ND		1.0	0.35	ug/L			02/14/12 18:35	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			02/14/12 18:35	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			02/14/12 18:35	1
Cyclohexane	ND		1.0	0.18	ug/L			02/14/12 18:35	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			02/14/12 18:35	1
Ethylbenzene	ND		1.0	0.74	ug/L			02/14/12 18:35	1
Isopropylbenzene	ND		1.0	0.79	ug/L			02/14/12 18:35	1
Methyl acetate	ND		1.0	0.50	ug/L			02/14/12 18:35	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			02/14/12 18:35	1
Methylcyclohexane	ND		1.0	0.16	ug/L			02/14/12 18:35	1
Methylene Chloride	ND		1.0	0.44	ug/L			02/14/12 18:35	1
Styrene	ND		1.0	0.73	ug/L			02/14/12 18:35	1
Tetrachloroethene	ND		1.0	0.36	ug/L			02/14/12 18:35	1
Toluene	ND		1.0	0.51	ug/L			02/14/12 18:35	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			02/14/12 18:35	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			02/14/12 18:35	1
Trichloroethene	ND		1.0	0.46	ug/L			02/14/12 18:35	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			02/14/12 18:35	1
Vinyl chloride	ND		1.0	0.90	ug/L			02/14/12 18:35	1
Xylenes, Total	ND		2.0	0.66	ug/L			02/14/12 18:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*66 - 137*		*02/14/12 18:35*	*1*

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16020-1

Client Sample ID: TRIP BLANK
Date Collected: 02/09/12 00:00
Date Received: 02/10/12 11:40

Lab Sample ID: 480-16024-4
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		71 - 126		02/14/12 18:35	1
4-Bromofluorobenzene (Surr)	95		73 - 120		02/14/12 18:35	1

Surrogate Summary

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16020-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		12DCE	TOL	BFB
Lab Sample ID	Client Sample ID	(66-137)	(71-126)	(73-120)
480-16024-1	TMW-01	101	97	94
480-16024-2	TMW-02	103	100	95
480-16024-2 MS	TMW-02	99	100	95
480-16024-2 MSD	TMW-02	99	101	96
480-16024-3	TMW-03	108	76	73
480-16024-4	TRIP BLANK	100	102	95
LCS 480-51513/4	Lab Control Sample	102	101	94
MB 480-51513/5	Method Blank	100	99	94

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	TPH	PHL
Lab Sample ID	Client Sample ID	(52-132)	(48-120)	(20-120)	(46-120)	(67-150)	(16-120)
480-16020-1	TMW-03	129	103	56	98	88	40
LCS 480-51566/2-A	Lab Control Sample	124	103	59	98	121	41
LCSD 480-51566/3-A	Lab Control Sample Dup	124	100	57	95	118	39
MB 480-51566/1-A	Method Blank	119	90	47	82	130	33

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
TPH = p-Terphenyl-d14
PHL = Phenol-d5

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16020-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-51513/5
Matrix: Water
Analysis Batch: 51513

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			02/14/12 11:54	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			02/14/12 11:54	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			02/14/12 11:54	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			02/14/12 11:54	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			02/14/12 11:54	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			02/14/12 11:54	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			02/14/12 11:54	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			02/14/12 11:54	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			02/14/12 11:54	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			02/14/12 11:54	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			02/14/12 11:54	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			02/14/12 11:54	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			02/14/12 11:54	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			02/14/12 11:54	1
2-Hexanone	ND		5.0	1.2	ug/L			02/14/12 11:54	1
2-Butanone (MEK)	ND		10	1.3	ug/L			02/14/12 11:54	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			02/14/12 11:54	1
Acetone	ND		10	3.0	ug/L			02/14/12 11:54	1
Benzene	ND		1.0	0.41	ug/L			02/14/12 11:54	1
Bromodichloromethane	ND		1.0	0.39	ug/L			02/14/12 11:54	1
Bromoform	ND		1.0	0.26	ug/L			02/14/12 11:54	1
Bromomethane	ND		1.0	0.69	ug/L			02/14/12 11:54	1
Carbon disulfide	ND		1.0	0.19	ug/L			02/14/12 11:54	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			02/14/12 11:54	1
Chlorobenzene	ND		1.0	0.75	ug/L			02/14/12 11:54	1
Dibromochloromethane	ND		1.0	0.32	ug/L			02/14/12 11:54	1
Chloroethane	ND		1.0	0.32	ug/L			02/14/12 11:54	1
Chloroform	ND		1.0	0.34	ug/L			02/14/12 11:54	1
Chloromethane	ND		1.0	0.35	ug/L			02/14/12 11:54	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			02/14/12 11:54	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			02/14/12 11:54	1
Cyclohexane	ND		1.0	0.18	ug/L			02/14/12 11:54	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			02/14/12 11:54	1
Ethylbenzene	ND		1.0	0.74	ug/L			02/14/12 11:54	1
Isopropylbenzene	ND		1.0	0.79	ug/L			02/14/12 11:54	1
Methyl acetate	ND		1.0	0.50	ug/L			02/14/12 11:54	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			02/14/12 11:54	1
Methylcyclohexane	ND		1.0	0.16	ug/L			02/14/12 11:54	1
Methylene Chloride	ND		1.0	0.44	ug/L			02/14/12 11:54	1
Styrene	ND		1.0	0.73	ug/L			02/14/12 11:54	1
Tetrachloroethene	ND		1.0	0.36	ug/L			02/14/12 11:54	1
Toluene	ND		1.0	0.51	ug/L			02/14/12 11:54	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			02/14/12 11:54	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			02/14/12 11:54	1
Trichloroethene	ND		1.0	0.46	ug/L			02/14/12 11:54	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			02/14/12 11:54	1
Vinyl chloride	ND		1.0	0.90	ug/L			02/14/12 11:54	1
Xylenes, Total	ND		2.0	0.66	ug/L			02/14/12 11:54	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-51513/5
Matrix: Water
Analysis Batch: 51513

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		66 - 137		02/14/12 11:54	1
Toluene-d8 (Surr)	99		71 - 126		02/14/12 11:54	1
4-Bromofluorobenzene (Surr)	94		73 - 120		02/14/12 11:54	1

Lab Sample ID: LCS 480-51513/4
Matrix: Water
Analysis Batch: 51513

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	25.0	23.3		ug/L		93	71 - 129
1,1-Dichloroethene	25.0	23.1		ug/L		92	65 - 138
1,2-Dichlorobenzene	25.0	23.6		ug/L		94	77 - 120
1,2-Dichloroethane	25.0	23.8		ug/L		95	75 - 127
Benzene	25.0	23.0		ug/L		92	71 - 124
Chlorobenzene	25.0	23.2		ug/L		93	72 - 120
cis-1,2-Dichloroethene	25.0	22.7		ug/L		91	74 - 124
Ethylbenzene	25.0	23.3		ug/L		93	77 - 123
Methyl tert-butyl ether	25.0	23.3		ug/L		93	64 - 127
Tetrachloroethene	25.0	23.1		ug/L		92	74 - 122
Toluene	25.0	22.9		ug/L		92	70 - 122
trans-1,2-Dichloroethene	25.0	23.5		ug/L		94	73 - 127
Trichloroethene	25.0	22.5		ug/L		90	74 - 123

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	102		66 - 137
Toluene-d8 (Surr)	101		71 - 126
4-Bromofluorobenzene (Surr)	94		73 - 120

Lab Sample ID: 480-16024-2 MS
Matrix: Water
Analysis Batch: 51513

Client Sample ID: TMW-02
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	ND		25.0	25.5		ug/L		102	71 - 129
1,1-Dichloroethene	ND		25.0	25.5		ug/L		102	65 - 138
1,2-Dichlorobenzene	2.1		25.0	25.6		ug/L		94	77 - 120
1,2-Dichloroethane	ND		25.0	24.8		ug/L		99	75 - 127
Benzene	ND		25.0	25.2		ug/L		101	71 - 124
Chlorobenzene	6.3		25.0	31.5		ug/L		101	72 - 120
cis-1,2-Dichloroethene	ND		25.0	24.3		ug/L		97	74 - 124
Ethylbenzene	ND		25.0	25.5		ug/L		102	77 - 123
Methyl tert-butyl ether	ND		25.0	23.1		ug/L		92	64 - 127
Tetrachloroethene	ND		25.0	25.5		ug/L		102	74 - 122
Toluene	ND		25.0	25.0		ug/L		100	70 - 122
trans-1,2-Dichloroethene	ND		25.0	26.6		ug/L		106	73 - 127
Trichloroethene	ND		25.0	24.9		ug/L		100	74 - 123

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		66 - 137

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 480-16024-2 MS
Matrix: Water
Analysis Batch: 51513

Client Sample ID: TMW-02
Prep Type: Total/NA

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Toluene-d8 (Surr)	*100*		*71 - 126*
4-Bromofluorobenzene (Surr)	*95*		*73 - 120*

Lab Sample ID: 480-16024-2 MSD
Matrix: Water
Analysis Batch: 51513

Client Sample ID: TMW-02
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethane	ND		25.0	26.9		ug/L		108	71 - 129	5	20
1,1-Dichloroethene	ND		25.0	26.5		ug/L		106	65 - 138	4	16
1,2-Dichlorobenzene	2.1		25.0	25.1		ug/L		92	77 - 120	2	20
1,2-Dichloroethane	ND		25.0	26.4		ug/L		106	75 - 127	6	20
Benzene	ND		25.0	26.5		ug/L		106	71 - 124	5	13
Chlorobenzene	6.3		25.0	31.2		ug/L		100	72 - 120	1	25
cis-1,2-Dichloroethene	ND		25.0	25.6		ug/L		102	74 - 124	5	15
Ethylbenzene	ND		25.0	26.0		ug/L		104	77 - 123	2	15
Methyl tert-butyl ether	ND		25.0	24.7		ug/L		99	64 - 127	7	37
Tetrachloroethene	ND		25.0	26.3		ug/L		105	74 - 122	3	20
Toluene	ND		25.0	26.3		ug/L		105	70 - 122	5	15
trans-1,2-Dichloroethene	ND		25.0	27.9		ug/L		112	73 - 127	5	20
Trichloroethene	ND		25.0	25.5		ug/L		102	74 - 123	2	16

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*66 - 137*
Toluene-d8 (Surr)	*101*		*71 - 126*
4-Bromofluorobenzene (Surr)	*96*		*73 - 120*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-51566/1-A
Matrix: Water
Analysis Batch: 51664

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 51566

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		5.0	0.65	ug/L		02/14/12 14:16	02/15/12 11:19	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		02/14/12 14:16	02/15/12 11:19	1
2,4,5-Trichlorophenol	ND		5.0	0.48	ug/L		02/14/12 14:16	02/15/12 11:19	1
2,4,6-Trichlorophenol	ND		5.0	0.61	ug/L		02/14/12 14:16	02/15/12 11:19	1
2,4-Dichlorophenol	ND		5.0	0.51	ug/L		02/14/12 14:16	02/15/12 11:19	1
2,4-Dimethylphenol	ND		5.0	0.50	ug/L		02/14/12 14:16	02/15/12 11:19	1
2,4-Dinitrophenol	ND		10	2.2	ug/L		02/14/12 14:16	02/15/12 11:19	1
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		02/14/12 14:16	02/15/12 11:19	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		02/14/12 14:16	02/15/12 11:19	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		02/14/12 14:16	02/15/12 11:19	1
2-Chlorophenol	ND		5.0	0.53	ug/L		02/14/12 14:16	02/15/12 11:19	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		02/14/12 14:16	02/15/12 11:19	1
2-Methylphenol	ND		5.0	0.40	ug/L		02/14/12 14:16	02/15/12 11:19	1
2-Nitroaniline	ND		10	0.42	ug/L		02/14/12 14:16	02/15/12 11:19	1
2-Nitrophenol	ND		5.0	0.48	ug/L		02/14/12 14:16	02/15/12 11:19	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-51566/1-A
Matrix: Water
Analysis Batch: 51664

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 51566

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	ND		5.0	0.40	ug/L		02/14/12 14:16	02/15/12 11:19	1
3-Nitroaniline	ND		10	0.48	ug/L		02/14/12 14:16	02/15/12 11:19	1
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L		02/14/12 14:16	02/15/12 11:19	1
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		02/14/12 14:16	02/15/12 11:19	1
4-Chloro-3-methylphenol	ND		5.0	0.45	ug/L		02/14/12 14:16	02/15/12 11:19	1
4-Chloroaniline	ND		5.0	0.59	ug/L		02/14/12 14:16	02/15/12 11:19	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		02/14/12 14:16	02/15/12 11:19	1
4-Methylphenol	ND		10	0.36	ug/L		02/14/12 14:16	02/15/12 11:19	1
4-Nitroaniline	ND		10	0.25	ug/L		02/14/12 14:16	02/15/12 11:19	1
4-Nitrophenol	ND		10	1.5	ug/L		02/14/12 14:16	02/15/12 11:19	1
Acenaphthene	ND		5.0	0.41	ug/L		02/14/12 14:16	02/15/12 11:19	1
Acenaphthylene	ND		5.0	0.38	ug/L		02/14/12 14:16	02/15/12 11:19	1
Acetophenone	ND		5.0	0.54	ug/L		02/14/12 14:16	02/15/12 11:19	1
Anthracene	ND		5.0	0.28	ug/L		02/14/12 14:16	02/15/12 11:19	1
Atrazine	ND		5.0	0.46	ug/L		02/14/12 14:16	02/15/12 11:19	1
Benzaldehyde	ND		5.0	0.27	ug/L		02/14/12 14:16	02/15/12 11:19	1
Benzo(a)anthracene	ND		5.0	0.36	ug/L		02/14/12 14:16	02/15/12 11:19	1
Benzo(a)pyrene	ND		5.0	0.47	ug/L		02/14/12 14:16	02/15/12 11:19	1
Benzo(b)fluoranthene	ND		5.0	0.34	ug/L		02/14/12 14:16	02/15/12 11:19	1
Benzo(g,h,i)perylene	ND		5.0	0.35	ug/L		02/14/12 14:16	02/15/12 11:19	1
Benzo(k)fluoranthene	ND		5.0	0.73	ug/L		02/14/12 14:16	02/15/12 11:19	1
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L		02/14/12 14:16	02/15/12 11:19	1
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		02/14/12 14:16	02/15/12 11:19	1
Bis(2-ethylhexyl) phthalate	ND		5.0	1.8	ug/L		02/14/12 14:16	02/15/12 11:19	1
Butyl benzyl phthalate	ND		5.0	0.42	ug/L		02/14/12 14:16	02/15/12 11:19	1
Caprolactam	ND		5.0	2.2	ug/L		02/14/12 14:16	02/15/12 11:19	1
Carbazole	ND		5.0	0.30	ug/L		02/14/12 14:16	02/15/12 11:19	1
Chrysene	ND		5.0	0.33	ug/L		02/14/12 14:16	02/15/12 11:19	1
Di-n-butyl phthalate	0.499	J	5.0	0.31	ug/L		02/14/12 14:16	02/15/12 11:19	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		02/14/12 14:16	02/15/12 11:19	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		02/14/12 14:16	02/15/12 11:19	1
Dibenzofuran	ND		10	0.51	ug/L		02/14/12 14:16	02/15/12 11:19	1
Diethyl phthalate	ND		5.0	0.22	ug/L		02/14/12 14:16	02/15/12 11:19	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		02/14/12 14:16	02/15/12 11:19	1
Fluoranthene	ND		5.0	0.40	ug/L		02/14/12 14:16	02/15/12 11:19	1
Fluorene	ND		5.0	0.36	ug/L		02/14/12 14:16	02/15/12 11:19	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		02/14/12 14:16	02/15/12 11:19	1
Hexachlorobutadiene	ND		5.0	0.68	ug/L		02/14/12 14:16	02/15/12 11:19	1
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L		02/14/12 14:16	02/15/12 11:19	1
Hexachloroethane	ND		5.0	0.59	ug/L		02/14/12 14:16	02/15/12 11:19	1
Indeno(1,2,3-cd)pyrene	ND		5.0	0.47	ug/L		02/14/12 14:16	02/15/12 11:19	1
Isophorone	ND		5.0	0.43	ug/L		02/14/12 14:16	02/15/12 11:19	1
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		02/14/12 14:16	02/15/12 11:19	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		02/14/12 14:16	02/15/12 11:19	1
Naphthalene	ND		5.0	0.76	ug/L		02/14/12 14:16	02/15/12 11:19	1
Nitrobenzene	ND		5.0	0.29	ug/L		02/14/12 14:16	02/15/12 11:19	1
Pentachlorophenol	ND		10	2.2	ug/L		02/14/12 14:16	02/15/12 11:19	1
Phenanthrene	ND		5.0	0.44	ug/L		02/14/12 14:16	02/15/12 11:19	1
Phenol	ND		5.0	0.39	ug/L		02/14/12 14:16	02/15/12 11:19	1
Pyrene	ND		5.0	0.34	ug/L		02/14/12 14:16	02/15/12 11:19	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-51566/1-A
Matrix: Water
Analysis Batch: 51664

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 51566

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	119		52 - 132	02/14/12 14:16	02/15/12 11:19	1
2-Fluorobiphenyl	90		48 - 120	02/14/12 14:16	02/15/12 11:19	1
2-Fluorophenol	47		20 - 120	02/14/12 14:16	02/15/12 11:19	1
Nitrobenzene-d5	82		46 - 120	02/14/12 14:16	02/15/12 11:19	1
p-Terphenyl-d14	130		67 - 150	02/14/12 14:16	02/15/12 11:19	1
Phenol-d5	33		16 - 120	02/14/12 14:16	02/15/12 11:19	1

Lab Sample ID: LCS 480-51566/2-A
Matrix: Water
Analysis Batch: 51664

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 51566

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4-Dinitrotoluene	100	117		ug/L		117	59 - 125
2-Chlorophenol	100	91.2		ug/L		91	48 - 120
4-Chloro-3-methylphenol	100	106		ug/L		106	64 - 120
4-Nitrophenol	100	62.0		ug/L		62	16 - 120
Acenaphthene	100	105		ug/L		105	60 - 120
Bis(2-ethylhexyl) phthalate	100	113		ug/L		113	69 - 136
Fluorene	100	111		ug/L		111	66 - 129
Hexachloroethane	100	76.4		ug/L		76	25 - 120
N-Nitrosodi-n-propylamine	100	102		ug/L		102	56 - 120
Pentachlorophenol	100	120		ug/L		120	39 - 136
Phenol	100	45.9		ug/L		46	17 - 120
Pyrene	100	110		ug/L		110	58 - 136

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol	124		52 - 132
2-Fluorobiphenyl	103		48 - 120
2-Fluorophenol	59		20 - 120
Nitrobenzene-d5	98		46 - 120
p-Terphenyl-d14	121		67 - 150
Phenol-d5	41		16 - 120

Lab Sample ID: LCSD 480-51566/3-A
Matrix: Water
Analysis Batch: 51664

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 51566

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4-Dinitrotoluene	100	116		ug/L		116	59 - 125	1	20
2-Chlorophenol	100	89.5		ug/L		90	48 - 120	2	25
4-Chloro-3-methylphenol	100	98.5		ug/L		99	64 - 120	7	27
4-Nitrophenol	100	57.5		ug/L		58	16 - 120	8	48
Acenaphthene	100	105		ug/L		105	60 - 120	1	24
Bis(2-ethylhexyl) phthalate	100	111		ug/L		111	69 - 136	2	15
Fluorene	100	108		ug/L		108	66 - 129	3	15
Hexachloroethane	100	76.0		ug/L		76	25 - 120	1	46
N-Nitrosodi-n-propylamine	100	103		ug/L		103	56 - 120	1	31
Pentachlorophenol	100	117		ug/L		117	39 - 136	3	37
Phenol	100	43.2		ug/L		43	17 - 120	6	34

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-51566/3-A
Matrix: Water
Analysis Batch: 51664

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 51566

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Pyrene			100	109		ug/L		109	58 - 136	1	19

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*124*		*52 - 132*
2-Fluorobiphenyl	*100*		*48 - 120*
2-Fluorophenol	*57*		*20 - 120*
Nitrobenzene-d5	*95*		*46 - 120*
p-Terphenyl-d14	*118*		*67 - 150*
Phenol-d5	*39*		*16 - 120*

QC Association Summary

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16020-1

GC/MS VOA

Analysis Batch: 51513

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16024-1	TMW-01	Total/NA	Water	8260B	
480-16024-2	TMW-02	Total/NA	Water	8260B	
480-16024-2 MS	TMW-02	Total/NA	Water	8260B	
480-16024-2 MSD	TMW-02	Total/NA	Water	8260B	
480-16024-3	TMW-03	Total/NA	Water	8260B	
480-16024-4	TRIP BLANK	Total/NA	Water	8260B	
LCS 480-51513/4	Lab Control Sample	Total/NA	Water	8260B	
MB 480-51513/5	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 51566

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16020-1	TMW-03	Total/NA	Water	3510C	
LCS 480-51566/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 480-51566/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 480-51566/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 51664

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-16020-1	TMW-03	Total/NA	Water	8270C	51566
LCS 480-51566/2-A	Lab Control Sample	Total/NA	Water	8270C	51566
LCSD 480-51566/3-A	Lab Control Sample Dup	Total/NA	Water	8270C	51566
MB 480-51566/1-A	Method Blank	Total/NA	Water	8270C	51566

Lab Chronicle

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16020-1

Client Sample ID: TMW-03
Lab Sample ID: 480-16020-1
Date Collected: 02/10/12 09:15
Matrix: Water
Date Received: 02/10/12 13:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			51566	02/14/12 14:16	KB	TAL BUF
Total/NA	Analysis	8270C		1	51664	02/15/12 20:13	KP	TAL BUF

Client Sample ID: TMW-01
Lab Sample ID: 480-16024-1
Date Collected: 02/09/12 16:00
Matrix: Water
Date Received: 02/10/12 11:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	51513	02/14/12 16:46	DC	TAL BUF

Client Sample ID: TMW-02
Lab Sample ID: 480-16024-2
Date Collected: 02/09/12 12:40
Matrix: Water
Date Received: 02/10/12 11:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	51513	02/14/12 17:07	DC	TAL BUF

Client Sample ID: TMW-03
Lab Sample ID: 480-16024-3
Date Collected: 02/09/12 16:15
Matrix: Water
Date Received: 02/10/12 11:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	51513	02/14/12 18:13	DC	TAL BUF

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-16024-4
Date Collected: 02/09/12 00:00
Matrix: Water
Date Received: 02/10/12 11:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	51513	02/14/12 18:35	DC	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Certification Summary

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16020-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Buffalo	Arkansas	State Program	6	88-0686
TestAmerica Buffalo	California	NELAC	9	1169CA
TestAmerica Buffalo	Connecticut	State Program	1	PH-0568
TestAmerica Buffalo	Florida	NELAC	4	E87672
TestAmerica Buffalo	Georgia	Georgia EPD	4	N/A
TestAmerica Buffalo	Georgia	State Program	4	956
TestAmerica Buffalo	Illinois	NELAC	5	100325 / 200003
TestAmerica Buffalo	Iowa	State Program	7	374
TestAmerica Buffalo	Kansas	NELAC	7	E-10187
TestAmerica Buffalo	Kentucky	Kentucky UST	4	30
TestAmerica Buffalo	Kentucky	State Program	4	90029
TestAmerica Buffalo	Louisiana	NELAC	6	02031
TestAmerica Buffalo	Maine	State Program	1	NY0044
TestAmerica Buffalo	Maryland	State Program	3	294
TestAmerica Buffalo	Massachusetts	State Program	1	M-NY044
TestAmerica Buffalo	Michigan	State Program	5	9937
TestAmerica Buffalo	Minnesota	NELAC	5	036-999-337
TestAmerica Buffalo	New Hampshire	NELAC	1	2337
TestAmerica Buffalo	New Hampshire	NELAC	1	68-00281
TestAmerica Buffalo	New Jersey	NELAC	2	NY455
TestAmerica Buffalo	New York	NELAC	2	10026
TestAmerica Buffalo	North Dakota	State Program	8	R-176
TestAmerica Buffalo	Oklahoma	State Program	6	9421
TestAmerica Buffalo	Oregon	NELAC	10	NY200003
TestAmerica Buffalo	Pennsylvania	NELAC	3	68-00281
TestAmerica Buffalo	Tennessee	State Program	4	TN02970
TestAmerica Buffalo	Texas	NELAC	6	T104704412-08-TX
TestAmerica Buffalo	USDA	USDA		P330-08-00242
TestAmerica Buffalo	Virginia	NELAC Secondary AB	3	460185
TestAmerica Buffalo	Virginia	State Program	3	278
TestAmerica Buffalo	Washington	State Program	10	C1677
TestAmerica Buffalo	Wisconsin	State Program	5	998310390

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method Summary

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16020-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL BUF
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL BUF

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Turnkey Environmental Restoration, LLC
Project/Site: Turnkey - 154 S. Ogden St. site

TestAmerica Job ID: 480-16020-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-16020-1	TMW-03	Water	02/10/12 09:15	02/10/12 13:25
480-16024-1	TMW-01	Water	02/09/12 16:00	02/10/12 11:40
480-16024-2	TMW-02	Water	02/09/12 12:40	02/10/12 11:40
480-16024-3	TMW-03	Water	02/09/12 16:15	02/10/12 11:40
480-16024-4	TRIP BLANK	Water	02/09/12 00:00	02/10/12 11:40

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
Tunkey Environmental	Bryan Hamm	2/10/12	149962
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 1 of 1**
2558 Hamburg Turnpike	(716) 856-0635		
City	**State / Zip Code**	**Site Contact**	**Lab Contact**
Lackawanna	NY 14218	T. Behrendt	B. Fisch
Project Name and Location (State)	**Carrier/Waybill Number**	**Analysis (Attach list if more space is needed)**	
South Buffalo Charter School		TCL 8270	
Contract/Purchase Order/Quote No.			**Special Instructions/ Conditions of Receipt**

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	TCL 8270
TMW-03	2/10/12	715		X			X						2

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other STD

QC Requirements (Specify) Cat B

	Date	Time		Date	Time
1. Relinquished By	2/10/12	1325	1. Received By	2-10-12	1325
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

7.6 #2

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
Tunkey Environmental	Bryan Hunn	2/9/12	19524
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 1 of 1**
2558 Hamburg Turnpike	(716) 856-0635		
City	**State / Zip Code**	**Site Contact**	**Lab Contact**
Lackawanna	NY 14218	T. Bohrer	B. Fischer
Project Name and Location (State)	**Carrier/Waybill Number**		
South Buffalo Charter School			
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Analysis (Attach list if more space is needed): TCL 8260 VOC	Special Instructions/ Conditions of Receipt
TMW-01	2/9/12	1600		X						X			3	
TMW-02 (ms/msd)		1240		X						X			3	
TMW-03		1615		X						X			3	
Trip Blank				X						X			1	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other STD

QC Requirements (Specify) Cat B

	Date	Time		Date	Time
1. Relinquished By	2/9/12	1700	1. Received By	02-10-12	10:45
2. Relinquished By	02-10-12	11:40	2. Received By	2/10/12	1140
3. Relinquished By			3. Received By		

Comments

2.1 #7

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Login Sample Receipt Checklist

Client: Turnkey Environmental Restoration, LLC

Job Number: 480-16020-1

Login Number: 16020

List Source: TestAmerica Buffalo

List Number: 1

Creator: Robitaille, Zach L

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.6 #2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	TURNKEY
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: Turnkey Environmental Restoration, LLC

Job Number: 480-16020-1

Login Number: 16024

List Source: TestAmerica Buffalo

List Number: 1

Creator: Robitaille, Zach L

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.1 #1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	TURNKEY
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

APPENDIX C

REPRESENTATIVE PROJECT PHOTOS

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

PHOTOGRAPHIC LOG

Client Name:	**Site Location:**	**Project No.:**
South Buffalo Charter School	154 South Ogden	0249-012-001

Photo No.	**Date**
1	02/07/12

Direction Photo Taken:
northwest

Description:
Test pit TP-02-2012 showing typical soil/fill material.

Photo No.	**Date**
2	02/07/12

Direction Photo Taken:

Description:
Test pit TP-03-2012 showing soil/fill profile.

Prepared By: *BCH*

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.:
South Buffalo Charter School	154 South Ogden	0249-012-001

Photo No.	Date
3	02/07/12

Direction Photo Taken:
northwest

Description:
Test pit TP-05-2012 showing broken square steel box 6-foot x 3-foot (~10.0 fbgs and empty)

Photo No.	Date
4	02/08/12

Direction Photo Taken:
northwest

Description:
Test pit TP-09-2012 showing typical native soil.

Prepared By: BCH

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.:
South Buffalo Charter School	154 South Ogden	0249-012-001

Photo No.	Date
5	02/09/12

Direction Photo Taken:
northwest

Description:
Boring TWM-1 (SB-1) showing typical geoprobe setup.

Photo No.	Date
6	02/09/12

Direction Photo Taken:
NA

Description:
Boring TMW-3 (SB-4) showing petroleum-impacted interval (12.0' - 16.0') recovered in macro-core.

Prepared By: *BCH*

APPENDIX B2

DECEMBER 2011
GEOTECHNICAL REPORT AND TEST PIT INVESTIGATION

(PROVIDED ELECTRONICALLY)

F- SOUTH BUFFALO CHARTER SCHOOL

EMPIRE GEO SERVICES, INC.
A SUBSIDIARY OF SJB SERVICES, INC.

CORPORATE/ BUFFALO OFFICE
5167 South Park Avenue
Hamburg, NY 14075
Phone: (716) 649-8110
Fax: (716) 649-8051

ALBANY OFFICE
PO Box 2199
Ballston Spa, NY 12020

5 Knobner Road
Mechanicville, NY 12118
Phone: (518) 899-7491
Fax: (518) 899-7496

CORTLAND OFFICE
60 Miller Street
Cortland, NY 13045
Phone: (607) 758-7182
Fax: (607) 758-7188

ROCHESTER OFFICE
535 Summit Point Drive
Henrietta, NY 14467
Phone: (585) 359-2730
Fax: (585) 359-9668

MEMBER
ACEC New York

December 22, 2011
Empire Project No. BD-11-151

South Buffalo Charter School
c/o Cannon Construction Services
2170 Whitehaven Road
Grand Island, New York 14072

Phone: 716-774-5961
Fax: 716-773-1394

Attention: Andy Schuler
aschuler@cannondesign.com

Reference: Report of Environmental Test Pit Investigation
Proposed Charter School
154 South Ogden Street
Buffalo, New York

Dear Andy,

As requested and authorized, Empire Geo-Services, Inc. (Empire) completed an environmental test pit investigation at the referenced site on November 30 - December 2, 2011. Our work was completed in accordance with our proposal PBD-11-198, dated November 9, 2011.

Background

Empire's affiliate, SJB Services, Inc. (SJB), completed a geotechnical subsurface investigation during October 2011 for the proposed charter school to be located at 154 South Ogden Street in Buffalo, New York. The investigation included the advancement of six test borings using hollow stem augers with standard split-spoon soil sampling.

Findings of this investigation indicated the presence of six to 23.5 feet of miscellaneous fill materials in the subsurface. A slight petroleum-like odor was also noted by the driller at test boring location B-5 at a depth of approximately 15 to 17 feet below grade. Some of the fill materials appeared to have an industrial origin.

Based on these findings, Empire completed an environmental investigation on October 27 and 28, 2011 including 10 test borings advanced to depths of 10 to 26 feet below ground surface using hollow stem augers with continuous split-spoon sampling in two-foot intervals.

Soils recovered from test borings B-7 and B-8 exhibited slightly elevated PID measurements of 2.1 to 35 parts per million. Petroleum-like odors were noted on soil samples collected at boring locations B-7 and B-8 from depths of 10 to 18 feet. Industrial fill materials were noted in borings B-7 and B-8 and asphalt and concrete fragments were encountered at B-14 and B-16. Two samples of the fill materials were submitted for chemical analysis. One of the samples was collected at B-8 at a depth of 16 to 18 feet, based on petroleum odors and PID readings. The other sample was composited from B-12 (4 to 8 feet) and B-13 (8 to 12 feet) where industrial fill materials were encountered. The selected soil samples were analyzed for Target Compound List (TCL) and New York State Department of Environmental Conservation Spill Technology and Remediation Series (STARS) listed volatile organic compounds (VOCs) compounds utilizing EPA Method 8260B, TCL semi-volatile organic compounds (SVOCs) per EPA Method 8270C, Target Analyte List (TAL) metals, and polychlorinated biphenyls (PCBs) utilizing EPA Method 8082A.

The lab data indicated that concentrations of arsenic, copper and lead were detected in the composite sample from borings B-12 and B-13 above their respective 6NYCRR Part 375 SCOs for residential and restricted residential site use. The detection of barium in sample B-12/ B-13 exceeded the residential SCO but was below the restricted residential SCOs. The remaining detections did not exceed their respective SCOs for either sample.

Subsurface Investigation

Based on these results, Empire completed a supplemental environmental investigation on November 30 through December 2, 2011 including the excavation of 22 test pits designated TP-1 through TP-22. The test pits were excavated to depths of 3.6 to 13.6 feet using a rubber-tire backhoe. The test pits were terminated when native soils were encountered. At some of the test pit locations, the backhoe could not excavate to the top of the native soil interface due to cave-in of the fill materials and reaching the practical excavation depth limit of the backhoe. At each location, the on-site geologist visually classified the subsurface soils, screened the soils with a photoionization detector (PID) for the presence of volatile organic compounds (VOCs), and prepared test pit logs including the soil types encountered, indications of potential contamination, and other pertinent observations and information. The test pit locations are illustrated on the attached site plan and test pit logs are attached.

Subsurface Conditions

Subsurface conditions encountered at 21 of the 22 test pit locations included 2.5 feet to more than 13 feet of miscellaneous fill materials containing sand, gravel, silt, clay, cobble to boulder-size concrete fragments, asphalt fragments, and bricks, with occasional occurrences of fly ash, white ash, glass, metal pipes, plastic pipes, rebar, and tree stumps. No miscellaneous fill was encountered at location TP-5. Beneath the fill, native soils typically consisted of silty sands.

Most of the miscellaneous fill materials appeared to consist of construction & demolition (C&D) debris. Fill materials of a more industrial origin were apparently encountered at two of the test pit locations. A seam of a fine black material that appeared to be fly ash was encountered at depths of six to 10 feet at test pit location TP-3. A black sandy material with a "sweet" chemical odor was encountered at depths of approximately 5'-13.2' at location TP-13, 9'-12' at location TP-15, and 7'-12.6' at location TP-17. The dashed line on the attached site plan indicates a rough approximation of the extent of this material.

Environmental Screening

Recovered soil samples were screened for volatile organic compounds (VOCs) using an Ion Science PhoCheck 1000 Photolonization Detector (PID) equipped with a 10.6 eV lamp. The PID will detect, if present, the aggregate concentration of many VOCs at a practical threshold of approximately 1-2 parts per million (ppm). The soils were also inspected for evidence of environmental degradation (i.e. discoloration, staining, odors, etc.).

Generally, elevated PID measurements were not encountered on subsurface materials excavated from the test pits. However, soils excavated from depths of approximately five to seven feet at location TP-14 exhibited slightly elevated PID measurements of 2.2 to 6.2 parts per million (ppm). As discussed above, a "sweet" chemical odor was noted on fill materials excavated from depths of approximately 5'-13.2' at location TP-13, 9'-12' at location TP-15, and 7'-12.6' at location TP-17. PID readings and noted observations are included on the attached test pit logs.

Soil Sampling

Empire's on-site geologist collected two samples of the industrial fill materials for chemical analysis. One sample of the apparent fly ash material was collected from test pit TP-3 and a sample of the black sandy material with a "sweet" chemical odor was collected from test pit TP-13. The samples were placed into pre-cleaned glass sampling containers, labeled with the date, time and location of the project and placed in an iced cooler at approximately 4-degrees Celsius for transport to Paradigm Environmental Services, Inc. (Paradigm) in Rochester, New York. Paradigm is a New York State ELAP certified environmental laboratory. Chain-of-custody documentation accompanied the samples.

Analytical Results

The two samples were analyzed for Target Compound List (TCL) volatile organic compounds (VOCs) compounds utilizing EPA Method 8260B, TCL semi-volatile organic compounds (SVOCs) plus aniline per EPA Method 8270C, and Target Analyte List (TAL) metals. The two samples were also analyzed for the following waste characterization parameters: Toxicity Characteristic Leaching Procedure (TCLP) VOCs, TCLP SVOCs plus aniline, TCLP metals, ignitability, corrosivity, and reactivity. Paradigm's analytical report is attached.

The lab detections that exceeded one or more 6NYCRR Part 375 Soil Cleanup Objectives (SCOs) are summarized in the following table. Additional detected analytes can be found in Paradigm's lab report.

The waste characterization lab data indicated that the industrial materials encountered in test pits TP-3 and TP-13 would be classified as non-hazardous waste.

154 South Ogden Street Site
Summary of Laboratory Detections
Exceeding One or More Part 375 Soil Cleanup Objectives
(All concentrations in mg/kg or ppm)

Element or Compound	TP-3	TP-13	SCOs Unrestr.	SCOs Resident.	SCOs Restrict. Resident.	SCOs Comm.	SCOs Indus.
SVOCs							
Anthracene		102 RR	100	100	100	500	1000
Benzo(a)anthracene		130 ALL	1	1	1	5.6	11
Benzo(a)pyrene		80.7 ALL	1	1	1	1	1.1
Benzo(b)fluoranthene		81 ALL	1	1	1	5.6	11
Benzo(k)fluoranthene		73.5 C	0.8	1	3.9	56	110
Chrysene		125 ALL	1	1	3.9	56	110
Fluoranthene		356 RR	100	100	100	500	1000
Fluorene		61.3 U	30	100	100	500	1000
Napthalene		67.3 U	12	100	100	500	1000
Phenanthrene		450 RR	100	100	100	500	1000
Pyrene		250 RR	100	100	100	500	1000
1,2-Dichlorobenzene		310 RR	1.1	100	100	500	1000
VOCs							
Acetone	0.488 U		0.05	100	100	500	1000
2-Butanone	0.065		NS	NS	NS	NS	NS
Chlorobenzene		115 RR	1.1	100	100	500	1000
1,2-Dichlorobenzene		99.6 U	1.1	100	100	500	1000
1,4-Dichlorobenzene		16.1 RR	1.8	9.8	13	130	250
Napthalene		13.9 U	12	100	100	500	1000
METALS							
arsenic		88.4 ALL	13	16	16	16	16
cadmium		48.7 C	2.5	2.5	4.3	9.3	60
chromium		701 RR	30	36	180	1500	6800
copper		847 C	50	270	270	270	10000
lead	237 U	3990 ALL	63	400	400	1000	3900
mercury	1.0 RR		0.18	0.81	0.81	2.8	5.7
nickel		180 R	30	140	310	310	10000
zinc	355 U	6020 R	109	2,200	10000	10000	10000

- U – Exceeds Unrestricted SCO
- R – Exceeds Residential SCO
- RR – Exceeds Restricted Residential SCO
- C – Exceeds Commercial SCO
- ALL – Exceeds Industrial SCO (and therefore all SCOs)
- NS - No standard given

As indicated in the table above, detected concentrations of a few VOCs, several SVOCs, and several metals exceeded one or more Part 375 SCOs for the sample collected from test pit TP-13. Also, the detected concentrations of four SVOCs and two metals exceeded the SCOs for all Part 375 site use types.

This report has been prepared for the exclusive use of South Buffalo Charter School c/o Cannon Construction Services for the specific application to the subject site in accordance with generally accepted environmental practices. If you have any questions or if we can provide further assistance, please contact our office at (716) 649-8110.

Respectfully submitted,

EMPIRE GEO SERVICES, INC.

Stephen Bochenek DRS
Stephen Bochenek
Engineering Geologist

David R. Steiner
David R. Steiner, PG
Senior Engineering Geologist
Environmental Services Manager

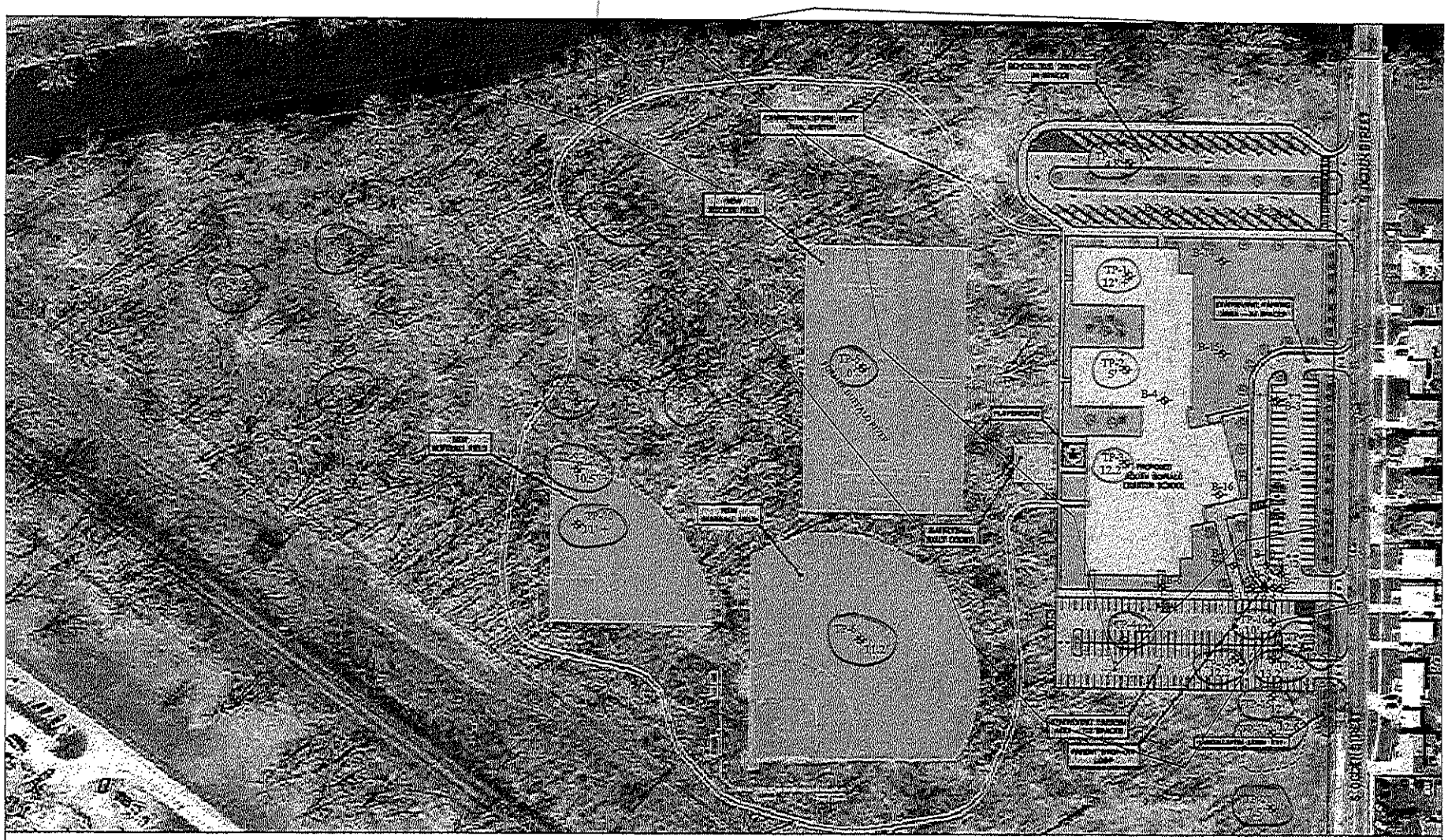
Attachments:

Site Plan

Test Pit Logs

Paradigm Lab Report

TP-19?



LEGEND:

B-1 INDICATES APPROXIMATE LOCATION AND DESIGNATION OF TEST BORING.

B.M. INDICATES APPROXIMATE BENCHMARK LOCATION- TOP VALVE NUT OF HYDRANT. ASSIGNED ARBITRARY ELEVATION = 100.00 FEET.

TP-1 INDICATES APPROXIMATE LOCATION AND DESIGNATION OF TEST PIT.

12.2' INDICATES DEPTH OF MISCELLANEOUS FILL

INDICATES APPROXIMATE EXTENT OF FILL WITH "SWEET" CHEMICAL ODOR

120 0 120

APPROXIMATE SCALE
1" = 120'

SJB SERVICES, P.L.L.C.

PROPOSED CHARTER SCHOOL
154 SOUTH OGDEN STREET
BUFFALO, NEW YORK

SUBSURFACE INVESTIGATION

DR.BY: WMA	SCALE: AS SHOWN	PROJ NO.: BD-11-157	
CHKD BY: SB	DATE: 11/17/11	FIGURE NO: 1	

SJB SERVICES, INC.

Western New York Office
5167 South Park Avenue
Hamburg, NY 14075
Phone: (716) 649-8110
Fax: (716) 649-8051

TEST PIT FIELD LOG

		DATE	30-Nov-11
PROJECT	PROPOSED CHARTER SCHOOL	LOCATION	154 SOUTH OGDEN STREET
CLIENT	CANNON CONSTRUCTION	TEST PIT NO.	TP-1
CONTRACTOR	SJB SERVICES	PROJECT NO.	BD-11-151
FIELD REP	S. BOCHENEK	WEATHER / TEMP	CLOUDY, LIGHT RAIN, 30s
EXCAVATION EQUIP	NEW HOLLAND BACK HOE	OPERATOR	A. KOSKE
GROUND ELEV		MAKE/ MODEL	FORD 550
TIME STARTED	0840	CAPACITY	0.3 CY
TIME FINISHED	1008	REACH	18.5 FT

DEPTH	SOIL DESCRIPTION	PID READING	EXCAV EFFORT
1'	Brown Silty CLAY, tr.sand, tr.roots, tr.brick (moist, FILL)	BG	E
2'	Grey Brown f-c GRAVEL, some f-c Sand, some Clayey SILT, little Brick, tr.slag, tr.cobble size Concrete (moist, FILL)	BG	D
3'		BG	D
4'	Grey to White boulder size CONCRETE, little cobble size Cutstone, tr.gravel, tr.sand, tr.silty clay (moist, FILL)	BG	D
5'		BG	D
6'		BG	D
7'	Grey f-c GRAVEL, some f-c Sand, little Clayey Silt, tr.brick (moist, FILL)	BG	D
8'		BG	M
9'		BG	M
10	Black SILT and Wood, little Brick, tr.metal (moist-wet, FILL) possible highly weathered wood)	BG	M
11'	Grades to Brown	BG	M
12'		BG	M
13'	Test Pit Complete at 12.0' Unable to Excavate Deeper - Beyond Reach of Backhoe		
14'			

Remarks:
PID - Photolonization Dector, measure in parts per million (ppm) BG = Background (<1ppm)
Test Pit widened to to large pieces of concrete
Water seeps present in concrete

ABREVIATIONS		PROP USED	
F - FINE	F/M - FINE TO MEDIUM	TRACE (TR.)	0-10%
C - COARSE	F/C-FINE/COARSE	LITTLE (LI.)	10 - 20%
GR - GRAY	M - MEDIUM	SOME (SO.)	20 -35%
BN - BROWN	V-VERY	AND	35 - 50%
YEL-YELLOW			

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TEST PIT FIELD LOG

PROJECT	PROPOSED CHARTER SCHOOL	DATE	30-Nov-11
CLIENT	CANNON CONSTRUCTION	LOCATION	154 SOUTH OGDEN STREET
CONTRACTOR	SJB SERVICES	TEST PIT NO.	TP-2
FIELD REP	S. BOCHENEK	PROJECT NO.	BD-11-151
		WEATHER / TEMP	CLOUDY, LIGHT RAIN, 30s
EXCAVATION EQUIP	NEW HOLLAND BACK HOE	OPERATOR	A. KOSKE
GROUND ELEV		MAKE/ MODEL	FORD 550
TIME STARTED	1012	CAPACITY	0.3 CY
TIME FINISHED	1038	REACH	18.5 FT

DEPTH	SOIL DESCRIPTION	PID READING	EXCAV EFFORT
1'	Brown Clayey SILT, little f-c Gravel, little f-c Sand, tr.roots little boulder size Concrete, little Brick (moist, FILL)	BG	M
2'	Excavated 3/4" Rebar at 2.0'	BG	D
3'		BG	D
4'	Excavated Plastic 5 gallon bucket at 3.3' Contains occasional Grey to Black Clayey Silt and f-c Gravel laminations	BG	D
5'		BG	M
6'	Tan Modeled Grey Clayey SILT (moist, ML)	BG	M
7'	Test Pit Complete at 6.0'		
8'			
9'			
10			
11'			
12'			
13'			
14'			

Remarks:
PID - Photoionization Dector, measure in parts per million (ppm) BG = Background (<1ppm)
Water seeps observed at 5.0'

ABREVIATIONS		PROP USED	
F - FINE	F/M - FINE TO MEDIUM	TRACE (TR.)	0-10%
C - COARSE	F/C-FINE/COARSE	LITTLE (LI.)	10 - 20%
GR - GRAY	M - MEDIUM	SOME (SO.)	20 -35%
BN - BROWN	V-VERY	AND	35 - 50%
YEL-YELLOW			

SJB SERVICES, INC.

Western New York Office
5167 South Park Avenue
Hamburg, NY 14075
Phone: (716) 649-8110
Fax: (716) 649-8051

TEST PIT FIELD LOG

PROJECT	PROPOSED CHARTER SCHOOL	DATE	30-Nov-11
CLIENT	CANNON CONSTRUCTION	LOCATION	164 SOUTH OGDEN STREET
CONTRACTOR	SJB SERVICES	TEST PIT NO.	TP-3
FIELD REP	S. BOCHENEK	PROJECT NO.	BD-11-151
		WEATHER / TEMP	CLOUDY, LIGHT RAIN, 30s
EXCAVATION EQUIP	NEW HOLLAND BACK HOE	OPERATOR	A. KOSKE
GROUND ELEV		MAKE/ MODEL	FORD 550
TIME STARTED	1048	CAPACITY	0.3 CY
TIME FINISHED	1205	REACH	18.5 FT

DEPTH	SOIL DESCRIPTION	PID READING	EXCAV EFFORT
1'	Brown Clayey SILT, some f-c Gravel, some f-c Sand, little boulder size concrete, tr.brick (moist, FILL)	BG	M
2'		BG	D
3'		BG	D
4'	Large Asphaltic Concrete fragment at 3.6'	BG	D
5'	Grey f-c GRAVEL, little f-c Sand, tr.clayey Silt (moist, FILL)	BG	D
6'		BG	D
7'	Grey Fine SAND, some Silt (moist, FILL; possible Fly Ash)	BG	M
8'		BG	E
9'		BG	E
10		BG	E
11'	Reddish Brown to White Ash, tr.glass (moist, FILL)	BG	E
12'		BG	E
13'	Grey SILT, little Fine SAND, tr.clay (moist-wet, ML)	BG	M
14'		BG	M
	Test Pit Complete at 13.6' Unable to Excavate Deeper - Beyond Reach of Backhoe		

Remarks:

PID - Photolonization Dector, measure in parts per million (ppm) BG = Background (<1ppm)
Unable to excavate beyond asphaltic concrete, reorienate backhoe and resumed.
Collected sample in Fly Ash and Ash

ABREVIATIONS		PROP USED	
F - FINE	F/M - FINE TO MEDIUM	TRACE (TR.)	0-10%
C - COARSE	F/C-FINE/COARSE	LITTLE (LI.)	10 - 20%
GR - GRAY	M - MEDIUM	SOME (SO.)	20 -35%
BN - BROWN	V-VERY	AND	35 - 50%
YEL-YELLOW			

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Hamburg, NY 14075
Phone: (716) 649-8110
Fax: (716) 649-8051

TEST PIT FIELD LOG

		DATE	30-Nov-11
PROJECT	PROPOSED CHARTER SCHOOL	LOCATION	154 SOUTH OGDEN STREET
CLIENT	CANNON CONSTRUCTION	TEST PIT NO.	TP-4
CONTRACTOR	SJB SERVICES	PROJECT NO.	BD-11-151
FIELD REP	S. BOCHENEK	WEATHER / TEMP	CLOUDY, LIGHT RAIN, 30s
EXCAVATION EQUIP	NEW HOLLAND BACK HOE	OPERATOR	A. KOSKE
GROUND ELEV		MAKE/ MODEL	FORD 550
TIME STARTED	1230	CAPACITY	0.3 CY
TIME FINISHED	1345	REACH	18.5 FT

DEPTH	SOIL DESCRIPTION	PID READING	EXCAV EFFORT
1'	Brown Clayey SILT, little f-c Gravel, little f-c Sand, tr.brick (moist, FILL)	BG	
2'	Excavate boulder size Concrete at 1.5'	BG	
3'	Excavate boulder size Asphalt at 2.2'	BG	
4'	Tan mottled Grey Clayey SILT, tr.brick (moist, FILL)	BG	
5'	Excavate boulder size Asphalt at 4.8'	BG	
6'	Large Metal Observed at 5.6' - unable to remove	BG	
7'	Brown Grades to Dark Grey f-c SAND, little f-c Gravel, little Silt, some brick, little wood, tr.asphalt, tr.glass, tr.metal (moist, FILL) Contains occasional tr.brick	BG	
8'	Excavate 1" Metal Pipe at 6.2' Contains tr.boulder size Concrete at 6.4'	BG	
9'		BG	
10	Grey Clayey SILT, little f-c Sand, tr.gavel, tr.wood, tr.brick, tr.glass (moist, FILL)	BG	
11'		BG	
12'		BG	
13'	Grey SILT, little Fine SAND, tr.clay (moist-wet, ML) Grey Fine SAND, some Silt, occasional Silty Clay laminations (moist, SM)	BG	
14'	Test Pit Complete at 13.0'		

Remarks:
PID - Photoionization Dector, measure in parts per million (ppm) BG = Background (<1ppm)
Extend Test Pit, Due to Test Pit Collasping after 6.0'
Water seeps observed at 3.2'

ABREVIATIONS		PROP USED	
F - FINE	F/M - FINE TO MEDIUM	TRACE (TR.)	0-10%
C - COARSE	F/C-FINE/COARSE	LITTLE (LI.)	10 - 20%
GR - GRAY	M - MEDIUM	SOME (SO.)	20 -35%
BN - BROWN	V-VERY	AND	35 - 50%
YEL-YELLOW			

SJB SERVICES, INC.

Western New York Office
5167 South Park Avenue
Hamburg, NY 14075
Phone: (716) 649-8110
Fax: (716) 649-8051

TEST PIT FIELD LOG

PROJECT	PROPOSED CHARTER SCHOOL	DATE	30-Nov-11
CLIENT	CANNON CONSTRUCTION	LOCATION	164 SOUTH OGDEN STREET
CONTRACTOR	SJB SERVICES	TEST PIT NO.	TP-5
FIELD REP	S. BOCHENEK	PROJECT NO.	BD-11-151
		WEATHER / TEMP	CLOUDY, LIGHT RAIN, 30s
EXCAVATION EQUIP	NEW HOLLAND BACK HOE	OPERATOR	A. KOSKE
GROUND ELEV		MAKE/ MODEL	FORD 550
TIME STARTED	1350	CAPACITY	0.3 CY
TIME FINISHED	1405	REACH	18.5 FT

DEPTH	SOIL DESCRIPTION	PID READING	EXCAV EFFORT
1'	Dark Brown Fine SAND, some Silt, tr.clay, tr.roots (moist, Topsoil)	BG	E
2'	Tan Fine SAND, some Silt (moist, SM)	BG	E
3'		BG	E
4'		BG	E
5'	Test Pit Complete at 3.6'		
6'			
7'			
8'			
9'			
10			
11'			
12'			
13'			
14'			

Remarks:
PID - Photoionization Dector, measure in parts per million (ppm) BG = Background (<1ppm)

ABREVIATIONS		PROP USED	
F - FINE	F/M - FINE TO MEDIUM	TRACE (TR.)	0-10%
C - COARSE	F/C-FINE/COARSE	LITTLE (LI.)	10 - 20%
GR - GRAY	M - MEDIUM	SOME (SO.)	20 -35%
BN - BROWN	V-VERY	AND	35 - 50%
YEL-YELLOW			

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TEST PIT FIELD LOG

PROJECT	PROPOSED CHARTER SCHOOL	DATE	30-Nov-11
CLIENT	CANNON CONSTRUCTION	LOCATION	154 SOUTH OGDEN STREET
CONTRACTOR	SJB SERVICES	TEST PIT NO.	TP-6
FIELD REP	S. BOCHENEK	PROJECT NO.	BD-11-151
		WEATHER / TEMP	CLOUDY, LIGHT RAIN, 30s
EXCAVATION EQUIP	NEW HOLLAND BACK HOE	OPERATOR	A. KOSKE
GROUND ELEV		MAKE/ MODEL	FORD 550
TIME STARTED	1441	CAPACITY	0.3 CY
TIME FINISHED	1549	REACH	18.5 FT

DEPTH	SOIL DESCRIPTION	PID READING	EXCAV EFFORT
1'	Brown to Grey Brown Clayey SILT, some f-c Sand, tr.roots (moist, FILL)	BG	E
2'		BG	E
3'	Contains tr.boulder size Concrete	BG	E
4'	Red BRICK, little f-c Sand, little wood, little Metal, tr.boulder size Concrete (moist, FILL)	BG	M
5'	Contains some f-c Sand, little f-c Gravel, little Clayey SILT, tr.tires	BG	M
6'	Excavated tree stump at 6.0'	BG	M
7'	Contains little tree trunks	BG	M
8'		BG	M
9'		BG	M
10	Brown to Grey f-c SAND, little f-c Gravel, little Clayey Silt, tr.brick, tr.glass, tr.metal (moist-wet, FILL)	BG	M
11'		BG	M
12'	Grey f-m SAND, little f-c Gravel, little Silt (wet, SP-SM)	BG	M
13'	Test Pit Complete at 11.8' Unable to Excavate Deeper - Beyond Reach of Backhoe		
14'			

Remarks:
PID - Photolonization Dector, measure in parts per million (ppm) BG = Background (<1ppm)
Test Pit collasping after 6.0' --- Free standing water excavated at 11.4'. Voids observed in the FILL from approximately 6' - 9'

ABREVIATIONS		PROP USED	
F - FINE	F/M - FINE TO MEDIUM	TRACE (TR.)	0-10%
C - COARSE	F/C-FINE/COARSE	LITTLE (LI.)	10 - 20%
GR - GRAY	M - MEDIUM	SOME (SO.)	20 -35%
BN - BROWN	V-VERY	AND	35 - 50%
YEL-YELLOW			

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TEST PIT FIELD LOG

		DATE	1-Dec-11
PROJECT	PROPOSED CHARTER SCHOOL	LOCATION	154 SOUTH OGDEN STREET
CLIENT	CANNON CONSTRUCTION	TEST PIT NO.	TP-7
CONTRACTOR	SJB SERVICES	PROJECT NO.	BD-11-151
FIELD REP	S. BOCHENEK	WEATHER / TEMP	SUNNY, COLD
EXCAVATION EQUIP	NEW HOLLAND BACK HOE	OPERATOR	A. KOSKE
GROUND ELEV		MAKE/ MODEL	FORD 550
TIME STARTED	0827	CAPACITY	0.3 CY
TIME FINISHED	0850	REACH	18.5 FT

DEPTH	SOIL DESCRIPTION	PID READING	EXCAV EFFORT
1'	Brown Clayey SILT, little f-c Sand, little f-c Gravel, some Brick, tr.boulder size Cutstone, tr.wood (moist, FILL)	BG	E
2'	Excavated 3/4" Rebar at 2.0'	BG	E
3'	Excavated 2" Plastic Pipe, contains tr.metal	BG	M
4'		BG	M
5'	Tan Fine SAND, some Silt (moist, SM)	BG	M
6'		BG	M
7'	Test Pit Complete at 6.0'		
8'			
9'			
10			
11'			
12'			
13'			
14'			

Remarks:
PID - Photoionization Dector, measure in parts per million (ppm) BG = Background (<1ppm)
Test Pit Collapses

ABREVIATIONS		PROP USED	
F - FINE	F/M - FINE TO MEDIUM	TRACE (TR.)	0-10%
C - COARSE	F/C-FINE/COARSE	LITTLE (LI.)	10 - 20%
GR - GRAY	M - MEDIUM	SOME (SO.)	20 -35%
BN - BROWN	V-VERY	AND	35 - 50%
YEL-YELLOW			

Western New York Office
5167 South Park Avenue
Hamburg, NY 14075
Phone: (716) 649-8110
Fax: (716) 649-8051

TEST PIT FIELD LOG

PROJECT	PROPOSED CHARTER SCHOOL	DATE	1-Dec-11
CLIENT	CANNON CONSTRUCTION	LOCATION	154 SOUTH OGDEN STREET
CONTRACTOR	SJB SERVICES	TEST PIT NO.	TP-8
FIELD REP	S. BOCHENEK	PROJECT NO.	BD-11-151
		WEATHER / TEMP	SUNNY, COLD
EXCAVATION EQUIP	NEW HOLLAND BACK HOE	OPERATOR	A. KOSKE
GROUND ELEV		MAKE/ MODEL	FORD 550
TIME STARTED	0855	CAPACITY	0.3 CY
TIME FINISHED	0915	REACH	18.5 FT

DEPTH	SOIL DESCRIPTION	PID READING	EXCAV EFFORT
1'	Grey f-c GRAVEL, some f-c Sand, little Clayey Silt (moist, FILL)	BG	E
2'	Brown f-c SAND, little f-c Gravel, little Silt, some Brick, tr.cinder blocks, tr.wood (moist, FILL)	BG	E
3'	Excavated 2" Steel Pipe at 2.5'	BG	E
4'		BG	E
5'	Tan Fine SAND, some Silt (moist, SM)	BG	E
6'	Test Pit Complete at 5.0		
7'			
8'			
9'			
10			
11'			
12'			
13'			
14'			

Remarks:
PID - Photoionization Dector, measure in parts per million (ppm) BG = Background (<1ppm)
Gravel layer varies in thickness

ABREVIATIONS		PROP USED	
F - FINE	F/M - FINE TO MEDIUM	TRACE (TR.)	0-10%
C - COARSE	F/C-FINE/COARSE	LITTLE (LI.)	10 - 20%
GR - GRAY	M - MEDIUM	SOME (SO.)	20 -35%
BN - BROWN	V-VERY	AND	35 - 50%
YEL-YELLOW			

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Western New York Office
5167 South Park Avenue
Hamburg, NY 14075
Phone: (716) 649-8110
Fax: (716) 649-8051

TEST PIT FIELD LOG

		DATE	1-Dec-11
PROJECT	PROPOSED CHARTER SCHOOL	LOCATION	154 SOUTH OGDEN STREET
CLIENT	CANNON CONSTRUCTION	TEST PIT NO.	TP-9
CONTRACTOR	SJB SERVICES	PROJECT NO.	BD-11-151
FIELD REP	S. BOCHENEK	WEATHER / TEMP	SUNNY, COLD
EXCAVATION EQUIP	NEW HOLLAND BACK HOE	OPERATOR	A. KOSKE
GROUND ELEV		MAKE/ MODEL	FORD 550
TIME STARTED	0920	CAPACITY	0.3 CY
TIME FINISHED	0955	REACH	18.5 FT

DEPTH	SOIL DESCRIPTION	PID READING	EXCAV EFFORT
1'	Light Brown f-c SAND, little f-c Gravel, little Silt, some Brick, tr.metal (moist, FILL)	BG	E
2'		BG	E
3'	Tan Fine SAND, some Silt, tr.brick (moist, FILL)	BG	E
4'	Contains little Brick, tr.metal, tr.wood, excavated 3 gallon air compressor tank	BG	M
5'	Brown f-c SAND, some Clayey Silt, little f-c Gravel, some Brick, tr.metal, tr.boulder size Concrete, tr.slag (moist, FILL)	BG	M
6'		BG	M
7'		BG	M
8'		BG	M
9'		BG	M
10		BG	M
11'		BG	M
12'	Test Pit Complete at 10.5'		
13'	Unable to Excavate Deeper - Beyond Reach of Backhoe		
14'			

Remarks:
PID - Photoionization Dector, measure in parts per million (ppm) BG = Background (<1ppm)
Test Pit continues to collaspe

ABREVIATIONS		PROP USED	
F - FINE	F/M - FINE TO MEDIUM	TRACE (TR.)	0-10%
C - COARSE	F/C-FINE/COARSE	LITTLE (LI.)	10 - 20%
GR - GRAY	M - MEDIUM	SOME (SO.)	20 -35%
BN - BROWN	V-VERY	AND	35 - 50%
YEL-YELLOW			

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5167 South Park Avenue
Hamburg, NY 14075
Phone: (716) 649-8110
Fax: (716) 649-8051

TEST PIT FIELD LOG

PROJECT	PROPOSED CHARTER SCHOOL	DATE	1-Dec-11
CLIENT	CANNON CONSTRUCTION	LOCATION	154 SOUTH OGDEN STREET
CONTRACTOR	SJB SERVICES	TEST PIT NO.	TP-10
FIELD REP	S. BOCHENEK	PROJECT NO.	BD-11-151
		WEATHER / TEMP	SUNNY, COLD
EXCAVATION EQUIP	NEW HOLLAND BACK HOE	OPERATOR	A. KOSKE
GROUND ELEV		MAKE/ MODEL	FORD 550
TIME STARTED	1009	CAPACITY	0.3 CY
TIME FINISHED	1050	REACH	18.5 FT

DEPTH	SOIL DESCRIPTION	PID READING	EXCAV EFFORT
1'	Grey to Brown f-c SAND, little Silt, little cobble size Blacktop, tr.brick (moist, FILL)	BG	E
2'	Becomes Brown	BG	E
3'	Brown Clayey SILT, little f-c Gravel, little f-c Sand, little Brick, little boulder size concrete (moist, FILL)	BG	M
4'	Excavated Pipe (2") at 3.0'	BG	M
5'		BG	M
6'		BG	M
7'	Contain little boulder size Cutstone	BG	D
8'		BG	D
9'	Contains some boulder size Concrete / Cutstone	BG	D
10		BG	D
11'		BG	D
12'	Test Pit Complete at 10.5' Unable to Excavate Deeper - Beyond Reach of Backhoe		
13'	Free Standing Water at 10.5' at Test Pit Completion		
14'			

Remarks:
PID - Photolonization Dector, measure in parts per million (ppm) BG = Background (<1ppm)
Test Pit continues to collaspe

ABREVIATIONS		PROP USED	
F - FINE	F/M - FINE TO MEDIUM	TRACE (TR.)	0-10%
C - COARSE	F/C-FINE/COARSE	LITTLE (LI.)	10 - 20%
GR - GRAY	M - MEDIUM	SOME (SO.)	20 -35%
BN - BROWN	V-VERY	AND	35 - 50%
YEL-YELLOW			

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Western New York Office
5167 South Park Avenue
Hamburg, NY 14075
Phone: (716) 649-8110
Fax: (716) 649-8051

TEST PIT FIELD LOG

PROJECT	PROPOSED CHARTER SCHOOL	DATE	1-Dec-11
CLIENT	CANNON CONSTRUCTION	LOCATION	154 SOUTH OGDEN STREET
CONTRACTOR	SJB SERVICES	TEST PIT NO.	TP-11
FIELD REP	S. BOCHENEK	PROJECT NO.	BD-11-151
		WEATHER / TEMP	SUNNY, COLD
EXCAVATION EQUIP	NEW HOLLAND BACK HOE	OPERATOR	A. KOSKE
GROUND ELEV		MAKE/ MODEL	FORD 550
TIME STARTED	1100	CAPACITY	0.3 CY
TIME FINISHED	1125	REACH	18.5 FT

DEPTH	SOIL DESCRIPTION	PID READING	EXCAV EFFORT
1'	Brown Clayey SILT, some f-c Sand, little f-c Gravel (moist, FILL)	BG	E
2'	Contains some Brick, tr.metal	BG	E
3'	Contains little boulder size Concrete, little Brick	BG	M
4'		BG	M
5'	Brown Clayey SILT and Fine Sand (moist, ML)	BG	M
6'	Tan Fine SAND, little Silt (moist, SM)	BG	E
7'		BG	E
8'	Test Pit Complete at 6.6'		
9'			
10			
11'			
12'			
13'			
14'			

Remarks:
PID - Photoionization Dector, measure in parts per million (ppm) BG = Background (<1ppm)

ABREVIATIONS		PROP USED	
F - FINE	F/M - FINE TO MEDIUM	TRACE (TR.)	0-10%
C - COARSE	F/C-FINE/COARSE	LITTLE (LI.)	10 - 20%
GR - GRAY	M - MEDIUM	SOME (SO.)	20 -35%
BN - BROWN	V-VERY	AND	35 - 50%
YEL-YELLOW			

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Western New York Office
5167 South Park Avenue
Hamburg, NY 14075
Phone: (716) 649-8110
Fax: (716) 649-8051

TEST PIT FIELD LOG

		DATE	1-Dec-11
PROJECT	PROPOSED CHARTER SCHOOL	LOCATION	154 SOUTH OGDEN STREET
CLIENT	CANNON CONSTRUCTION	TEST PIT NO.	TP-12
CONTRACTOR	SJB SERVICES	PROJECT NO.	BD-11-151
FIELD REP	S. BOCHENEK	WEATHER / TEMP	SUNNY, COLD
EXCAVATION EQUIP	NEW HOLLAND BACK HOE	OPERATOR	A. KOSKE
GROUND ELEV		MAKE/ MODEL	FORD 550
TIME STARTED	1140	CAPACITY	0.3 CY
TIME FINISHED	1216	REACH	18.5 FT

DEPTH	SOIL DESCRIPTION	PID READING	EXCAV EFFORT
1'	Brown Clayey SILT, some f-c Sand, tr.gravel, some Brick, tr.boulder size Cutstone (moist, FILL)	BG	E
2'	Excavated Concrete Stairs at 1.5'	BG	E
3'		BG	D
4'	Red BRICK, some boulder size Cutstone / Concrete, some Clayey Silt (moist, FILL)	BG	D
5'	Excavated Hotwater Tank at 3.7'	BG	D
6'		BG	M
7'	Tan Fine SAND, some Silt, tr.clay, tr.brick (moist, reworked)	BG	M
8'	Grey SILT, tr.sand, tr.clay, tr.organics (moist, ML)	BG	M
9'	Tan Fine SAND, some Silt, tr.clay (moist, SM)	BG	M
10			
11'	Test Pit Complete at 9.2'		
12'			
13'			
14'			

Remarks:
PID - Photolonization Dector, measure in parts per million (ppm) BG = Background (<1ppm)
Test Pit continues to collaspe

ABREVIATIONS		PROP USED	
F - FINE	F/M - FINE TO MEDIUM	TRACE (TR.)	0-10%
C - COARSE	F/C-FINE/COARSE	LITTLE (LI.)	10 - 20%
GR - GRAY	M - MEDIUM	SOME (SO.)	20 -35%
BN - BROWN	V-VERY	AND	35 - 50%
YEL-YELLOW			

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Western New York Office
5167 South Park Avenue
Hamburg, NY 14075
Phone: (716) 649-8110
Fax: (716) 649-8051

TEST PIT FIELD LOG

		DATE	1-Dec-11
PROJECT	PROPOSED CHARTER SCHOOL	LOCATION	154 SOUTH OGDEN STREET
CLIENT	CANNON CONSTRUCTION	TEST PIT NO.	TP-13
CONTRACTOR	SJB SERVICES	PROJECT NO.	BD-11-151
FIELD REP	S. BOCHENEK	WEATHER / TEMP	SUNNY, COLD
EXCAVATION EQUIP	NEW HOLLAND BACK HOE	OPERATOR	A. KOSKE
GROUND ELEV		MAKE/ MODEL	FORD 550
TIME STARTED	1255	CAPACITY	0.3 CY
TIME FINISHED	1345	REACH	18.5 FT

DEPTH	SOIL DESCRIPTION	PID READING	EXCAV EFFORT
1'	Brown f-c GRAVEL, some f-c Sand, little Clayey Silt, tr.brick, tr.boulder size Cutstone (moist, FILL)	BG	E
2'		BG	M
3'		BG	M
4'	Black f-c SAND, little f-c Gravel, little Silt, little cobble size Concrete, little Brick, tr.glas, tr.ash (moist, FILL, possible Cinders / Ash) Contains tr.brick at 4.0'	BG	D
5'		BG	D
6'		2.2	D
7'		6.2	M
8'		BG	M
9'		BG	M
10		BG	M
11'		BG	M
12'		BG	M
13'		BG	M
14'	Test Pit Complete at 13.2' Unable to Excavate Deeper - Beyond Reach of Backhoe		

Remarks:

PID - Photoionization Dector, measure in parts per million (ppm) BG = Background (<1ppm)

Sweet like odor at ~ 5' until Test Pit termination

Collected Analytical Sample from 6' - 8'

ABREVIATIONS		PROP USED	
F - FINE	F/M - FINE TO MEDIUM	TRACE (TR.)	0-10%
C - COARSE	F/C-FINE/COARSE	LITTLE (LI.)	10 - 20%
GR - GRAY	M - MEDIUM	SOME (SO.)	20 -35%
BN - BROWN	V-VERY	AND	35 - 50%
YEL-YELLOW			

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Western New York Office
5167 South Park Avenue
Hamburg, NY 14075
Phone: (716) 649-8110
Fax: (716) 649-8051

TEST PIT FIELD LOG

		DATE	1-Dec-11
PROJECT	PROPOSED CHARTER SCHOOL	LOCATION	154 SOUTH OGDEN STREET
CLIENT	CANNON CONSTRUCTION	TEST PIT NO.	TP-14
CONTRACTOR	SJB SERVICES	PROJECT NO.	BD-11-151
FIELD REP	S. BOCHENEK	WEATHER / TEMP	SUNNY, COLD
EXCAVATION EQUIP	NEW HOLLAND BACK HOE	OPERATOR	A. KOSKE
GROUND ELEV		MAKE/ MODEL	FORD 550
TIME STARTED	1350	CAPACITY	0.3 CY
TIME FINISHED	1425	REACH	18.5 FT

DEPTH	SOIL DESCRIPTION	PID READING	EXCAV EFFORT
1'	Brown Clayey SILT, little f-c Gravel, little f-c Sand, tr.brick (moist, FILL)	BG	E
2'	Excavate Brick Wall fragments at 1.5' Contains little boulder size Concrete	BG	E
3'		BG	E
4'	Tan Clayey SILT, some Fine Sand, little cobble size concrete (moist, reworked)	BG	E
5'		BG	E
6'		BG	E
7'	Brown f-c GRAVEL, some Silty Clay, little f-c Sand, tr.cobble size Concrete (moist, FILL)	BG	M
8'	Dark Grey f-c SAND, some Silt, little f-c Gravel, little boulder size Concrete, tr.brick, tr.wood (moist, FILL)	BG	M
9'		BG	M
10		BG	M
11'	Grades to Clayey Silt, some wood, little f-c Sand, little boulder size Concrete, tr.brick (moist, FILL)	BG	M
12'		BG	M
13'	Test Pit Complete at 12.2' Unable to Excavate Deeper - Beyond Reach of Backhoe	BG	M
14'			

Remarks:
PID - Photoionization Dector, measure in parts per million (ppm) BG = Background (<1ppm)

ABREVIATIONS		PROP USED	
F - FINE	F/M - FINE TO MEDIUM	TRACE (TR.)	0-10%
C - COARSE	F/C-FINE/COARSE	LITTLE (LI.)	10 - 20%
GR - GRAY	M - MEDIUM	SOME (SO.)	20 -35%
BN - BROWN	V-VERY	AND	35 - 50%
YEL-YELLOW			

SJB SERVICES, INC.

Western New York Office
5167 South Park Avenue
Hamburg, NY 14075
Phone: (716) 649-8110
Fax: (716) 649-8051

TEST PIT FIELD LOG

		DATE	1-Dec-11
PROJECT	PROPOSED CHARTER SCHOOL	LOCATION	154 SOUTH OGDEN STREET
CLIENT	CANNON CONSTRUCTION	TEST PIT NO.	TP-15
CONTRACTOR	SJB SERVICES	PROJECT NO.	BD-11-151
FIELD REP	S. BOCHENEK	WEATHER / TEMP	SUNNY, COLD
EXCAVATION EQUIP	NEW HOLLAND BACK HOE	OPERATOR	A. KOSKE
GROUND ELEV		MAKE/ MODEL	FORD 650
TIME STARTED	1430	CAPACITY	0.3 CY
TIME FINISHED	1500	REACH	18.5 FT

DEPTH	SOIL DESCRIPTION	PID READING	EXCAV EFFORT
1'	Brown Clayey SILT, little f-c Gravel, little f-c Sand (moist, FILL)	BG	E
2'	Contains little boulder size Concrete	BG	E
3'	Contains some boulder size Concrete	BG	E
4'		BG	M
5'		BG	M
6'	Brown f-c SAND, little f-c Gravel, some boulder size Concrete, tr.glass (moist, FILL)	BG	M
7'		BG	M
8'		BG	M
9'		BG	M
10	Black f-c SAND, some Silt, little f-c Gravel, tr.metal, tr.brick	BG	M
11'		BG	M
12'		BG	M
13'	Test Pit Complete at 12.0'		
14'	Unable to Excavate Deeper - Beyond Reach of Backhoe		

Remarks:
PID - Photoionization Dector, measure in parts per million (ppm) BG = Background (<1ppm)
Sweet like odor noted from 9' - 12'

ABREVIATIONS		PROP USED	
F - FINE	F/M - FINE TO MEDIUM	TRACE (TR.)	0-10%
C - COARSE	F/C-FINE/COARSE	LITTLE (LI.)	10 - 20%
GR - GRAY	M - MEDIUM	SOME (SO.)	20 -35%
BN - BROWN	V-VERY	AND	35 - 50%
YEL-YELLOW			

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5167 South Park Avenue
Hamburg, NY 14075
Phone: (716) 649-8110
Fax: (716) 649-8051

TEST PIT FIELD LOG

		DATE	1-Dec-11
PROJECT	PROPOSED CHARTER SCHOOL	LOCATION	154 SOUTH OGDEN STREET
CLIENT	CANNON CONSTRUCTION	TEST PIT NO.	TP-16
CONTRACTOR	SJB SERVICES	PROJECT NO.	BD-11-151
FIELD REP	S. BOCHENEK	WEATHER / TEMP	SUNNY, COLD
EXCAVATION EQUIP	NEW HOLLAND BACK HOE	OPERATOR	A. KOSKE
GROUND ELEV		MAKE/ MODEL	FORD 550
TIME STARTED	1506	CAPACITY	0.3 CY
TIME FINISHED	1547	REACH	18.5 FT

DEPTH	SOIL DESCRIPTION	PID READING	EXCAV EFFORT
1'	Brown Clayey SILT, little f-c Gravel, little f-c Sand (moist, FILL)	BG	E
2'	Contains little boulder size Concrete	BG	D
3'		BG	D
4'	Excavated 2" Steelpipe	BG	D
5'	Tan SILT, tr.sand, tr.clay, tr.brick, tr.wood (moist, reworked)	BG	M
6'	Contains little Wood	BG	M
7'		BG	M
8'	Brown f-c SAND, little Fine Gravel, little Silt, little wood (moist, FILL)	BG	M
9'		BG	M
10		BG	M
11'	Tan Modeled Fine SAND, little Silt (moist, SW)	BG	M
12'	Test Pit Complete at 11.0' Unable to Excavate Deeper - Beyond Reach of Backhoe		
13'			
14'			

Remarks:
PID - Photoionization Dector, measure in parts per million (ppm) BG = Background (<1ppm)

ABREVIATIONS		PROP USED	
F - FINE	F/M - FINE TO MEDIUM	TRACE (TR.)	0-10%
C - COARSE	F/C-FINE/COARSE	LITTLE (LI.)	10 - 20%
GR - GRAY	M - MEDIUM	SOME (SO.)	20 -35%
BN - BROWN	V-VERY	AND	35 - 50%
YEL-YELLOW			

SJB SERVICES, INC.

Western New York Office
5167 South Park Avenue
Hamburg, NY 14075
Phone: (716) 649-8110
Fax: (716) 649-8051

TEST PIT FIELD LOG

DATE	2-Dec-11		
PROJECT	PROPOSED CHARTER SCHOOL	LOCATION	154 SOUTH OGDEN STREET
CLIENT	CANNON CONSTRUCTION	TEST PIT NO.	TP-17
CONTRACTOR	SJB SERVICES	PROJECT NO.	BD-11-151
FIELD REP	S. BOCHENEK	WEATHER / TEMP	RAIN, COLD
EXCAVATION EQUIP	NEW HOLLAND BACK HOE	OPERATOR	A. KOSKE
GROUND ELEV		MAKE/ MODEL	FORD 550
TIME STARTED	0802	CAPACITY	0.3 CY
TIME FINISHED	0910	REACH	18.5 FT

DEPTH	SOIL DESCRIPTION	PID READING	EXCAV EFFORT
1'	Brown Clayey SILT, little f-c Gravel, little f-c Sand, tr.cobble size Cutstone (moist, FILL)	BG	E
2'		BG	E
3'		BG	E
4'		BG	M
5'	Grey f-c GRAVEL, little f-c Sand, tr.silt, tr.wood, tr.boulder size Cutstone (moist, FILL) Excavated Tree Trunk at 5.2'	BG	M
6'		BG	D
7'	Black f-c SAND, little f-c Gravel, little Silt (moist, FILL)	bG	D
8'	Contains some f-c Gravel, tr.brick, tr.cobble size Cutstone	BG	M
9'		BG	M
10	Contains tr.boulder size Cutstone	BG	M
11'		BG	M
12'		BG	M
13'		BG	M
14'	Test Pit Complete at 12.6' Unable to Excavate Deeper - Beyond Reach of Backhoe		

Remarks:

PID - Photoionization Dector, measure in parts per million (ppm) BG = Background (<1ppm)

Sweet Like Odor Noted from 7.0' - 12.6'

ABREVIATIONS		PROP USED	
F - FINE	F/M - FINE TO MEDIUM	TRACE (TR.)	0-10%
C - COARSE	F/C-FINE/COARSE	LITTLE (LI.)	10 - 20%
GR - GRAY	M - MEDIUM	SOME (SO.)	20 -35%
BN - BROWN	V-VERY	AND	35 - 50%
YEL-YELLOW			

SJB SERVICES, INC.

Western New York Office
5167 South Park Avenue
Hamburg, NY 14075
Phone: (716) 649-8110
Fax: (716) 649-8051

TEST PIT FIELD LOG

PROJECT	PROPOSED CHARTER SCHOOL	DATE	2-Dec-11
CLIENT	CANNON CONSTRUCTION	LOCATION	154 SOUTH OGDEN STREET
CONTRACTOR	SJB SERVICES	TEST PIT NO.	TP-18
FIELD REP	S. BOCHENEK	PROJECT NO.	BD-11-151
		WEATHER / TEMP	RAIN, COLD
EXCAVATION EQUIP	NEW HOLLAND BACK HOE	OPERATOR	A. KOSKE
GROUND ELEV		MAKE/ MODEL	FORD 550
TIME STARTED	1009	CAPACITY	0.3 CY
TIME FINISHED	1021	REACH	18.5 FT

DEPTH	SOIL DESCRIPTION	PID READING	EXCAV EFFORT
1'	Brown SILT, tr.sand (moist, FILL, reworked) Contains tr.cobble Rock fragments, tr.brick	BG	E
2'		BG	E
3'		BG	E
4'		BG	E
5'	Grey to Brown SILT, tr.sand, tr.clay (moist, ML)	BG	M
6'		BG	M
7'		BG	M
8'	Test Pit Complete at 7.2'		
9'			
10			
11'			
12'			
13'			
14'			

Remarks:
PID - Photoionization Dector, measure in parts per million (ppm) BG = Background (<1ppm)

ABREVIATIONS		PROP USED	
F - FINE	F/M - FINE TO MEDIUM	TRACE (TR.)	0-10%
C - COARSE	F/C-FINE/COARSE	LITTLE (LI.)	10 - 20%
GR - GRAY	M - MEDIUM	SOME (SO.)	20 -35%
BN - BROWN	V-VERY	AND	35 - 50%
YEL-YELLOW			

SJB SERVICES, INC.

Western New York Office
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Hamburg, NY 14075
Phone: (716) 649-8110
Fax: (716) 649-8051

TEST PIT FIELD LOG

PROJECT	PROPOSED CHARTER SCHOOL	DATE	2-Dec-11
CLIENT	CANNON CONSTRUCTION	LOCATION	154 SOUTH OGDEN STREET
CONTRACTOR	SJB SERVICES	TEST PIT NO.	TP-19
FIELD REP	S. BOCHENEK	PROJECT NO.	BD-11-151
		WEATHER / TEMP	RAIN, COLD
EXCAVATION EQUIP	NEW HOLLAND BACK HOE	OPERATOR	A. KOSKE
GROUND ELEV		MAKE/ MODEL	FORD 550
TIME STARTED	1038	CAPACITY	0.3 CY
TIME FINISHED	1122	REACH	18.5 FT

DEPTH	SOIL DESCRIPTION	PID READING	EXCAV EFFORT
1'	Brown f-c SAND, little Silt, tr.gravel, little brick, tr.metal (moist, FILL)	BG	E
2'	Excavated 1" Metal Pipe at 1.2'	BG	M
3'	Contains some Brick, some boulder size Cutstone / Concrete, tr.wood	BG	M
4'		BG	M
5'		BG	M
6'		BG	M
7'		BG	M
8'		BG	M
9'		BG	M
10		BG	M
11'	Brown Silty CLAY, some f-c Sand, little Wood, tr.glass (moist, FILL)	BG	M
12'		BG	M
13'	Test Pit Complete at 12.4'	BG	M
14'	Unable to Excavate Deeper - Beyond Reach of Backhoe		

Remarks:

PID - Photoionization Dector, measure in parts per million (ppm) BG = Background (<1ppm)

Test Pit continues to collaspe. Discarded Concrete present in area.

ABREVIATIONS		PROP USED	
F - FINE	F/M - FINE TO MEDIUM	TRACE (TR.)	0-10%
C - COARSE	F/C-FINE/COARSE	LITTLE (LI.)	10 - 20%
GR - GRAY	M - MEDIUM	SOME (SO.)	20 -35%
BN - BROWN	V-VERY	AND	35 - 50%
YEL-YELLOW			

SJB SERVICES, INC.

Western New York Office
5167 South Park Avenue
Hamburg, NY 14075
Phone: (716) 649-8110
Fax: (716) 649-8051

TEST PIT FIELD LOG

PROJECT	PROPOSED CHARTER SCHOOL	DATE	2-Dec-11
CLIENT	CANNON CONSTRUCTION	LOCATION	154 SOUTH OGDEN STREET
CONTRACTOR	SJB SERVICES	TEST PIT NO.	TP-20
FIELD REP	S. BOCHENEK	PROJECT NO.	BD-11-151
		WEATHER / TEMP	RAIN, COLD
EXCAVATION EQUIP	NEW HOLLAND BACK HOE	OPERATOR	A. KOSKE
GROUND ELEV		MAKE/ MODEL	FORD 550
TIME STARTED	1140	CAPACITY	0.3 CY
TIME FINISHED	1210	REACH	18.5 FT

DEPTH	SOIL DESCRIPTION	PID READING	EXCAV EFFORT
1'	Tan to Brown f-c SAND, some Silt, some Brick, tr.gravel (moist, FILL)	BG	E
2'		BG	E
3'		BG	E
4'		BG	E
5'		BG	E
6'	Tan Fine SAND, some Silt (moist, SM)	BG	E
7'		BG	E
8'	Test Pit Complete at 7.0'		
9'			
10			
11'			
12'			
13'			
14'			

Remarks:
PID - Photolonization Dector, measure in parts per million (ppm) BG = Background (<1ppm)

ABREVIATIONS		PROP USED	
F - FINE	F/M - FINE TO MEDIUM	TRACE (TR.)	0-10%
C - COARSE	F/C-FINE/COARSE	LITTLE (LI.)	10 - 20%
GR - GRAY	M - MEDIUM	SOME (SO.)	20 -35%
BN - BROWN	V-VERY	AND	35 - 50%
YEL-YELLOW			

SJB SERVICES, INC.

Western New York Office
5167 South Park Avenue
Hamburg, NY 14075
Phone: (716) 649-8110
Fax: (716) 649-8051

TEST PIT FIELD LOG

		DATE	2-Dec-11
PROJECT	PROPOSED CHARTER SCHOOL	LOCATION	154 SOUTH OGDEN STREET
CLIENT	CANNON CONSTRUCTION	TEST PIT NO.	TP-21
CONTRACTOR	SJB SERVICES	PROJECT NO.	BD-11-151
FIELD REP	S. BOCHENEK	WEATHER / TEMP	RAIN, COLD
EXCAVATION EQUIP	NEW HOLLAND BACK HOE	OPERATOR	A. KOSKE
GROUND ELEV		MAKE/ MODEL	FORD 550
TIME STARTED	1315	CAPACITY	0.3 CY
TIME FINISHED	1350	REACH	18.5 FT

DEPTH	SOIL DESCRIPTION	PID READING	EXCAV EFFORT
1'	Tan Clayey SILT, tr.sand, tr.gravel (moist, FILL, reworked)	BG	E
2'		BG	E
3'	Becomes Brown, contains little f-c Sand	BG	E
4'		BG	E
5'	Grey Silty CLAY, some boulder size Concrete / Cutstone (moist, FILL)	BG	M
6'		BG	M
7'	Contains No. 1 Crushed Stone seam	BG	M
8'		BG	M
9'	Grey SILT, some Fine Sand, tr.clay (moist, ML)	BG	M
10	Test Pit Complete at 8.7'		
11'			
12'			
13'			
14'			

Remarks:
PID - Photolonization Dector, measure in parts per million (ppm) BG = Background (<1ppm)

ABREVIATIONS		PROP USED	
F - FINE	F/M - FINE TO MEDIUM	TRACE (TR.)	0-10%
C - COARSE	F/C-FINE/COARSE	LITTLE (LI.)	10 - 20%
GR - GRAY	M - MEDIUM	SOME (SO.)	20 -35%
BN - BROWN	V-VERY	AND	35 - 50%
YEL-YELLOW			

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Hamburg, NY 14075
Phone: (716) 649-8110
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TEST PIT FIELD LOG

PROJECT	PROPOSED CHARTER SCHOOL	DATE	2-Dec-11
CLIENT	CANNON CONSTRUCTION	LOCATION	154 SOUTH OGDEN STREET
CONTRACTOR	SJB SERVICES	TEST PIT NO.	TP-22
FIELD REP	S. BOCHENEK	PROJECT NO.	BD-11-151
		WEATHER / TEMP	RAIN, COLD
EXCAVATION EQUIP	NEW HOLLAND BACK HOE	OPERATOR	A. KOSKE
GROUND ELEV		MAKE/ MODEL	FORD 550
TIME STARTED	1359	CAPACITY	0.3 CY
TIME FINISHED	1457	REACH	18.5 FT

DEPTH	SOIL DESCRIPTION	PID READING	EXCAV EFFORT
1'	Grey Clayey SILT, some f-c Sand, tr.gravel, tr.brick (moist, FILL)	BG	E
2'		BG	E
3'	Dark Brown to Grey f-c SAND, some Silt, tr.gravel, tr.glass (moist, FILL)	BG	E
4'		BG	M
5'	Rust Brown f-c SAND, some Glass, little f-c Gravel (moist, FILL; possible ash)	BG	M
6'	Contains tr.metal	BG	M
7'	Dark Brown SILT, some f-c Sand, tr.cinders, tr.gravel (moist, FILL)	BG	M
8'		BG	M
9'	Contains tr.boulder size Concrete / Cutstone	BG	M
10		BG	M
11'		BG	M
12'		BG	M
13'		BG	M
14'	Test Pit Complete at 12.5' Unable to Excavate Deeper - Beyond Reach of Backhoe		

Remarks:
PID - Photoionization Dector, measure in parts per million (ppm) BG = Background (<1ppm)
56' West of Street; Align with SW Corner of House, 2nd House North of Mineral Springs

ABREVIATIONS		PROP USED	
F - FINE	F/M - FINE TO MEDIUM	TRACE (TR.)	0-10%
C - COARSE	F/C-FINE/COARSE	LITTLE (LI.)	10 - 20%
GR - GRAY	M - MEDIUM	SOME (SO.)	20 -35%
BN - BROWN	V-VERY	AND	35 - 50%
YEL-YELLOW			

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Analytical Report Cover Page

Empire Geo Services

For Lab Project # 11-5269
Issued December 14, 2011
This report contains a total of 20 pages

The reported results relate only to the samples as they have been received by the laboratory.

Any noncompliant QC parameters having impact on the data are flagged or documented on the final report.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

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The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of frequently used data flags and their meaning:

"<" = analyzed for but not detected at or above the reporting limit.
"E" = Result has been estimated, calibration limit exceeded.
"Z" = See case narrative.
"D" = Duplicate results outside QC limits. May indicate a non-homogenous matrix.
"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.
"B" = Method blank contained trace levels of analyte. Refer to included method blank report.

PARADIGM ENVIRONMENTAL SERVICES, INC. 179 Lake Avenue, Rochester, NY 14608 Office: (585) 647-2530 Fax: (585) 647-3311

LAB REPORT FOR SOIL/SOLID/SLUDGE pH MEASURED IN WATER

Client: Empire Geo Services

Client Job Site: Proposed Charter School
154 S. Ogden Street

Client Job No.: N/A

Lab Project No.: 11-5269

Sample Type: Soil
Method: SW846 9045C

Date Sampled: 11/30-12/1/2011
Date Received: 12/06/2011
Date Analyzed: 12/07/2011

Lab Sample No.	Field ID No.	Field Location	pH Results (S.U.)
17378	N/A	TP-3	8.11 @ 20.6 °C
17379	N/A	TP-13	6.42 @ 20.6 °C

ELAP ID No.:10958

Comments:

Approved By: _____
Bruce Hoogesteger, Technical Director

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LAB REPORT FOR FLASHPOINT ANALYSIS

Client: Empire Geo Services

Client Job Site: Proposed Charter School
154 S. Ogden Street

Client Job No.: N/A

Lab Project No.: 11-5269

Sample Type: Soil
Method: SW846 1010

Date Sampled: 11/30-12/1/2011
Date Received: 12/06/2011
Date Analyzed: 12/08/2011

Lab Sample No.	Field ID No.	Field Location	Flashpoint Results (°C)
17378	N/A	TP-3	>70.0
17379	N/A	TP-13	>70.0

ELAP ID No.:10958

Comments:

Approved By: _____
Bruce Hoogesteger, Technical Director

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PARADIGM
ENVIRONMENTAL SERVICES, INC.
179 Lake Avenue Rochester New York 14608 (585) 647-2530 FAX (585) 647-3311

LABORATORY REPORT FOR REACTIVITY

Client: Empire Geo Services

Client Job Site: Proposed Charter School
154 S. Ogden Street

Client Job No.: N/A

Field Location: TP-3

Lab Project No.: 11-5269
Lab Sample No.: 17378

Sample Type: Soil

Date Sampled: 11/30/2011
Date Received: 12/6/2011

Parameter	Date Analyzed	Method Reference	Results (mg/kg)
Reactive Cyanide	12/13/2011	EPA 335.4 / SW 7.3.3.2	<100
Reactive Sulfide	12/14/2011	SW 7.3.4.2	<100

ELAP ID.No.: 10709

Comments: Reactivity results are reported as received.

Approved By: _____
Bruce Hoogesteger, Technical Director

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PARADIGM ENVIRONMENTAL SERVICES, INC. 179 Lake Avenue Rochester New York 14608 (585) 647-2530 FAX (585) 647-3311

LABORATORY REPORT FOR REACTIVITY

Client: Empire Geo Services

Client Job Site: Proposed Charter School
154 S. Ogden Street

Client Job No.: N/A

Field Location: TP-13

Lab Project No.: 11-5269
Lab Sample No.: 17379

Sample Type: Soil

Date Sampled: 12/1/2011
Date Received: 12/6/2011

Parameter	Date Analyzed	Method Reference	Results (mg/kg)
Reactive Cyanide	12/13/2011	EPA 335.4 / SW 7.3.3.2	<100
Reactive Sulfide	12/14/2011	SW 7.3.4.2	<100

ELAP ID.No.: 10709

Comments: Reactivity results are reported as received.

Approved By: _____
Bruce Hoogesteger, Technical Director

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File ID: Empire Geo 11-5269

PARADIGM
ENVIRONMENTAL SERVICES, INC.
179 Lake Avenue, Rochester, NY 14608 Office: (585) 647-2530 Fax: (585) 647-3311

LAB REPORT FOR TAL METALS ANALYSIS IN SOLIDS

Client: Empire Geo Services

Client Job Site: Proposed Charter School
154 S. Ogden Street

Client Job No.: N/A

Field Location: TP-3

Field ID No.: N/A

Lab Project No.: 11-5269
Lab Sample No.: 17378

Sample Type: Soil

Date Sampled: 11/30/2011
Date Received: 12/06/2011

Parameter	Date Analyzed	Analytical Method	Result (mg/kg)
Aluminum	12/08/2011	SW846 3050/6010	8150
Antimony	12/08/2011	SW846 3050/6010	< 7.60
Arsenic	12/08/2011	SW846 3050/6010	8.53
Barium	12/08/2011	SW846 3050/6010	168
Beryllium	12/08/2011	SW846 3050/6010	0.761
Cadmium	12/08/2011	SW846 3050/6010	0.822
Calcium	12/08/2011	SW846 3050/6010	10400
Chromium	12/08/2011	SW846 3050/6010	14.3
Cobalt	12/08/2011	SW846 3050/6010	8.85
Copper	12/08/2011	SW846 3050/6010	36.4
Iron	12/08/2011	SW846 3050/6010	25700
Lead	12/08/2011	SW846 3050/6010	237
Magnesium	12/08/2011	SW846 3050/6010	3040
Manganese	12/08/2011	SW846 3050/6010	606
Mercury	12/09/2011	SW846 7471	1.00
Nickel	12/08/2011	SW846 3050/6010	22.4
Potassium	12/08/2011	SW846 3050/6010	869
Selenium	12/08/2011	SW846 3050/6010	< 1.27
Silver	12/08/2011	SW846 3050/6010	< 1.27
Sodium	12/08/2011	SW846 3050/6010	322
Thallium	12/08/2011	SW846 3050/6010	< 3.17
Vanadium	12/08/2011	SW846 3050/6010	23.2
Zinc	12/08/2011	SW846 3050/6010	355

ELAP ID No.:10958

Comments:

Approved By: _____
Bruce Hoogesteger, Technical Director

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PARADIGM
ENVIRONMENTAL SERVICES, INC.
179 Lake Avenue, Rochester, NY 14608 Office: (585) 647-2530 Fax: (585) 647-3311

LAB REPORT FOR TAL METALS ANALYSIS IN SOLIDS

Client: Empire Geo Services

Client Job Site: Proposed Charter School
154 S. Ogden Street

Client Job No.: N/A

Field Location: TP-13

Field ID No.: N/A

Lab Project No.: 11-5269
Lab Sample No.: 17379

Sample Type: Soil

Date Sampled: 12/01/2011
Date Received: 12/06/2011

Parameter	Date Analyzed	Analytical Method	Result (mg/kg)
Aluminum	12/08/2011	SW846 3050/6010	4210
Antimony	12/08/2011	SW846 3050/6010	117
Arsenic	12/08/2011	SW846 3050/6010	88.4
Barium	12/08/2011	SW846 3050/6010	265
Beryllium	12/08/2011	SW846 3050/6010	< 0.686
Cadmium	12/08/2011	SW846 3050/6010	48.7
Calcium	12/08/2011	SW846 3050/6010	37000
Chromium	12/08/2011	SW846 3050/6010	701
Cobalt	12/08/2011	SW846 3050/6010	13.7
Copper	12/08/2011	SW846 3050/6010	847
Iron	12/08/2011	SW846 3050/6010	131000
Lead	12/08/2011	SW846 3050/6010	3990
Magnesium	12/08/2011	SW846 3050/6010	1810
Manganese	12/08/2011	SW846 3050/6010	1030
Mercury	12/09/2011	SW846 7471	0.0794
Nickel	12/08/2011	SW846 3050/6010	180
Potassium	12/08/2011	SW846 3050/6010	475
Selenium	12/08/2011	SW846 3050/6010	< 1.37
Silver	12/08/2011	SW846 3050/6010	2.33
Sodium	12/08/2011	SW846 3050/6010	468
Thallium	12/08/2011	SW846 3050/6010	< 3.43
Vanadium	12/08/2011	SW846 3050/6010	31.6
Zinc	12/08/2011	SW846 3050/6010	6020

ELAP ID No.:10958

Comments:

Approved By: _____
Bruce Hoogesteger, Technical Director

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File ID:115269.xls

PARADIGM ENVIRONMENTAL SERVICES, INC. 179 Lake Avenue, Rochester, NY 14608 Office: (585) 647-2530 Fax : (585) 647-3311

LABORATORY REPORT FOR TCLP RCRA METALS ANALYSIS

Client: Empire Geo Services

Client Job Site: Proposed Charter School
154 S. Ogden Street

Client Job No.: N/A

Lab Project No.: 11-5269

Sample Type: TCLP Extract

Method: SW846 1311/3005/6010,7470

Date Sampled: 11/30-12/01/2011

Date Received: 12/06/2011

Date Analyzed: 12/08-09/2011

Lab Sample ID	Field ID	Field Location	Ag (mg/L)	As (mg/L)	Ba (mg/L)	Cd (mg/L)	Cr (mg/L)	Pb (mg/L)	Se (mg/L)	Hg (mg/L)
17378	N/A	TP-3	<0.050	<0.100	1.80	<0.025	<0.050	0.427	<0.100	<0.0020
17379	N/A	TP-13	<0.050	<0.100	<0.500	<0.025	<0.050	2.37	<0.100	<0.0020

ELAP ID No.: 10958

	Ag (mg/L)	As (mg/L)	Ba (mg/L)	Cd (mg/L)	Cr (mg/L)	Pb (mg/L)	Se (mg/L)	Hg (mg/L)
Regulatory Limit (mg/L):	5.0	5.0	100	1.0	5.0	5.0	1.0	0.2

Comments:

Approved By: _____

Bruce Hoogesteger, Technical Director

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File ID:116269.xls

PARADIGM
179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Semi-Volatile Analysis Report for Soils/Solids/Sludges

Client: Empire Geo Services

Client Job Site:	Proposed Charter School 154 S. Ogden Street	**Lab Project Number:**	11-5269
		Lab Sample Number:	17378
Client Job Number:	N/A		
Field Location:	TP-3	**Date Sampled:**	11/30/2011
Field ID Number:	N/A	**Date Received:**	12/06/2011
Sample Type:	Soil	**Date Analyzed:**	12/09/2011

Base / Neutrals	Results in ug / Kg	Base / Neutrals	Results in ug / Kg
Acenaphthene	< 3,740	Dibenz (a,h) anthracene	< 3,740
Anthracene	< 3,740	Fluoranthene	< 3,740
Benzo (a) anthracene	< 3,740	Fluorene	< 3,740
Benzo (a) pyrene	< 3,740	Indeno (1,2,3-cd) pyrene	< 3,740
Benzo (b) fluoranthene	< 3,740	Naphthalene	< 3,740
Benzo (g,h,i) perylene	< 3,740	Phenanthrene	< 3,740
Benzo (k) fluoranthene	< 3,740	Pyrene	< 3,740
Chrysene	< 3,740	Acenaphthylene	< 3,740
Diethyl phthalate	< 3,740	1,2-Dichlorobenzene	< 3,740
Dimethyl phthalate	< 9,360	1,3-Dichlorobenzene	< 3,740
Butylbenzylphthalate	< 3,740	1,4-Dichlorobenzene	< 3,740
Di-n-butyl phthalate	< 3,740	1,2,4-Trichlorobenzene	< 3,740
Di-n-octylphthalate	< 3,740	Nitrobenzene	< 3,740
Bis (2-ethylhexyl) phthalate	< 3,740	2,4-Dinitrotoluene	< 3,740
2-Chloronaphthalene	< 3,740	2,6-Dinitrotoluene	< 3,740
Hexachlorobenzene	< 3,740	Bis (2-chloroethyl) ether	< 3,740
Hexachloroethane	< 3,740	Bis (2-chloroisopropyl) ether	< 3,740
Hexachlorocyclopentadiene	< 3,740	Bis (2-chloroethoxy) methane	< 3,740
Hexachlorobutadiene	< 3,740	4-Bromophenyl phenyl ether	< 3,740
N-Nitroso-di-n-propylamine	< 3,740	4-Chlorophenyl phenyl ether	< 3,740
N-Nitrosodiphenylamine	< 3,740	Benzidine	< 9,360
N-Nitrosodimethylamine	< 3,740	3,3'-Dichlorobenzidine	< 3,740
Isophorone	< 3,740	4-Chloroaniline	< 3,740
Benzyl alcohol	< 9,360	2-Nitroaniline	< 9,360
Dibenzofuran	< 3,740	3-Nitroaniline	< 9,360
2-Methylnapthalene	< 3,740	4-Nitroaniline	< 9,360
Aniline	< 3,740		

Acids	Results in ug / Kg	Acids	Results in ug / Kg
Phenol	< 3,740	2-Methylphenol	< 3,740
2-Chlorophenol	< 3,740	3&4-Methylphenol	< 3,740
2,4-Dichlorophenol	< 3,740	2,4-Dimethylphenol	< 3,740
2,6-Dichlorophenol	< 3,740	2-Nitrophenol	< 3,740
2,4,5-Trichlorophenol	< 9,360	4-Nitrophenol	< 9,360
2,4,6-Trichlorophenol	< 3,740	2,4-Dinitrophenol	< 9,360
Pentachlorophenol	< 9,360	4,6-Dinitro-2-methylphenol	< 9,360
4-Chloro-3-methylphenol	< 3,740	Benzoic acid	< 9,360

ELAP Number 10958 | Analytical Method: EPA 8270C | Data File: S60276.D

Prep Method: EPA 3550C

Comments: ug / Kg = microgram per Kilogram

Reporting limit elevated due to non-chromatographable interferences

Signature: _____

Bruce Hoogesteger: Technical Director

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179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Semi-Volatile Analysis Report for Soils/Solids/Sludges

Client: Empire Geo Services

Client Job Site:	Proposed Charter School 154 S. Ogden Street	Lab Project Number:	11-5269
		Lab Sample Number:	17379
Client Job Number:	N/A		
Field Location:	TP-13	Date Sampled:	12/01/2011
Field ID Number:	N/A	Date Received:	12/06/2011
Sample Type:	Soil	Date Analyzed:	12/09/2011

Base / Neutrals	Results in ug / Kg	Base / Neutrals	Results in ug / Kg
Acenaphthene	< 43,000	Dibenz (a,h) anthracene	< 43,000
Anthracene	102,000	Fluoranthene	356,000
Benzo (a) anthracene	130,000	Fluorene	61,300
Benzo (a) pyrene	80,700	Indeno (1,2,3-cd) pyrene	< 43,000
Benzo (b) fluoranthene	81,000	Naphthalene	67,300
Benzo (g,h,i) perylene	< 43,000	Phenanthrene	450,000
Benzo (k) fluoranthene	73,500	Pyrene	250,000
Chrysene	125,000	Acenaphthylene	< 43,000
Diethyl phthalate	< 43,000	1,2-Dichlorobenzene	310,000
Dimethyl phthalate	< 107,000	1,3-Dichlorobenzene	< 43,000
Butylbenzylphthalate	< 43,000	1,4-Dichlorobenzene	< 43,000
Di-n-butyl phthalate	< 43,000	1,2,4-Trichlorobenzene	< 43,000
Di-n-octylphthalate	< 43,000	Nitrobenzene	< 43,000
Bis (2-ethylhexyl) phthalate	< 43,000	2,4-Dinitrotoluene	< 43,000
2-Chloronaphthalene	< 43,000	2,6-Dinitrotoluene	< 43,000
Hexachlorobenzene	< 43,000	Bis (2-chloroethyl) ether	< 43,000
Hexachloroethane	< 43,000	Bis (2-chloroisopropyl) ether	< 43,000
Hexachlorocyclopentadiene	< 43,000	Bis (2-chloroethoxy) methane	< 43,000
Hexachlorobutadiene	< 43,000	4-Bromophenyl phenyl ether	< 43,000
N-Nitroso-di-n-propylamine	< 43,000	4-Chlorophenyl phenyl ether	< 43,000
N-Nitrosodiphenylamine	< 43,000	Benzidine	< 107,000
N-Nitrosodimethylamine	< 43,000	3,3'-Dichlorobenzidine	< 43,000
Isophorone	< 43,000	4-Chloroaniline	< 43,000
Benzyl alcohol	< 107,000	2-Nitroaniline	< 107,000
Dibenzofuran	< 43,000	3-Nitroaniline	< 107,000
2-Methylnapthalene	< 43,000	4-Nitroaniline	< 107,000
Aniline	< 43,000		

Acids	Results in ug / Kg	Acids	Results in ug / Kg
Phenol	< 43,000	2-Methylphenol	< 43,000
2-Chlorophenol	< 43,000	3&4-Methylphenol	< 43,000
2,4-Dichlorophenol	< 43,000	2,4-Dimethylphenol	< 43,000
2,6-Dichlorophenol	< 43,000	2-Nitrophenol	< 43,000
2,4,5-Trichlorophenol	< 107,000	4-Nitrophenol	< 107,000
2,4,6-Trichlorophenol	< 43,000	2,4-Dinitrophenol	< 107,000
Pentachlorophenol	< 107,000	4,6-Dinitro-2-methylphenol	< 107,000
4-Chloro-3-methylphenol	< 43,000	Benzoic acid	< 107,000

ELAP Number 10958 Analytical Method: EPA 8270C Data File: S60277.D
Prep Method: EPA 3550C

Comments: ug / Kg = microgram per Kilogram

Signature: _____
Bruce Hoogesteger: Technical Director

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt.

PARADIGM
179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Semi-Volatile Analysis Report for TCLP Extract

Client: Empire Geo Services

Client Job Site:	Proposed Charter School 154 S. Ogden Street	**Lab Project Number:** **Lab Sample Number:**	11-5269 17378
Client Job Number:	N/A		
Field Location:	TP-3	**Date Sampled:**	11/30/2011
Field ID Number:	N/A	**Date Received:**	12/06/2011
Sample Type:	TCLP Extract	**Date Analyzed:**	12/09/2011

Base / Neutrals	Results in ug / L	Regulatory Limits in ug / L
1,4-Dichlorobenzene	< 40.0	7,500
2,4-Dinitrotoluene	< 40.0	130
Hexachlorobenzene	< 40.0	130
Hexachlorobutadiene	< 40.0	500
Hexachloroethane	< 40.0	3000
Nitrobenzene	< 40.0	2000
Pyridine	< 40.0	5000
Aniline	< 40.0	N/A

Acids	Results in ug / L	Regulatory Limits in ug / L
Cresols (as m,p,o-Cresol)	< 40.0	200,000
Pentachlorophenol	< 100	100,000
2,4,5-Trichlorophenol	< 100	400,000
2,4,6-Trichlorophenol	< 40.0	2000

ELAP Number 10958 Analytical Method: EPA 8270C Data File: S60280.D
Prep Method: EPA 1311 & 3510C

Comments: ug / L = microgram per Liter

Signature: _____
Bruce Hoogesteger: Technical Director

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PARADIGM
179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Semi-Volatile Analysis Report for TCLP Extract

Client: Empire Geo Services

Client Job Site:	Proposed Charter School 154 S. Ogden Street	**Lab Project Number:**	11-5269
		Lab Sample Number:	17379
Client Job Number:	N/A		
Field Location:	TP-13	**Date Sampled:**	12/01/2011
Field ID Number:	N/A	**Date Received:**	12/06/2011
Sample Type:	TCLP Extract	**Date Analyzed:**	12/09/2011

Base / Neutrals	Results In ug / L	Regulatory Limits In ug / L
1,4-Dichlorobenzene	71.1	7,500
2,4-Dinitrotoluene	< 40.0	130
Hexachlorobenzene	< 40.0	130
Hexachlorobutadiene	< 40.0	500
Hexachloroethane	< 40.0	3000
Nitrobenzene	< 40.0	2000
Pyridine	< 40.0	5000
Aniline	162	N/A

Acids	Results In ug / L	Regulatory Limits In ug / L
Cresols (as m,p,o-Cresol)	< 40.0	200,000
Pentachlorophenol	< 100	100,000
2,4,5-Trichlorophenol	< 100	400,000
2,4,6-Trichlorophenol	< 40.0	2000

ELAP Number 10958 Analytical Method: EPA 8270C Data File: S60281.D
Prep Method: EPA 1311 & 3510C

Comments: ug / L = microgram per Liter

Signature: _____
Bruce Hoogesteger, Technical Director

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PARADIGM
179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Soils/Solids/Sludges

Client: Empire Geo Services

Client Job Site:	Proposed Charter School 154 S. Ogden Street	**Lab Project Number:**	11-5269
		Lab Sample Number:	17378
Client Job Number:	N/A		
Field Location:	TP-3	**Date Sampled:**	11/30/2011
Field ID Number:	N/A	**Date Received:**	12/06/2011
Sample Type:	Soil	**Date Analyzed:**	12/12/2011

Halocarbons	Results in ug / Kg
Bromodichloromethane	< 11.7
Bromomethane	< 11.7
Bromoform	< 29.3
Carbon Tetrachloride	< 11.7
Chloroethane	< 11.7
Chloromethane	< 11.7
2-Chloroethyl vinyl Ether	< 58.5
Chloroform	< 11.7
Dibromochloromethane	< 11.7
1,1-Dichloroethane	< 11.7
1,2-Dichloroethane	< 11.7
1,1-Dichloroethene	< 11.7
cis-1,2-Dichloroethene	< 11.7
trans-1,2-Dichloroethene	< 11.7
1,2-Dichloropropane	< 11.7
cis-1,3-Dichloropropene	< 11.7
trans-1,3-Dichloropropene	< 11.7
Methylene chloride	< 29.3
1,1,2,2-Tetrachloroethane	< 11.7
Tetrachloroethene	< 11.7
1,1,1-Trichloroethane	< 11.7
1,1,2-Trichloroethane	< 11.7
Trichloroethene	< 11.7
Trichlorofluoromethane	< 11.7
Vinyl chloride	< 11.7

Aromatics	Results in ug / Kg
Benzene	< 11.7
Chlorobenzene	< 11.7
Ethylbenzene	< 11.7
Toluene	< 11.7
m,p-Xylene	< 11.7
o-Xylene	< 11.7
Styrene	< 29.3
1,2-Dichlorobenzene	< 11.7
1,3-Dichlorobenzene	< 11.7
1,4-Dichlorobenzene	< 11.7

Ketones	Results in ug / Kg
Acetone	488
2-Butanone	64.9
2-Hexanone	< 29.3
4-Methyl-2-pentanone	< 29.3

Miscellaneous	Results in ug / Kg
Carbon disulfide	< 11.7
Vinyl acetate	< 29.3

ELAP Number 10958 Method: EPA 8260B Data File: V94066.D

Comments: ug / Kg = microgram per Kilogram

Signature: _____

Bruce Hoogesteger: Technical Director

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PARADIGM
179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Soils/Solids/Sludges (Additional STARS Compounds)

Client: Empire Geo Services

Client Job Site:	Proposed Charter School 154 S. Ogden Street	**Lab Project Number:**	11-5269
		Lab Sample Number:	17378
Client Job Number:	N/A		
Field Location:	TP-3	**Date Sampled:**	11/30/2011
Field ID Number:	N/A	**Date Received:**	12/06/2011
Sample Type:	Soil	**Date Analyzed:**	12/12/2011

Compound	Results in ug / Kg	Compound	Results in ug / Kg
n-Butylbenzene	< 11.7	1,2,4-Trimethylbenzene	< 11.7
sec-Butylbenzene	< 11.7	1,3,5-Trimethylbenzene	< 11.7
tert-Butylbenzene	< 11.7		
n-Propylbenzene	< 11.7	**Miscellaneous**	
Isopropylbenzene	< 11.7	Methyl tert-butyl Ether	< 11.7
p-Isopropyltoluene	< 11.7		
Naphthalene	< 29.3		

ELAP Number 10958 Method: EPA 8260B Data File: V94066.D

Comments: ug / Kg = microgram per Kilogram

Signature: _____

Bruce Hoogesteger, Technical Director

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PARADIGM
179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Soils/Solids/Sludges

Client: Empire Geo Services

Client Job Site:	Proposed Charter School 154 S. Ogden Street	**Lab Project Number:**	11-5269
		Lab Sample Number:	17379
Client Job Number:	N/A		
Field Location:	TP-13	**Date Sampled:**	12/01/2011
Field ID Number:	N/A	**Date Received:**	12/06/2011
Sample Type:	Soil	**Date Analyzed:**	12/13/2011

Halocarbons	Results in ug / Kg
Bromodichloromethane	< 2,840
Bromomethane	< 2,840
Bromoform	< 7,090
Carbon Tetrachloride	< 2,840
Chloroethane	< 2,840
Chloromethane	< 2,840
2-Chloroethyl vinyl Ether	< 14,200
Chloroform	< 2,840
Dibromochloromethane	< 2,840
1,1-Dichloroethane	< 2,840
1,2-Dichloroethane	< 2,840
1,1-Dichloroethene	< 2,840
cis-1,2-Dichloroethene	< 2,840
trans-1,2-Dichloroethene	< 2,840
1,2-Dichloropropane	< 2,840
cis-1,3-Dichloropropene	< 2,840
trans-1,3-Dichloropropene	< 2,840
Methylene chloride	< 7,090
1,1,2,2-Tetrachloroethane	< 2,840
Tetrachloroethene	< 2,840
1,1,1-Trichloroethane	< 2,840
1,1,2-Trichloroethane	< 2,840
Trichloroethene	< 2,840
Trichlorofluoromethane	< 2,840
Vinyl chloride	< 2,840

Aromatics	Results in ug / Kg
Benzene	< 2,840
Chlorobenzene	115,000
Ethylbenzene	< 2,840
Toluene	< 2,840
m,p-Xylene	< 2,840
o-Xylene	< 2,840
Styrene	< 7,090
1,2-Dichlorobenzene	99,500
1,3-Dichlorobenzene	< 2,840
1,4-Dichlorobenzene	16,100

Ketones	Results in ug / Kg
Acetone	< 14,200
2-Butanone	< 14,200
2-Hexanone	< 7,090
4-Methyl-2-pentanone	< 7,090

Miscellaneous	Results in ug / Kg
Carbon disulfide	< 2,840
Vinyl acetate	< 7,090

ELAP Number 10958 Method: EPA 8260B Data File: V94100.D

Comments: ug / Kg = microgram per Kilogram

Signature:

Bruce Hoogesteger: Technical Director

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PARADIGM
179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Soils/Solids/Sludges (Additional STARS Compounds)

Client: Empire Geo Services

Client Job Site:	Proposed Charter School 154 S. Ogden Street	**Lab Project Number:**	11-5269
		Lab Sample Number:	17379
Client Job Number:	N/A		
Field Location:	TP-13	**Date Sampled:**	12/01/2011
Field ID Number:	N/A	**Date Received:**	12/06/2011
Sample Type:	Soil	**Date Analyzed:**	12/13/2011

Compound	Results in ug / Kg	Compound	Results in ug / Kg
n-Butylbenzene	< 2,840	1,2,4-Trimethylbenzene	< 2,840
sec-Butylbenzene	< 2,840	1,3,5-Trimethylbenzene	< 2,840
tert-Butylbenzene	< 2,840		
n-Propylbenzene	< 2,840	**Miscellaneous**	
Isopropylbenzene	< 2,840	Methyl tert-butyl Ether	< 2,840
p-Isopropyltoluene	< 2,840		
Naphthalene	13,900		

ELAP Number 10958 Method: EPA 8260B Data File: V94100.D

Comments: ug / Kg = microgram per Kilogram

Signature:

Bruce Hoogesteger: Technical Director

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PARADIGM
179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for TCLP Extract

Client: Empire Geo Services

Client Job Site:	Proposed Charter School 154 S. Ogden Street	**Lab Project Number:**	11-5269
		Lab Sample Number:	17378
Client Job Number:	N/A		
Field Location:	TP-3	**Date Sampled:**	11/30/2011
Field ID Number:	N/A	**Date Received:**	12/06/2011
Sample Type:	TCLP Extract	**Date Analyzed:**	12/09/2011

Compound	Results in ug / L	Regulatory Limits in ug / L
Benzene	< 20.0	500
2-Butanone	< 100	200,000
Carbon Tetrachloride	< 20.0	500
Chlorobenzene	< 20.0	100,000
Chloroform	< 20.0	6,000
1,2-Dichloroethane	< 20.0	500
1,1-Dichloroethene	< 20.0	700
Tetrachloroethene	< 20.0	700
Trichloroethene	< 20.0	500
Vinyl chloride	< 20.0	200

ELAP Number 10958 Method: EPA 8260B Data File: V94031.D

Comments: ug / L = microgram per Liter

Signature: _____

Bruce Hoogesteger: Technical Director

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PARADIGM ENVIRONMENTAL SERVICES, INC.
179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for TCLP Extract

Client: Empire Geo Services

Client Job Site:	Proposed Charter School 154 S. Ogden Street	**Lab Project Number:**	11-5269
		Lab Sample Number:	17379
Client Job Number:	N/A		
Field Location:	TP-13	**Date Sampled:**	12/01/2011
Field ID Number:	N/A	**Date Received:**	12/06/2011
Sample Type:	TCLP Extract	**Date Analyzed:**	12/09/2011

Compound	Results in ug / L	Regulatory Limits in ug / L
Benzene	< 20.0	500
2-Butanone	< 100	200,000
Carbon Tetrachloride	< 20.0	500
Chlorobenzene	1,640	100,000
Chloroform	< 20.0	6,000
1,2-Dichloroethane	< 20.0	500
1,1-Dichloroethene	< 20.0	700
Tetrachloroethene	< 20.0	700
Trichloroethene	< 20.0	500
Vinyl chloride	< 20.0	200

ELAP Number 10958 Method: EPA 8260B Data File: V94032.D

Comments: ug / L = microgram per Liter

Signature: _____

Bruce Hoogesteger: Technical Director

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PARADIGM ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue
Rochester, NY 14608
(585) 647-2530 • (800) 724-1997
FAX: (585) 647-3311

CHAIN OF CUSTODY

REPORT TO:
COMPANY: Empire Geo Services
ADDRESS:
CITY: STATE: ZIP:
PHONE: FAX:
ATTN:

INVOICE TO:
COMPANY:
ADDRESS:
CITY: STATE: ZIP:
PHONE: FAX:
ATTN:

LAB PROJECT #: 11-5269
CLIENT PROJECT #:

TURNAROUND TIME: (WORKING DAYS)
STD: [X] 5 | [ ] 3 | [ ] 2 | [ ] 1 | OTHER: [ ]

PROJECT NAME/SITE NAME: Proposed Charter School
154 S. Ogden Street

COMMENTS: Please Email Results To. dsteiner@ejbegs.com

QUOTE #:

REQUESTED ANALYSIS

DATE	TIME	COMPOSITE	GRAB	SAMPLE LOCATION/FIELD ID	MATRIX	NUMBER OF CONTAINERS	8260 STARS + TCL	8270 TCL + Aniline	TAL Metals + Hg	TCLP 8260	TCLP 8270 + Aniline	TCLP Metals	Tantalum	Corrosivity	Reactivity	REMARKS	PARADIGM LAB SAMPLE NUMBER
11-30-11	1212	X		TP-3	Soil	2	X	X	X	X	X	X	X	X	X	Requested Analysis:	
12-1-11	1348	X		TP-3	Soil	3	X	X	X	X	X	X	X	X	X	TCL+STARS VOCs+TICs	173788
3																TCL SVOCs + Aniline	173789
4																TAL metals + Mercury	
5																TCLP VOCs (TCL)	
6																TCLP TCL SVOCs + Aniline	
7																TCLP metals	
8																Ignitability	
9																Corrosivity	
10																Reactivity	

LAB USE ONLY BELOW THIS LINE

Sample Condition: Per NELAC/ELAP 210/241/242/243/244

Receipt Parameter	NELAC Compliance	
Container Type:	Y [X]	N [ ]
Comments:		
Preservation:	Y [ ]	N [ ]
Comments: NA		
Holding Time:	Y [X]	N [ ]
Comments:		
Temperature:	Y [X]	N [ ]
Comments: 6° iced		

Sampled By: D. Ball	Date/Time: 12/6/11	Total Cost:
Relinquished By: D. Ball	Date/Time: 12/6/11	
Received By:	Date/Time:	P.I.F.
Received @ Lab By: Mikepoen	Date/Time: 12/6/11 1408	

179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

CHAIN OF CUSTODY 11207024

ACK 1 of 1

REPORT TO:		INVOICE TO:			
COMPANY:	Paradigm Environmental	COMPANY:	Same	LAB PROJECT #:	CLIENT PROJECT #:
ADDRESS:		ADDRESS:			
CITY: STATE: ZIP:		CITY: STATE: ZIP:		TURNAROUND TIME: (WORKING DAYS)	
PHONE: FAX:		PHONE: FAX:		STD	OTHER
PROJECT NAME/SITE NAME:		ATTN:	Jane Daloia	ATTN: Meridith Dillman	1 2 3 X 5
		COMMENTS:	Please email results to khansen@paradigmenv.com and jdaloia@paradigmenv.com	Date Due: 12/14/11	

REQUESTED ANALYSIS

	DATE	TIME	COMPOSITE	GRAB	SAMPLE LOCATION/FIELD ID	MATRIX	NUMBER OF CONTAINERS	Reactivity										REMARKS	PARADIGM LAB SAMPLE NUMBER
1	11/30	1212			11-5269-17378	soil	1	X											001
2	12/1	1348			↓ 17379	↓	1	X											002
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			

LAB USE ONLY BELOW THIS LINE

Sample Condition: Per NELAC/ELAP 210/241/242/243/244

Receipt Parameter	NELAC Compliance	
Container Type:	Y ☐	N ☐
Comments:		
Preservation:	Y ☑	N ☐
Comments:		
Holding Time:	Y ☐	N ☐
Comments:		
Temperature: 10°	Y ☐	N ☐
Comments:		

Client

Sampled By — Date/Time

Michelle Doperalski 12/6/11 1600

Relinquished By — Date/Time

Fedex

Received By — Date/Time

[signature] 12-7-11 10:05 Am

Received @ Lab By — Date/Time

Total Cost:

P.I.F.

APPENDIX B3

JULY 2011
PHASE I ENVIRONMENTAL SITE ASSESSMENT

(PROVIDED ELECTRONICALLY)

LCS INC.
Environmental and Real Estate Consultants

CORPORATE OFFICES
WATERFRONT VILLAGE
40 LA RIVIERE DRIVE, SUITE 120
BUFFALO, NEW YORK 14202

TEL: 800.474.6802
716.845.6145
FAX: 716.845.6164
www.lenderconsulting.com

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BUFFALO
NEW YORK

ROCHESTER
NEW YORK

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PITTSBURGH
PENNSYLVANIA

ALLENTOWN
PENNSYLVANIA

BALTIMORE
MARYLAND

SALISBURY
MARYLAND

CLEVELAND
OHIO

CITIZENS PRELIMINARY ENVIRONMENTAL SITE ASSESSMENT

CITIZENS PROJECT NO. 42201124836
LCS PROJECT NO. 11B2011.21

UNDEVELOPED/VACANT/WOODED/FALLOW LAND
154 SOUTH OGDEN STREET
BUFFALO, NEW YORK

PREPARED FOR:

Mr. Garry Kikutis c/o Inez Robinson
RBS Citizens, NA
Real Estate Risk Services
1701 JFK Boulevard, PJ2250
Philadelphia, Pennsylvania 19103

PREPARED BY:

LCS, INC.
40 LA RIVIERE DRIVE, SUITE 120
BUFFALO, NEW YORK 14202
(716) 845-6145, (800) 474-6802

ENVIRONMENTAL AND REAL ESTATE CONSULTANTS
Based on a Site Investigation conducted on July 20, 2011,
by
Ms. Megan Kahabka

Mark V. LiPuma, CEO, Citizen's Liaison

Alan Schenk
General Manager

Chris Kibler
Environmental Analyst/Technician

July 26, 2011

1.0 EXECUTIVE SUMMARY

The subject property is identified as undeveloped/vacant/wooded/fallow land located at 154 South Ogden Street, City of Buffalo, Erie County, New York with an SBL/Tax identification number of 123.15-1-4. The subject property tax map shows the subject property to measure approximately 26.6 acres. The subject property is located in a moderately developed commercial and residential area. Public utility companies provide the following services to the subject property: electric, natural gas, water, and sanitary sewer.

The subject property is generally level at road grade at approximately 575-590 feet above mean sea level. There are no surficial water bodies (including pits, ponds, or lagoons) located within the boundaries of the subject property.

1.1 Purpose

The purpose of this Citizens Preliminary Environmental Site Assessment is to: (i) provide an objective third party opinion as to the environmental status or condition of the subject property; (ii) identify any recognized environmental conditions: presence or likely presence of any hazardous substances or petroleum products on the subject property under conditions that indicate an existing release, past release, or material threat of release; (iii) recommend any additional testing or investigation warranted by the findings of the Citizens Preliminary Environmental Site Assessment and provide cost estimates for such additional scope of work; and, (iv) gather preliminary information regarding the general compliance of the subject property with applicable environmental laws, regulations, and permits.

1.2 Scope of Services/Methodology

The scope of services were intended to meet the most recent standards promulgated by the American Society of Testing and Materials (ASTM) including the "Standard Practice for Environmental Site Assessments: Phase I Process" (Designation E 1527-00) in addition to the terms and conditions of the Master Environmental Consulting Agreement between LCS and Citizens Bank of Massachusetts, including Attachment A and the Approved Scope of Work, provided by the Client. LCS acknowledges that the requirements of the Master Environmental Consulting Agreement supercede and take precedence over the ASTM Standard Practice.

1.3 Findings

We have performed a Preliminary Environmental Site Assessment in conformance with the scope and limitation of ASTM Practice E 1527 and the terms and conditions of the Master Environmental Consulting Agreement between LCS and Citizens Bank of Massachusetts, including Attachment A and the Approved Scope of Work, provided by the Client for the property identified as undeveloped/vacant/wooded/fallow land located at 154 South Ogden Street, City of Buffalo, Erie County, New York. Any exceptions to, or deletions from, this practice are described in Section 8.0 of the report. This assessment did not reveal evidence of recognized environmental conditions in connection with the subject property except for the following:

- Railroad tracks were identified south and west of the subject property.

While not considered recognized environmental conditions under the ASTM standard, LCS notes the following:

- Asphalt, concrete and general debris were noted dumped along a gas pipeline pathway along the northern property boundary.
- According to the EDR report, the subject property is located within a 100-year flood zone and the National Wetlands Inventory. Additionally, mapped soil units, Teel silt loam and Wayland silt loam, reportedly present on-site, are classified as potentially hydric and hydric soils, respectively. Therefore, there is the potential for the presence of wetlands on the subject property.

1.4 Conclusion

1.4.1 Citizens Risk Rating

Citizens Bank has established a risk ranking system for properties involved in an environmental site assessment, which include an assignment of "low," "medium," and "high" risk. The Risk Ratings are based on general guidelines found within the Citizens Bank Master Environmental Consulting Agreement. Based upon LCS experience, analysis, research, and investigation of the subject property and in conjunction with the requirements and general guidelines of the aforementioned agreement; LCS, Inc. assigns a **low** rating for this property.

This is due to the lack of visual or historic evidence indicating the past release or potential release of Oil or Hazardous Materials (OHM) that could adversely impact the value or environmental condition of the subject property.

1.4.2 Property Transfer Requirements

LCS is unaware of required notifications, investigations and/or remedial obligations of designated parties upon transfer, inter alia, closure requirements, or the execution of commercial transactions applicable to this subject property other than typical real estate disclosure requirements under the state's real property law and the disclosure of Lead-based paint issues (residential/multifamily) at the subject property.

1.5 Recommendations

Based upon the information obtained, researched, and reviewed by LCS during the preparation of this report, and in conformance with the terms and conditions of the Master Environmental Consulting Agreement; the following recommendations are offered for the bank's consideration.

1) Based upon the information obtained, researched, and reviewed by LCS during the preparation of this report, and in conformance with the terms and conditions of the Master Environmental Consulting Agreement, LCS makes no recommendations for further study at the subject property, subject to the conclusions and Risk Rating noted above.

2.0 SITE DESCRIPTION

2.1 Site Location and Legal Description

The subject property is identified as undeveloped/vacant/wooded/fallow land located at 154 South Ogden Street, City of Buffalo, Erie County, New York. The subject property, SBL No. 123.15-1-4, measures approximately 26.6 acres. The book and page associated with the subject property has been identified as 11064-1956.

2.2 Site and Vicinity Characteristics

The subject property is located in a moderately developed commercial and residential area. Nearby/adjacent properties include the following: North: Buffalo River; South: fallow land with a cell phone tower; East: residential; West: fallow land and railroad tracks.

2.3 Site Improvements

2.3.1 Structures and Improvements

The subject property is approximately 26.6 acres in size.

2.3.2 Roads

The subject property was noted to include green areas and trees.

2.3.3 Heating Source

This assessment did not reveal evidence of petroleum or other storage tanks (ASTs and USTs) discovered during the site inspection. There was no evidence of historic storage tanks at the subject property.

2.3.4 Sanitary Sewer Disposal

Municipal sanitary and storm sewers are available for connection to the subject property; however, such is not yet connected. Operations on the subject property are not believed to produce wastewaters that require treatment or monitoring before release to the municipal sewer system.

This assessment did not reveal evidence of a current or historic private septic system or cesspool on the subject property.

2.3 Site Improvements (continued):

2.3.5 Water Supply

A municipal water supply system is available for connection to the subject property. It should be noted that the on-site water supply is in conformance with the City of Buffalo requirements and County and State Health Department guidelines. This assessment did not reveal evidence of an active or abandoned supply well, drywell, monitoring well, or irrigation well on-site.

2.4 Information from the Site Owner/Operator

As part of this assessment, the LCS Owner/Operator Questionnaire was forwarded to Mr. Scott Roth (Realtor associated with the subject property) on July 20, 2011, for completion. As of the date of this report, LCS has yet to receive the completed questionnaire. Responses and/or information that would alter or affect the findings and conclusions of this report will be forwarded as an addendum when it is received by LCS.

2.5 Present Ownership and Use

Research with the City of Buffalo Assessment Office revealed the subject property is currently owned by Ahmad Yamin. A past owner of the subject property has been identified as South Ogden Estate.

2.6 Adjoining Properties

The adjacent properties were observed from the subject property and public thoroughfares at the time of the site reconnaissance. This assessment did not reveal signs of significant environmental concern noted on the adjacent properties that would result in a recognized environmental condition/concern at the subject property.

The surrounding property uses include the following:

Direction:	Current Use:	Comments/Concerns:
North:	Buffalo River	None
South:	Fallow land with a cell phone tower and railroad tracks	None
East:	Residential	None
West:	Fallow land with railroad tracks	None

2.7 Environmental Permits and/or Violations

Based upon the nature of the on-site operations, operations at the subject property do not appear to be subject to environmental permit activities or environmental compliance issues. LCS does not anticipate concerns relative to regulatory compliance issues (i.e., UST registrations, generator status, etc.) or non-compliance issues (i.e., UST registration, POTW wastewater discharge, RCRA Generator status, air pollution control, and hazardous materials storage practices). There was no evidence of releases (staining, odors, etc.) at the time of the site inspection.

According to reasonably ascertainable and practically reviewable documentation and information obtained during this assessment, no enforcement actions or orders have been imposed against the referenced subject property.

2.7 Environmental Permits and/or Violations (continued):

The LCS Owner/Operator Questionnaire was forwarded to Mr. Scott Roth on July 20, 2011. As of the date of this report, LCS has not received the completed questionnaire from the borrower. Responses and/or information that would alter or affect the findings and conclusions of this report will be forwarded as an addendum when it is received by LCS.

3.0 SITE HISTORY

3.1 Information from Site Owner/Operator

No additional information was provided via the site owner/operator.

3.2 Previous Environmental Reports

No previous studies were supplied to LCS for review relative to this assessment for the subject property.

3.3 Building Department Records

LCS reviewed the Building Department file for the subject property; there were no records of environmental issues included in this file.

3.4 Title Records

The Abstract-of-Title was not supplied to LCS for review. As such, LCS has no information relative to deed restrictions, environmental liens, Environmental Land Use Restrictions (ELURs), and Activity and Use Limitations (AULs). No such information was noted in the municipal records researched by LCS.

3.5 Local Records

3.5.1 Fire Department

LCS reviewed the Fire Department file for the subject property; there were no records of environmental issues included in this file.

3.5.2 City/Town Clerk's Office

According to information obtained through www.real-info.com and the City of Buffalo Assessment Office, the subject property, SBL No. 123.15-1-4, measures approximately 26.6 acres. The subject property is currently owned by Ahmad Yamin. A past owner of the subject property has been identified as South Ogden Estate. The subject property is recorded as being supplied with all public utilities, including municipal sewer, water, natural gas, and electric. The supplies of such utilities is unknown. There was no indication of historic heating systems or previous site development.

3.5.4 Board of Health/Health Department

Attempts to interview the Erie County Health Department have been made by LCS. As of the date on this report, LCS has not received a response. Responses and/or information that would alter or affect the findings and conclusions of this report will be forwarded as an addendum when it is received by LCS.

3.5 Local Records (continued):

3.5.4 Environmental/Engineering Department

Based upon LCS' review of local municipal records and data, there is no Environmental/Engineering Department within the City of Buffalo.

3.5.5 Conservation Commission

Based upon LCS' review of local municipal records and data, there is no Conservation Commission within the City of Buffalo.

3.5.6 Department of Public Works

Attempts to interview the City of Buffalo Department of Public Works have been made by LCS. As of the date on this report, LCS has not received a response. Responses and/or information that would alter or affect the findings and conclusions of this report will be forwarded as an addendum when it is received by LCS.

3.6 Historical Sources

3.6.1 Sanborn Fire Insurance Maps

EDR provided, and LCS reviewed, historical maps dating 1900, 1917, 1939, 1950 and 1986. Based on those maps, included within the appendix of this report, the subject property the historical uses and those of adjacent properties are described as below. [It should be noted that the subject property was not identified in the map dated 1900.]

YEAR /SITE	OBSERVATIONS
1917, 1939 and 1950	
Subject Property	Undeveloped land and the Old Buffalo River
North	Buffalo River
South	Railroad tracks
East	Vacant land
West	Buffalo River
1986	
Subject Property	Undeveloped land and the Old Buffalo River
North	Buffalo River
South	Railroad tracks
East	Vacant land and residential
West	Buffalo River

3.6 Historical Sources (continued):

3.6.2 Aerial Photographs/USGS Topographic Maps

The subject property is included on the Buffalo Southeast Quadrangle Topographic Map dated 1965 (attached). This map indicates that the subject property was undeveloped at that time.

Historical aerial photographs serve to reveal former topography, buildings, structures and man-made works such as canals, lagoons, and railroads that may have been altered or may no longer be in existence.

Historical aerial photographs were reviewed at the Erie County Soil and Water Conservation Service in East Aurora, New York on July 20, 2011. Changes in land use and general subject property characteristics were noted and are described below. Copies of the aerial photographs, if available, are attached.

YEAR/SITE	OBSERVATIONS
1938	
Subject Property	Fallow land with a branch of the Buffalo River running through the property
North	Buffalo River
South	Fallow land and railroad tracks
East	Fallow land and the Buffalo River
West	Fallow land and railroad tracks
1958	
Subject Property	Fallow land with suspected pond on southern portion of property
North	Buffalo River
South	Fallow land and railroad tracks
East	Fallow land
West	Fallow land and railroad tracks
1966 and 1978	
Subject Property	Not available
North	Not available
South	Not available
East	Not available
West	Not available
1990, 2002 and 2008	
Subject Property	Fallow land
North	Buffalo River
South	Fallow land and railroad tracks
East	Suspected residential
West	Fallow land and railroad tracks

3.6 Historical Sources (continued):

3.6.3 City Directories

Historic city directories, available through the Buffalo Erie County Public Library, were reviewed for additional information regarding the subject property. Past occupants of the subject property and those of adjacent/nearby properties have been identified through the city directories as listed below.

YEAR	OCCUPANTS
1993, 1999, 2005 and 2010	
Subject Property	Not listed
Adjacent/Nearby Properties (address)	Residential (39, 45, 51, 55, 61, 65, 71, 75, 83, 91, 97 and 103 South Ogden Street)

3.6.4 Additional Historical Sources

Other historical sources were not readily reasonably ascertainable or practically reviewable from local sources.

3.6.5 Summary of Historical Information

The historical use of the subject property has been researched through review of historic maps, historic aerial photographs, municipal records, city directories and/or other reasonably obtainable and practically reviewable documents, as detailed below. In general, the historical uses were determined to be as follows.

Date Range	Apparent Use	Source
At least 1917 through 2008	Undeveloped/vacant/fallow land; Old Buffalo River on-site from at least 1917 through 1986	Aerial photographs and Sanborn maps

4.0 ENVIRONMENTAL SETTING

4.1 Topography

The subject property is included on the Buffalo Southeast Quadrangle Topographic Map dated 1965 (attached). The subject property is generally level at road grade at approximately 575-590 feet above mean sea level.

4.2 Hydrology

The subject property is situated regionally in the Lake Erie-Niagara River Major Drainage Basin and locally within the Tonawanda Creek Sub-Basin.

4.2.1 Surface Water

A creek runs through the subject property. Surface drainage appears to flow in a direction toward the lowest elevated points on-site. The Buffalo River is located north adjacent to the subject property.

LCS did not note the presence of storm water discharge systems on-site.

4.2.2 Wetlands

Based upon observations at the time of the site inspection, there was evidence of apparent wetland areas or obvious wetland facultative vegetation.

According to information reviewed at http://www.dec.ny.gov/imsmaps/ERM/viewer.htm (state) and http://www.fws.gov/wetlands/ (federal), the approximate distances to the nearest wetlands are 1.1 miles southeast (BU-13) (state) and on-site (PF01E) (federal).

Not all wetlands are mapped; rather, they are identified using soil types, vegetation and hydrology. According to information reviewed in-house, mapped soil units, Dumps, Hamlin silt loam and Udorthents-smooth, reportedly present at the subject property, are not classified as hydric soils. However, mapped soil units, Teel silt loam and Wayland silt loam, also reportedly present on-site, are classified as potentially hydric and hydric soils, respectively. Therefore, there is the potential for the presence of wetlands on the subject property.

4.2.3 Hydrogeology

Regional groundwater would appear to flow in a southerly direction based on a review of geological/soils and United States Geological Survey (USGS) quadrangle maps. Localized groundwater flow would be influenced by utilities, subsurface structures, etc. The area of the subject property has a groundwater classification of GA, as determined by the NYSDEC.

5.0 RECORDS REVIEW

No sites of potential concern were identified by our environmental database provider within their reports other than those identified below.

Database	Radius Searched (mi.)	Subject Property Identified?	No. Sites w/in Search Radius	Comments
NPL	1	N	0	None
CERCLIS	0.5	N	0	None
CERCLIS-NFRAP	0.25	N	0	None
CORRACTS	1	N	1	Refer to 5.1 below.
RCRA-TSD	0.5	N	0	None
RCRA Generator	SP and adjacent only	N	1	Refer to 5.1 below
ERNS	SP	N	0	None
FINDS	SP	N	0	None
State Haz. Waste	1	N	2	Refer to 5.2 below
State CERCLIS	1	N	0	None
State Landfill	0.5	N	1	Refer to 5.2 below
LTANK	0.5	N	4	Refer to 5.2 below
UST	SP and adjacent only	N	1	Refer to 5.2 below
CBS UST	SP and adjacent only	N	0	None
MOSF UST	SP and adjacent only	N	0	None
AST	SP and adjacent only	N	0	None
CBA AST	SP and adjacent only	N	0	None
MOSF AST	SP and adjacent only	N	0	None
Spills	0.25	N	15	Refer to 5.2 below

SP = Subject Property

In addition to review of the regulatory database, LCS has submitted a Freedom of Information Legislation (FOIL) request to the local office of the New York State Department of Environmental Conservation (NYSDEC) (see attached). As of the date on this report, LCS has not received a completed response. Responses and/or information that would alter or affect the findings and conclusions of this report will be forwarded as an addendum when it is received by LCS.

5.1 Federal Records

5.1.1 National Priority List Sites

There are no National Priority List (NPL or "Superfund") hazardous waste sites located within a one-mile radius of the subject property.

5.1.2 CERCLIS Listings

There are no Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) listed hazardous waste sites located within a one-half mile radius of the subject property.

There are no CERCLIS-No Further Remedial Action Planned (NFRAP) listed hazardous waste sites located within a one-quarter mile radius of the subject property.

5.1 Federal Records (continued):

5.1.3 RCRA CORRACTS Facilities

There is one Resource Conservation and Recovery Act (RCRA) Corrective Action Listed Site (CORRACTS) located within a one-mile radius of the subject property. This site (Orban, 324 Indian Church Road) is located over one-half mile from the subject property.

5.1.4 RCRA Non-CORRACTS Facilities

There are no RCRA CORRACTS-Treatment, Storage, and Disposal (TSD) facilities located within a one-half mile radius of the subject property.

5.1.5 RCRA Generator

An adjacent property listed as Southside Collision, addressed at 17 South Ogden Street, was identified as a RCRA historical generator of hazardous waste from at least 1986 through 2007.

5.1.6 ERNS Sites

The subject property has not been identified as an Emergency Response Notification System (ERNS) site.

5.1.7 FINDS

The subject property has not been identified on the Facility Index Listed (FINDS) database.

5.2 State Records

5.2.1 State-listed Sites

There are two NYSDEC listed hazardous waste sites (the state equivalent of NPL sites) located within a one-mile radius of the subject property. The closest such site Bestway Cleaners, 2075 Seneca Street is located over one-quarter mile from the subject property. This site is a significant threat to public health or environment and action is required.

There is one NYSDEC listed hazardous substance site (similar to CERCLIS sites) located within a one-half mile radius of the subject property. This site (National Fuel-Mineral Springs Work, 365 Mineral Springs Road) is located over one-eighth mile from the subject property.

5.2.2 Registered Underground Storage Tanks/Aboveground Storage Tanks

An adjacent property listed as Reid Petroleum, addressed at 330 Mineral Springs, was identified as a NYSDEC registered UST facility.

5.2.3 Leaking Underground Storage Tanks

There are four NYSDEC listed spill sites attributed to leaking tanks (LTANKs) located within a one-half mile radius of the subject property. Neither the subject property nor adjacent sites were identified. All four of these spills are classified as either "inactive" or "closed" by the NYSDEC. [A status of "closed" indicates the spill was remediated and the NYSDEC file closed with no further remediation required. A status of "inactive" indicates the contamination may remain but no further remediation is required.]

5.2 State Records (continued):

5.2.4 Solid Waste Facilities and Landfills

There is one NYSDEC listed solid waste facility located within a one-half mile radius of the subject property. This site (West Seneca Composting Facility, 500 Mineral Springs Road) is located over one-quarter mile from the subject property and is listed as an active registered composting facility.

5.2.5 Spill Sites

While not required under the ASTM standard, our database provider indicated that there are 15 additional NY Spills located within a one-quarter mile radius of the subject property.

An adjacent property listed as a former gas station, addressed at 330 Mineral Springs Road, was identified as a NY Spill site. Spill No. 0013021 involved the discovery of contaminated soil during UST removal and is classified as "closed."

An adjacent property listed as National Fuel Gas, addressed at 265 Mineral Springs Road, was identified as a NY Spill site. Spill No. 9100137 involved a broken hydraulic line on a crane and is classified as "closed."

All 12 remaining spills are classified as either "inactive" or "closed" by the NYSDEC.

5.3 Non-Geocoded Properties:

Sites unplottable by our database provider were also reviewed, based on property names and addresses, to determine whether such sites are present within the appropriate radii. If these sites were determined to be within the appropriate radii, they are listed above. Based upon a review of the sites and corresponding information, neither the unplottables nor adjacent properties have impacted the subject property.

6.0 SUSPECT MOLD

Mold can germinate and colonize in areas of buildings where conditions include moisture, heat, and a readily available "food" sources such as drywall, wood, insulation, paper are present. The speed of the mold growth depends on the combination of these conditions. Roof leaks often lead to accelerated mold growth. The musty odor commonly present with mold is associated with the Microbial Volatile Organic Compounds (mVOCs) produced by molds. Some, but not all molds produce a Mycotoxin that is considered a health concern to building occupants that may result in a negative health effect.

6.1 Interview of Site Contact

In an interview with the site contact, the following specific questions were asked relative to mold. The site contact's responses are as follows.

6.1.1 Is, or has there been, visual mold growth or moldy odors identified within the subject building? No.

6.1.2 Is, or has there been moisture, condensation or high humidity problems within the subject building? No.

6.1.3 Have areas of the subject building been impacted by a flood, plumbing/sewer leak, roof/window leak, groundwater intrusion or discharge of a sprinkler system? No.

6.1.4 Is a sump pump located within the basement of the subject building? No.

6.1.5 Have occupants of the subject building complained as to water intrusion or moldy odors within their tenant spaces or reported adverse health problems that have been alleged to be related to the subject building? No.

6.1.6 Does the HVAC system have drip pans or other open discharge of condensate water, steam or other moisture? No.

6.1.7 Has a state or local health agency issued notices of violation to the subject building as to indoor air quality, odors, moisture or mold growth? No.

6.1.8 Have moisture surveys, indoor air quality reports or surveys been conducted for the subject building? No.

6.1.9 Has an insurance claim ever been filed for water or mold-related damage to the subject building? No.

6.2 Visual Assessment

At the time of the site inspection, this assessment did not reveal the presence of mold or mold-related odors within the "readily-accessible" (as defined by the Master Environmental Services Agreement) areas of the subject structure(s). This does not preclude the presence of molds in interstitial areas (behind walls, moldings, etc.) or the potential for future mold growth. Specific observations are as follows.

6.2.1 Evidence of Significant Mold

LCS did not observe significant amounts of suspected mold growth on the subject property.

6.2.2 Moldy Odors

No structures were observed during this assessment.

6.2.3 Ponding on the Roof

No structures were observed during this assessment.

6.2.4 Excessive Patching on the Roof

No structures were observed during this assessment.

6.2.5 Water Staining or Discoloration

LCS did not identify water staining, standing water or discoloration on walls, floors, ceilings or other building materials.

6.2.6 Flooding, Plumbing/Sewer Leaks, Roof/Window Leaks, Groundwater Intrusion or Discharge of a Sprinkler System within the Building

LCS did not identify evidence of flooding, plumbing/sewer leaks, roof/window leaks, groundwater intrusion or discharge of a sprinkler system on the subject property.

6.2.7 High Humidity Areas

LCS did not identify observe areas of high humidity (e.g., indoor pools, spas, whirlpools, saunas, decorative fountains) located on the subject property.

6.2.8 Heat Exchanges/Cooling Towers

LCS did not identify heat exchangers/cooling towers on the subject property.

7.0 SITE RECONNAISSANCE

Exceptions/Deletions/Limitations to the Site Reconnaissance:

Due to thick vegetation on-site at the time of the site reconnaissance and the large acreage of the subject property, observations on the subject property were limited. Additionally, LCS was unaccompanied during the site reconnaissance, thus property boundaries were approximated.

Overview

A visual site review of the subject property, undeveloped/vacant/wooded/fallow land located at 154 South Ogden Street, City of Buffalo, Erie County, New York, SBL No. 123.15-1-4, was conducted by LCS on July 20, 2011. The subject property fronts on South Ogden Street. Such information has been incorporated herein and is included in the LCS Owner/Operator Questionnaire.

The subject property is generally level at road grade at approximately 575-590 feet above mean sea level. There are no surficial water bodies (including pits, ponds, or lagoons) located within the boundaries of the subject property. Buffalo River is located north adjacent to the subject property. Refer to *SITE SURVEY/TAX MAP*, *SITE CONDITION REPORT* and *OWNER/OPERATOR QUESTIONNAIRE* attached.

The subject property is supplied with municipal sewer, water, natural gas, and electric. Currently, there is no hazardous or regulated waste generated on-site.

The exterior portions of the subject property were noted to include green areas and trees.

7.1 Underground Storage Tanks

During the LCS site inspection, there was no indication of on-site USTs for the containment of petroleum products (e.g., fill ports, vent pipes, accessways, etc.).

7.2 Aboveground Storage Tanks

During the LCS site inspection, there was no indication of on-site ASTs for the containment of petroleum products (e.g., fill ports, vent pipes, accessways, etc.).

7.3 Hazardous Substances

Currently, there are no hazardous substances located on-site.

There were no visible signs of unidentifiable/unlabeled containers, drums, sacks, or pails, etc. noted at the time of the site inspection.

7.4 Hazardous Waste

Currently, there are no hazardous or regulated wastes generated on-site. However, it should be noted that asphalt, concrete and general debris were noted dumped along a gas pipeline pathway along the northern property boundary.

There were no visible signs of unidentifiable/unlabeled containers, drums, sacks, or pails etc. noted at the time of the site inspection.

7.5 Suspect Polychlorinated Biphenyls

This assessment did not reveal the presence of PCBs Light ballasts, transformers, elevator mechanical rooms and other electrical equipment may contain PCBs, however, these types of equipment were not identified or located on-site at the time of LCS inspection. There were no privately owned transformers.

7.6 Solid Waste Disposal

Currently, there is not solid, hazardous or regulated waste generated on-site.

The LCS site reconnaissance did not reveal evidence of the placement of fill dirt or solid waste disposal activities on-site.

7.7 Stained Surfaces and Distressed Vegetation

The LCS site reconnaissance did not reveal, stained soils, stained pavement, stressed vegetation, or corroded surfaces noted on-site.

7.8 Underground Structures and Sanitary Wastewater Disposal

A municipal water supply system is available for connection to the subject property. This assessment did not reveal evidence of an active or abandoned supply well, drywell, monitoring well, or irrigation well on-site.

Municipal sanitary and storm sewers are available for connection to the subject property; however, such is not yet connected. This assessment did not reveal evidence of a current or historic private septic system or cesspool on the subject property.

This assessment did not reveal evidence of pits, ponds, or lagoons used in connection with waste treatment or waste disposal. At the time of the site inspection, neither floor drains nor storms drains were noted.

This assessment did not reveal evidence of hydraulic lifts within the subject structure. This assessment did not reveal evidence of sinkholes or pipelines on-site.

7.9 Additional Issues of Environmental Concern

7.9.1 Suspect Asbestos-Containing Materials

As the subject property is currently undeveloped land, such are not anticipated.

7.9.2 Suspect Lead-Based Paint

As the subject property is currently undeveloped land, such is not anticipated.

8.0 LIMITATIONS AND CONDITIONS

This **PRELIMINARY ENVIRONMENTAL SITE ASSESSMENT, ASTM E1527-00** is based on the SCOPE OF SERVICES contained within this report. This report is not to be considered as an environmental audit of the subject property or a complete environmental investigation of the subject property.

We have prepared this report for the exclusive use of our client. LCS' liability is limited to use by this client for a period of one year. Use by any other party is strictly prohibited except by authorization in writing from this consultant. LCS has no liability for others' use and/or interpretation of the information contained within this report.

The purpose of this assessment is not to proclaim a property is devoid of environmental impact but rather to identify recognized environmental condition (REC). A REC is defined by the ASTM standard as "the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substance or petroleum products into structures on the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include de minimis conditions that generally do not present a material risk of harm to the public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be de minimis are not recognized environmental conditions."

This study was conducted using the ASTM 1527-00 Standard. The study should not be misconstrued as being completed to meet either the USEPA AAI or the ASTM 1527-05 Standard. This assessment (as defined by ASTM) is intended to reduce, but not eliminate, uncertainty regarding the potential for RECs in connection with a subject property. This assessment does not include any testing or sampling of materials.

This **PRELIMINARY ENVIRONMENTAL SITE ASSESSMENT PHASE I, ASTM E1527-00** makes no warranties nor implies liability regarding:

1) Site specific practices and/or disposal methods of the past or future owners.

2) The presence of lead containing materials, asbestos, and/or environmental impact of such substances on the subject property or buildings and structures on the subject property, other than noted here in.

3) Adjacent property owners, their environmental practices and/or impact of such properties and practices on the subject property other than observed from the subject property.

4) Unreported spills.

5) Practices, waste disposal, environmental concerns and/or modifications to waste site indexes after the date on this report.

6) Site groundwater or soil conditions.

7) Accuracy or completeness of information supplied to LCS by others.

8) Environmental conditions in areas that were not accessible or not otherwise shown to LCS (locked rooms, behind walls or ceilings, etc.).

8.0 LIMITATIONS AND CONDITIONS (continued)

This report is also subject to any and all limitations defined within the ASTM Phase I Standard. This includes, but is not limited to, the limitation that this report is intended to identify environmental conditions at a specific time and the report is only valid for a period of six months from the date of issuance. According to ASTM, asphalt pavement is considered a limitation.

Exceptions/Deletions/Limitations to this Assessment:

Due to thick vegetation on-site at the time of the site reconnaissance and the large acreage of the subject property, observations on the subject property were limited. Additionally, LCS has yet to receive all responses from regulatory information requests. Furthermore, LCS was unaccompanied during the site reconnaissance, thus property boundaries were approximated. Lastly, LCS has yet to receive the owner/operator questionnaire. LCS cannot be liable for information known only to the site owner or operator and not shared with LCS.

9.0 REFERENCES

1 GEOLOGIC MAP OF NEW YORK-- NIAGARA SHEET
Compiled and edited by Lawrence V. Rickard and Donald W. Fisher, March 1970.
University of the State of New York; The State of New York Education Department.

2 SURFICIAL GEOLOGIC MAP OF NEW YORK-- NIAGARA SHEET
Compiled and edited by Donald H. Cadwell, 1988.
University of the State of New York; The State of New York Education Department.

3 EDR, Environmental Data Resources, Inc., The EDR-Radius Map Report, Inquiry #3128371.2s. Report Dated July 20, 2011.

4 EDR, Environmental Data Resources, Inc., Certified Sanborn Map Report, Inquiry #3128371.3. Report Dated July 21, 2011.

5 EDR, Environmental Data Resources, Inc., City Directory Abstract, Inquiry #3128371.4. Report Dated July 21, 2011.

6 www.real-info.com

7 http://gis1.erie.gov/website/Erie_help/help.htm

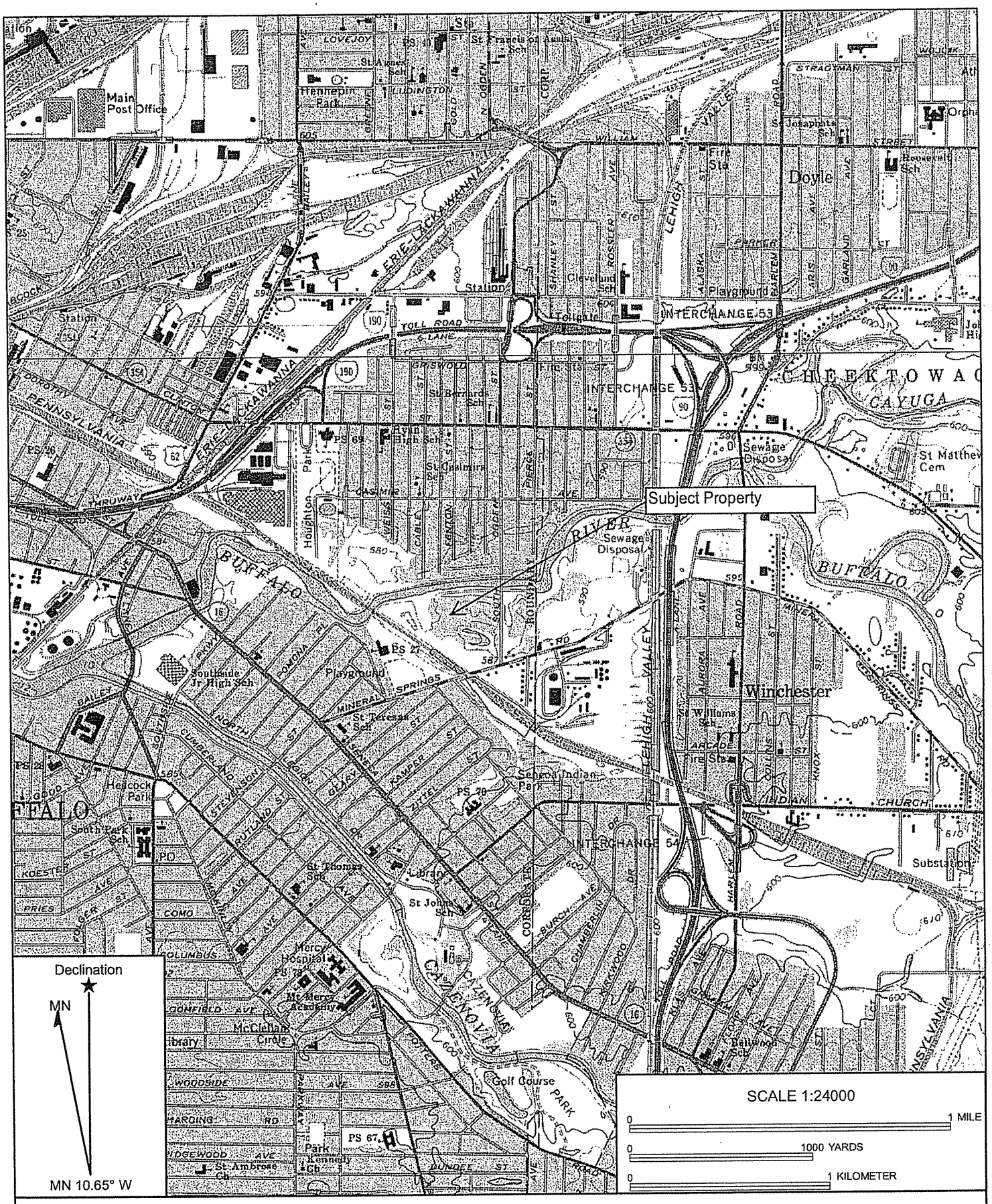
8 www.nrcs.usda.gov

9 http://soils.usda.gov/use/hydric/lists/state.html

10 http://www.fws.gov/wetlands/

11 http://www.health.state.ny.us/environmental/radiological/radon/towns.htm

12 http://www.dec.ny.gov/imsmaps/ERM/viewer.htm



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Date: 07/20/11
Scale: 1 inch = 2,000 ft.

Location: 042° 51' 49.54" N 078° 48' 09.55" W
Map date: 1965
11B2011.21

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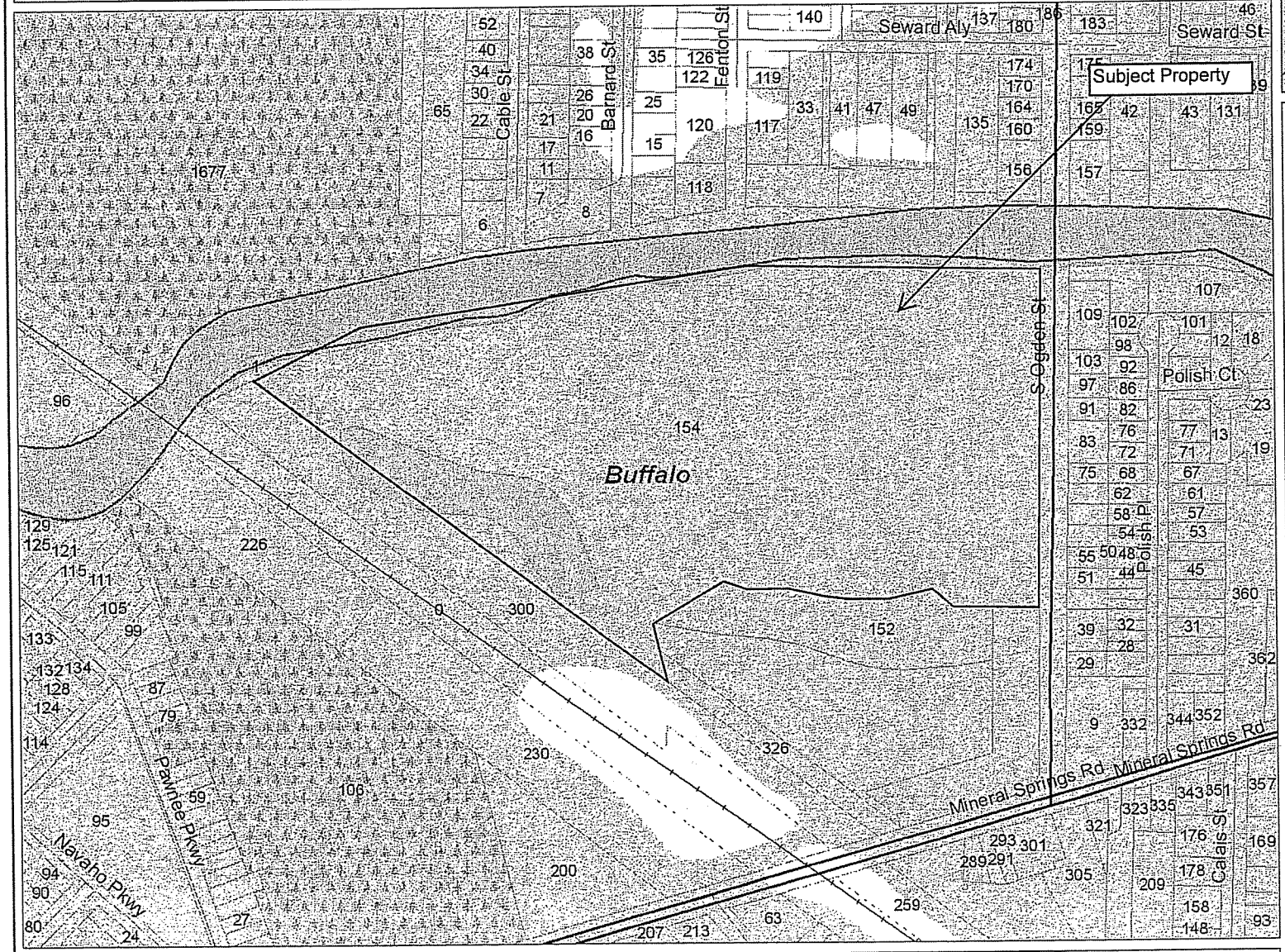
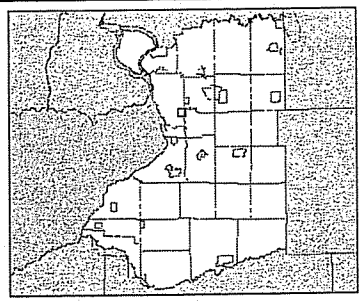
TAX ASSESSOR'S MAP

Erie County On-Line Mapping System





Legend

- Railroads
- Streets and Highways
  - Interstate
  - Primary State Road
  - Secondary State Road
  - County Road
  - Local Road
- Parcels
- Streams
- Lakes / Ponds
- DEC Wetlands
- National Wetlands Inventory
  - Wetlands
  - No Digital Data
- FEMA Floodplains
- Parks

1: 4,287

Notes

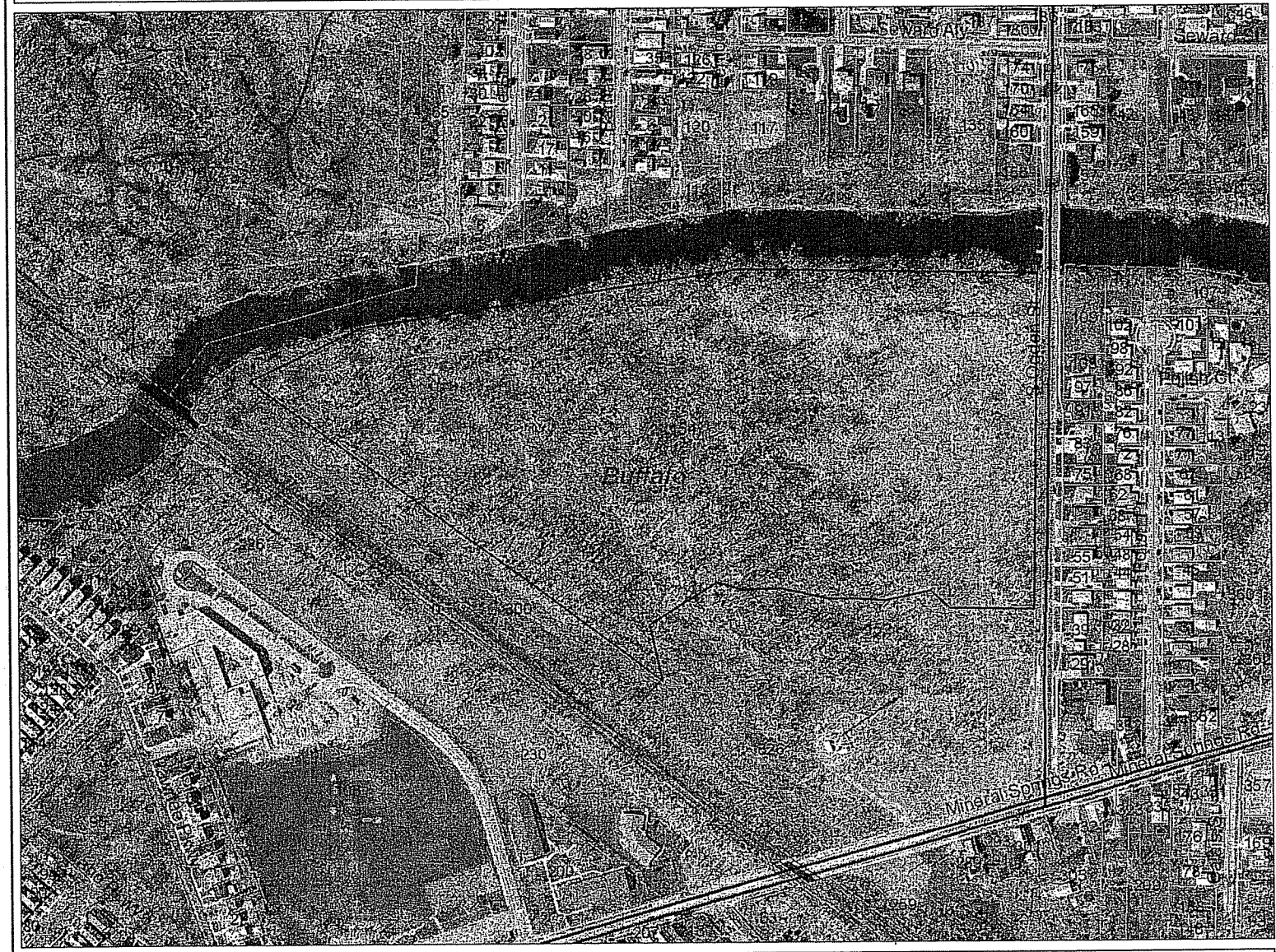
Enter Map Description

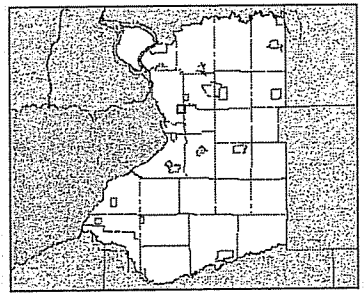
0.1 0 0.07 0.1 Miles

Erie County and its officials and employees assume no responsibility or legal liability for the accuracy, completeness, reliability, timeliness, or usefulness of any information provided. Tax parcel data was prepared for tax purposes only and is not to be reproduced or used for surveying or conveyancing.

ERIE COUNTY, NEW YORK
DEPARTMENT OF ENVIRONMENT & PLANNING
OFFICE OF GEOGRAPHIC INFORMATION SERVICES

Erie County On-Line Mapping System





Legend

- Railroads
- Streets and Highways
  - Interstate
  - Primary State Road
  - Secondary State Road
  - County Road
  - Local Road
- Parcels
- 1ft Color Orthos
  - Red: Band_1
  - Green: Band_2
  - Blue: Band_3
- 2ft Color Orthos
  - Red: Band_1
  - Green: Band_2
  - Blue: Band_3

1:4,287

Notes

Enter Map Description

0.1 0 0.07 0.1 Miles

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ERIE COUNTY, NEW YORK
DEPARTMENT OF ENVIRONMENT & PLANNING
OFFICE OF GEOGRAPHIC INFORMATION SERVICES

SITE SKETCH/PLAN

LCS, INC.

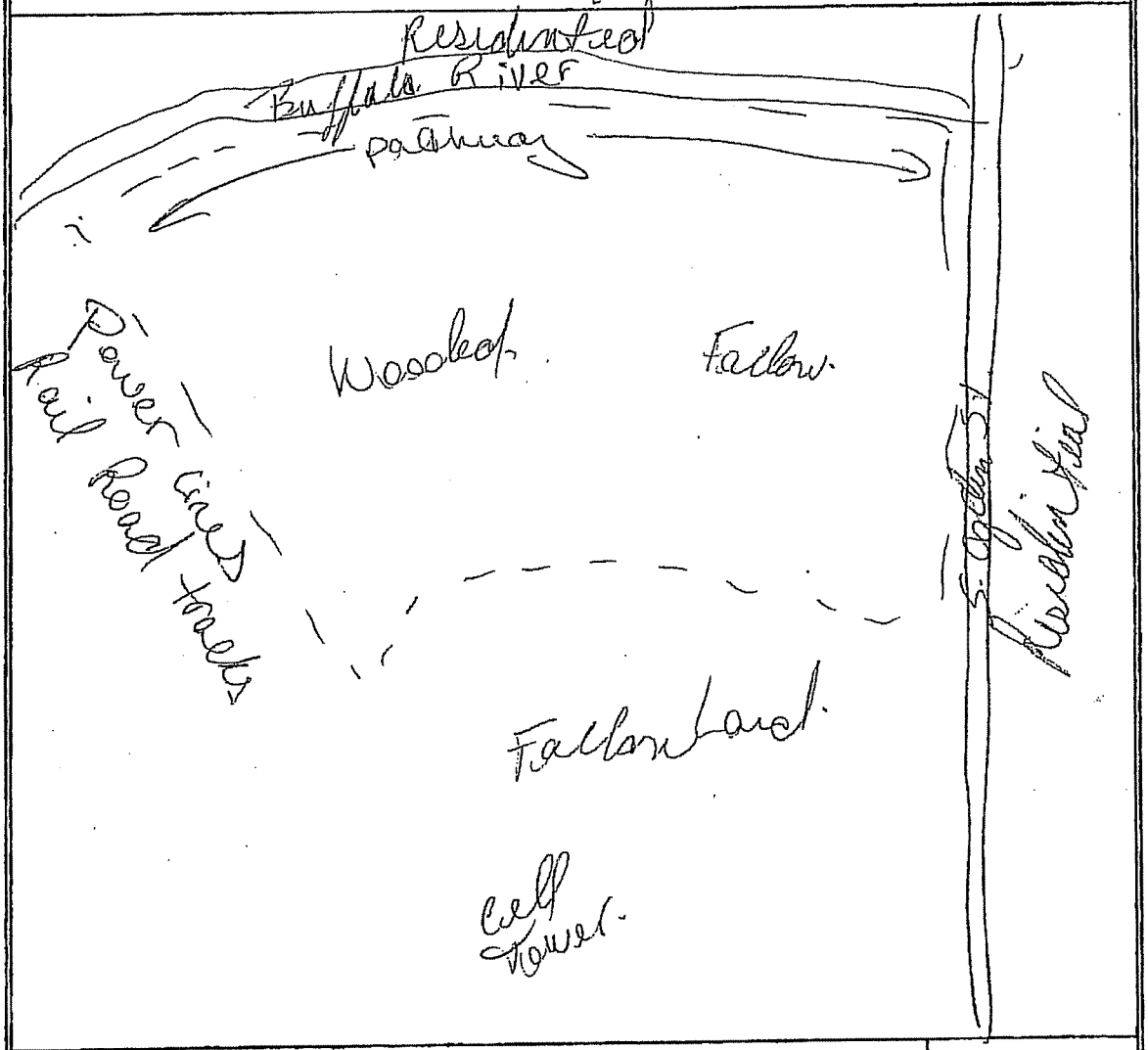
Environmental and Real Estate Consultants

Project Number: 11B2011.21

Project Location: 154 S. Ogden St.

Date: Buffalo St.

Site Sketch



Notes: Not to scale
--- Subject property

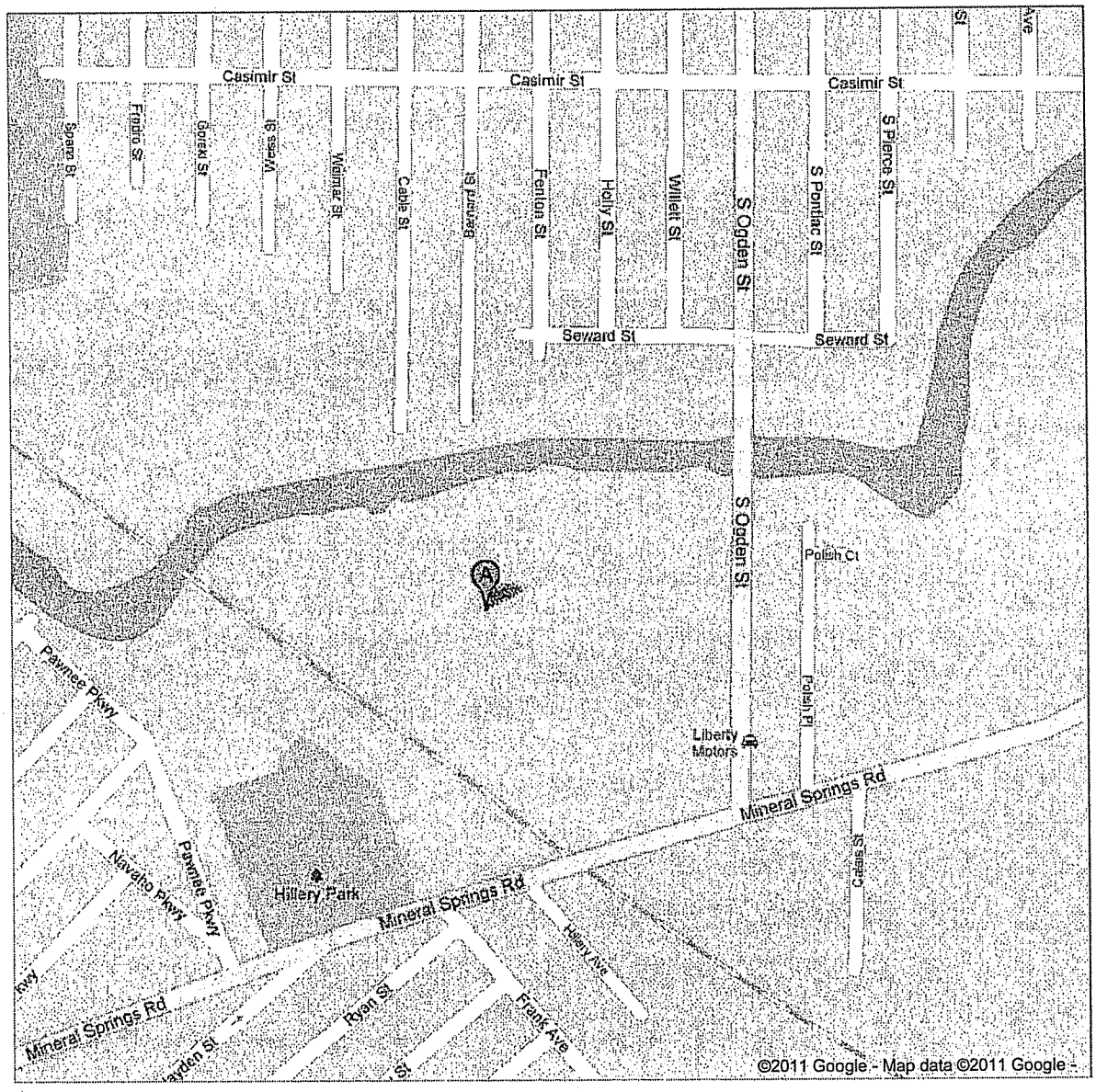
N

STREET MAP

Google maps Address **154 S Ogden St**
Buffalo, NY 14210

Notes 11B2011.21

26.6 Acres



SANBORN FIRE INSURANCE MAPS

Fallow Land
154 S Ogden St
Buffalo, NY 14210

Inquiry Number: 3128371.3
July 21, 2011

Certified Sanborn® Map Report

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

7/21/11

Site Name:
Fallow Land
154 S Ogden St
Buffalo, NY 14210

Client Name:
LCS, Inc
40 La Riviere Drive
Buffalo, NY 14202

EDR Inquiry # 3128371.3

Contact: Stephanie Laplaca

EDR® Environmental Data Resources Inc

The complete Sanborn Library collection has been searched by EDR, and fire insurance maps covering the target property location provided by LCS, Inc were identified for the years listed below. The certified Sanborn Library search results in this report can be authenticated by visiting www.edrnet.com/sanborn and entering the certification number. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by Sanborn Library LLC, the copyright holder for the collection.

Certified Sanborn Results:

Site Name: Fallow Land
Address: 154 S Ogden St
City, State, Zip: Buffalo, NY 14210
Cross Street:
P.O. # 11B2011
Project: 11B2011
Certification # 80C3-4BE9-A121

Maps Provided:

1986
1950
1939
1917
1900

Sanborn® Library search results
Certification # 80C3-4BE9-A121

The Sanborn Library includes more than 1.2 million Sanborn fire insurance maps, which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

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

The Sanborn Library LLC Since 1866™

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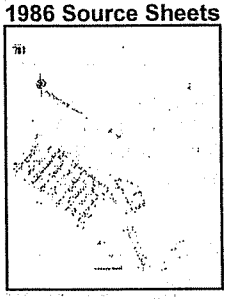
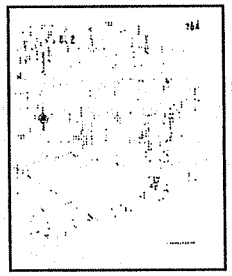
Sanborn Sheet Thumbnails

This Certified Sanborn Map Report is based upon the following Sanborn Fire Insurance map sheets.

1986 Source Sheets

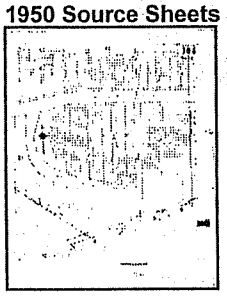


Volume 7, Sheet 783

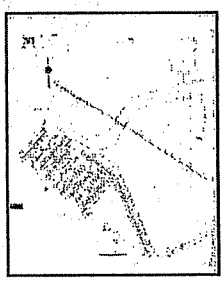


Volume 7, Sheet 784

1950 Source Sheets

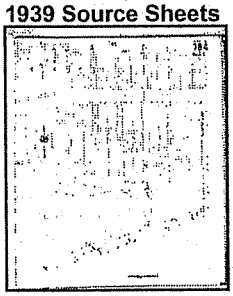


Volume 7, Sheet 784

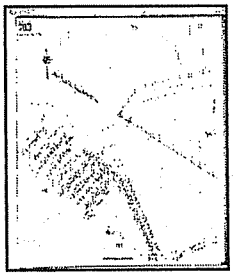


Volume 7, Sheet 183

1939 Source Sheets

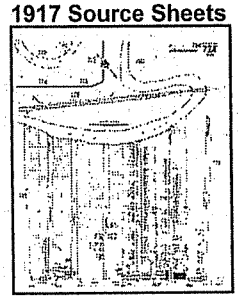


Volume 7, Sheet 784

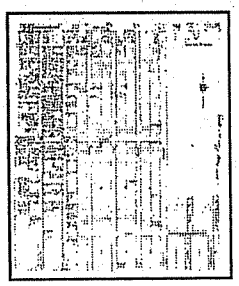


Volume 7, Sheet 783

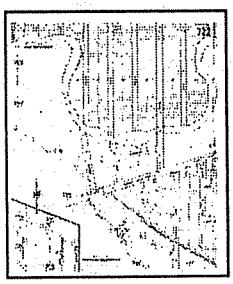
1917 Source Sheets



Volume 7, Sheet 724



Volume 7, Sheet 721



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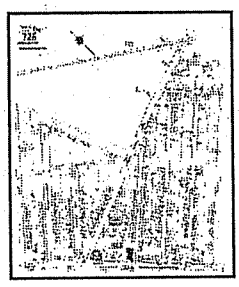
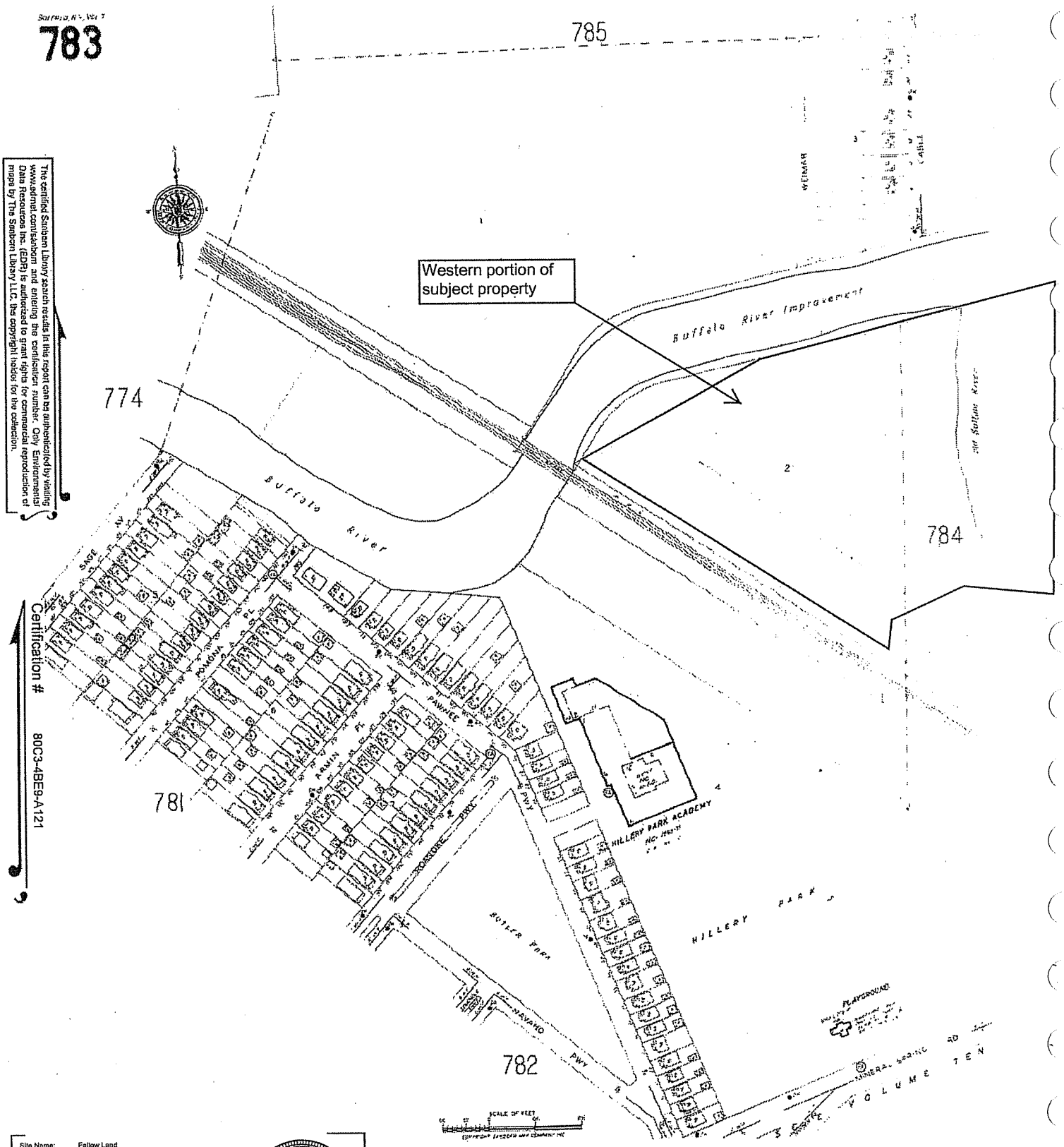


Volume 7, Sheet 725

1900 Source Sheets

1986 Certified Sanborn Map



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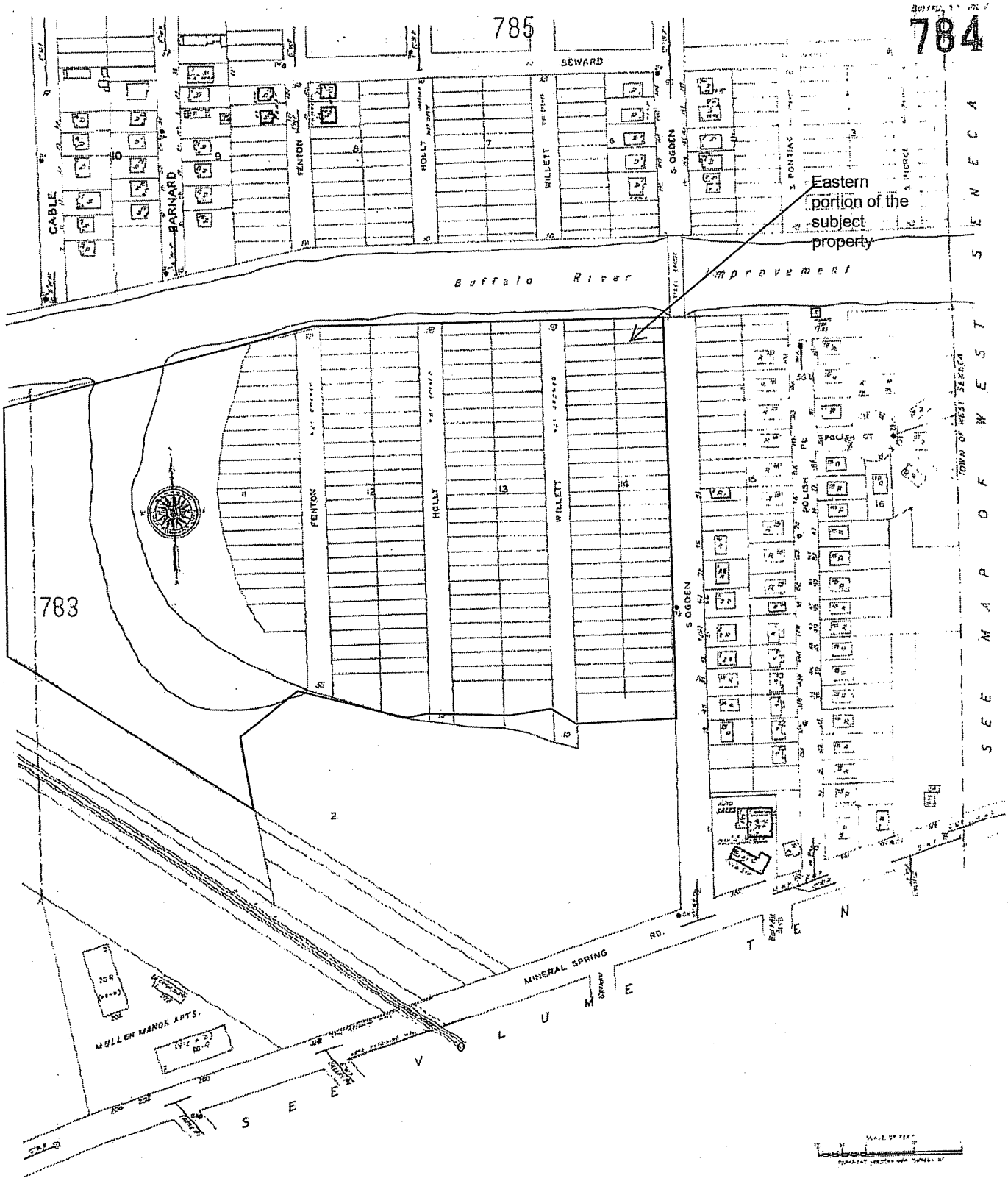
Certification # 80C3-4BE9-A121

Site Name:	Fallow Land
Address:	154 S Ogden St
City, ST, ZIP:	Buffalo NY 14210
Client:	LCS, Inc
EDR Inquiry:	3128371.3
Order Date:	7/21/2011 12:02:01 PM
Certification #	80C3-4BE9-A121
Copyright:	1986

1986 Certified Sanborn Map



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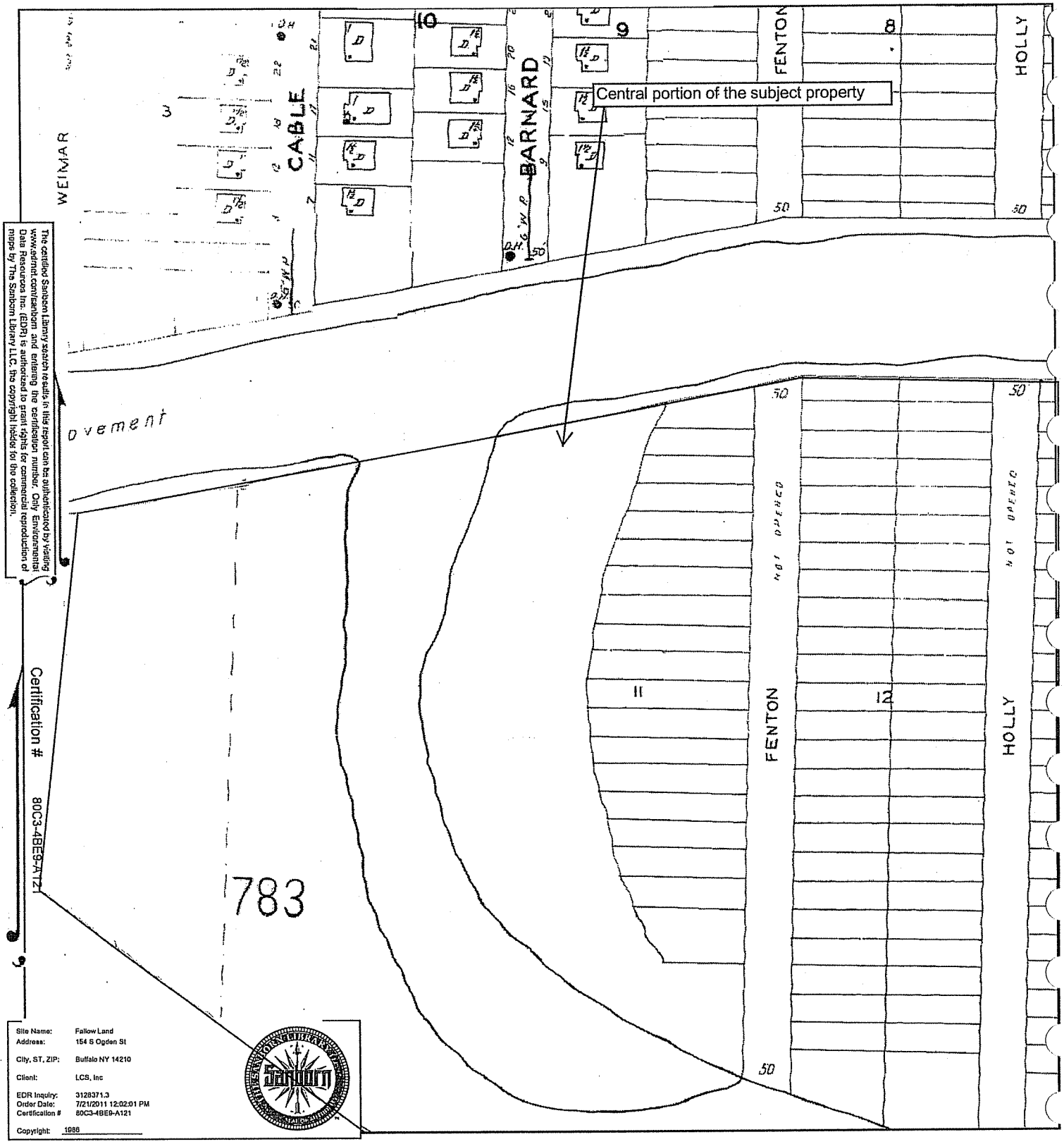
Certification #	80C3-4BE9-A121
Copyright:	1986

1986 Certified Sanborn Map



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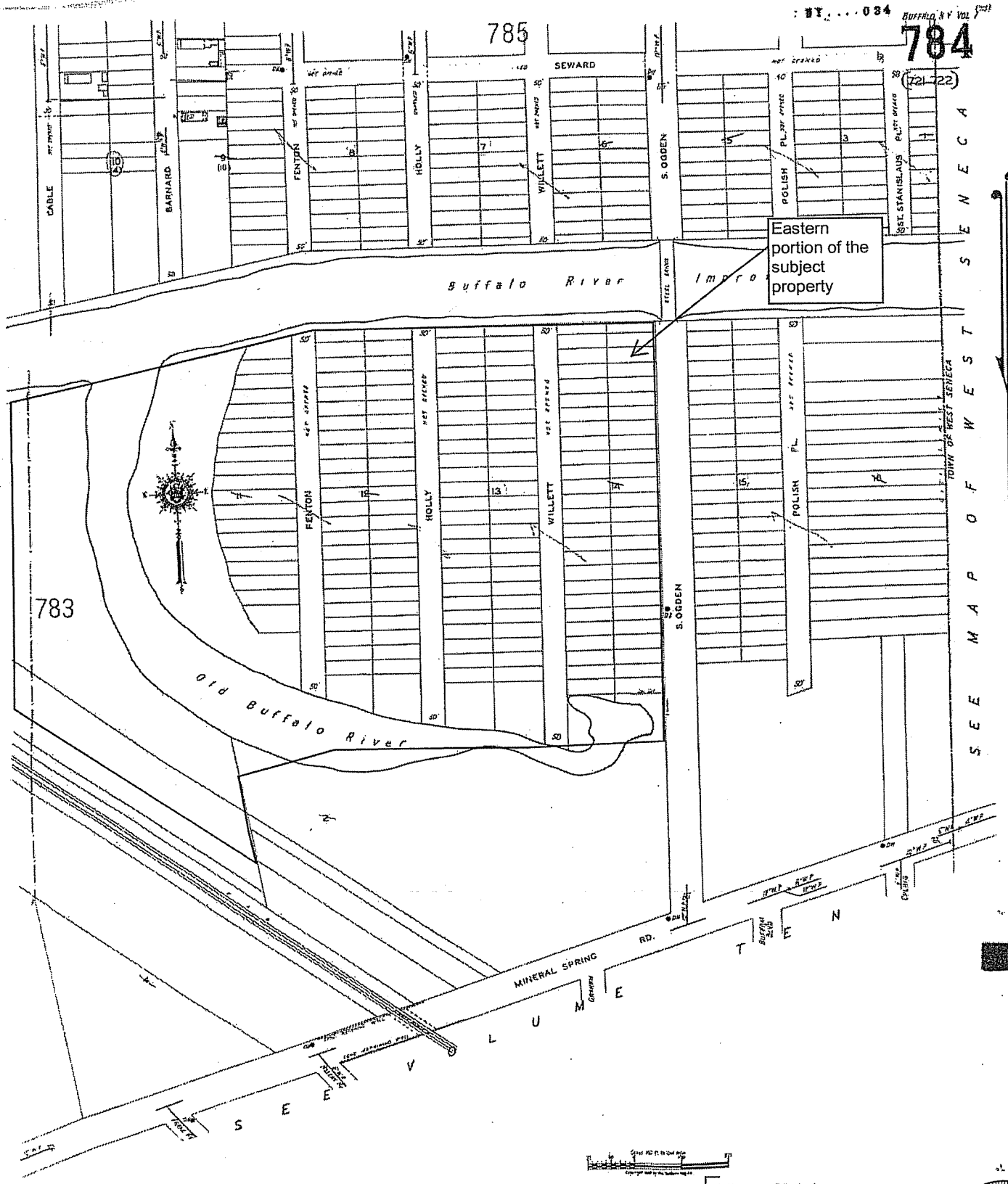
Outlined areas indicate map sheets within the collection.

Volume 7, Sheet 783
Volume 7, Sheet 784

1950 Certified Sanborn Map



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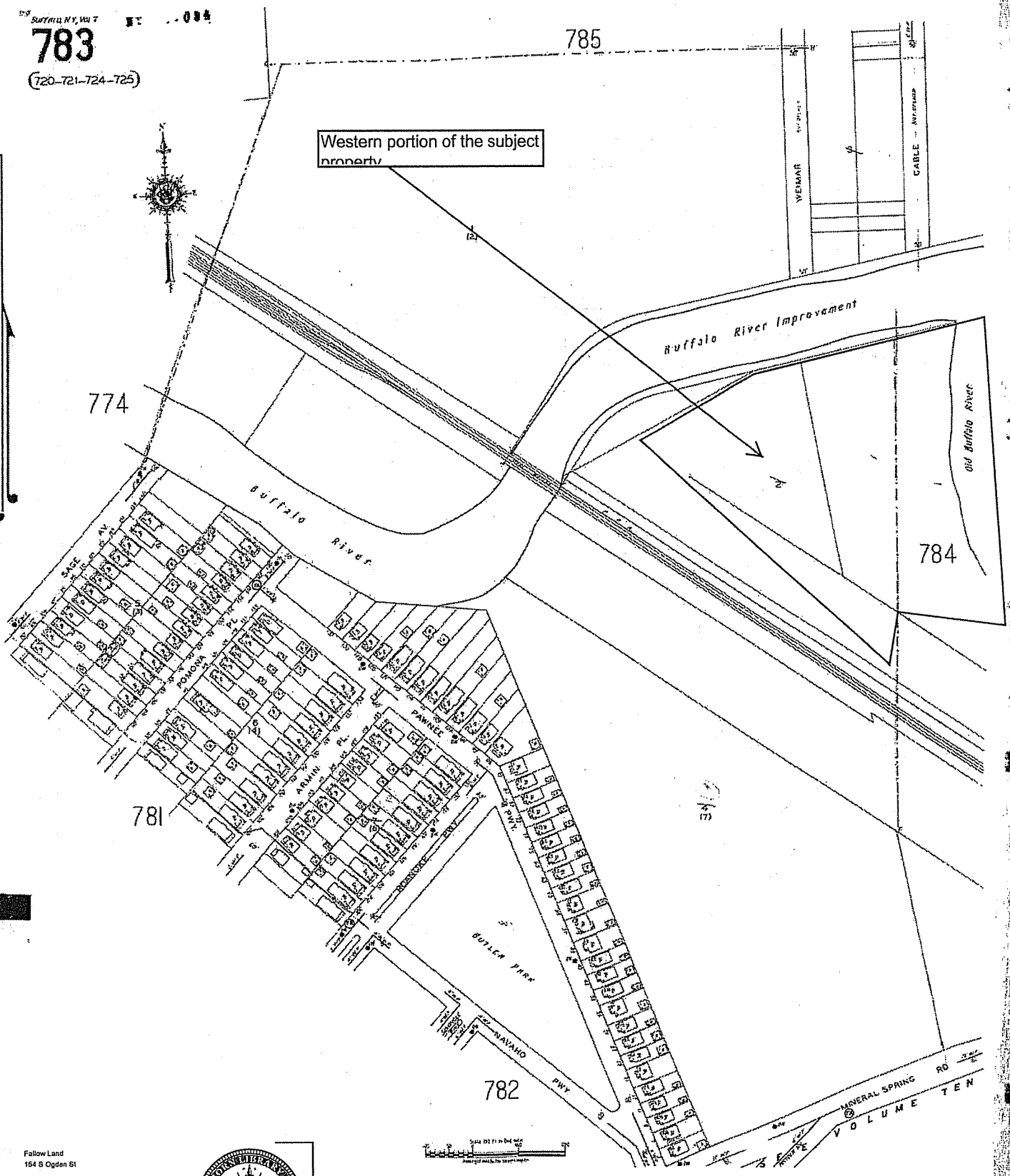
Address:	154 S Ogden St
City, ST, ZIP:	Buffalo NY 14210
Client:	LCS, Inc
EDR Inquiry:	3128371.3
Order Date:	7/21/2011 12:02:01 PM
Certification #	80C3-4BE9-A121
Copyright:	1950

1950 Certified Sanborn Map



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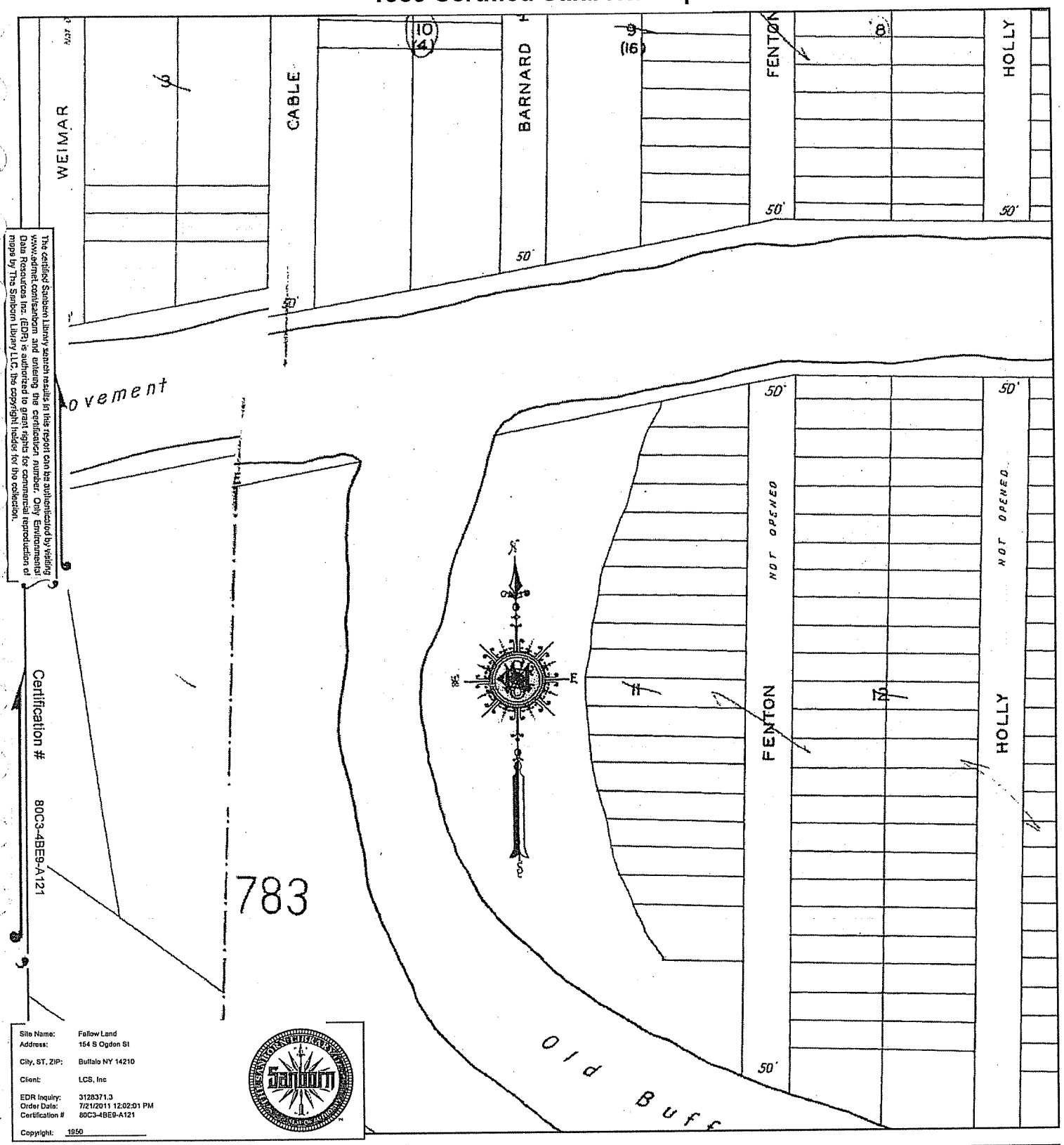
Certification #	80C3-4BE9-A121
Copyright:	1950

1950 Certified Sanborn Map



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Certification #	80C3-4BE9-A121
Copyright:	1950

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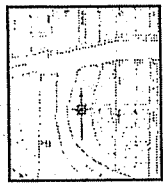
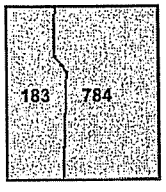


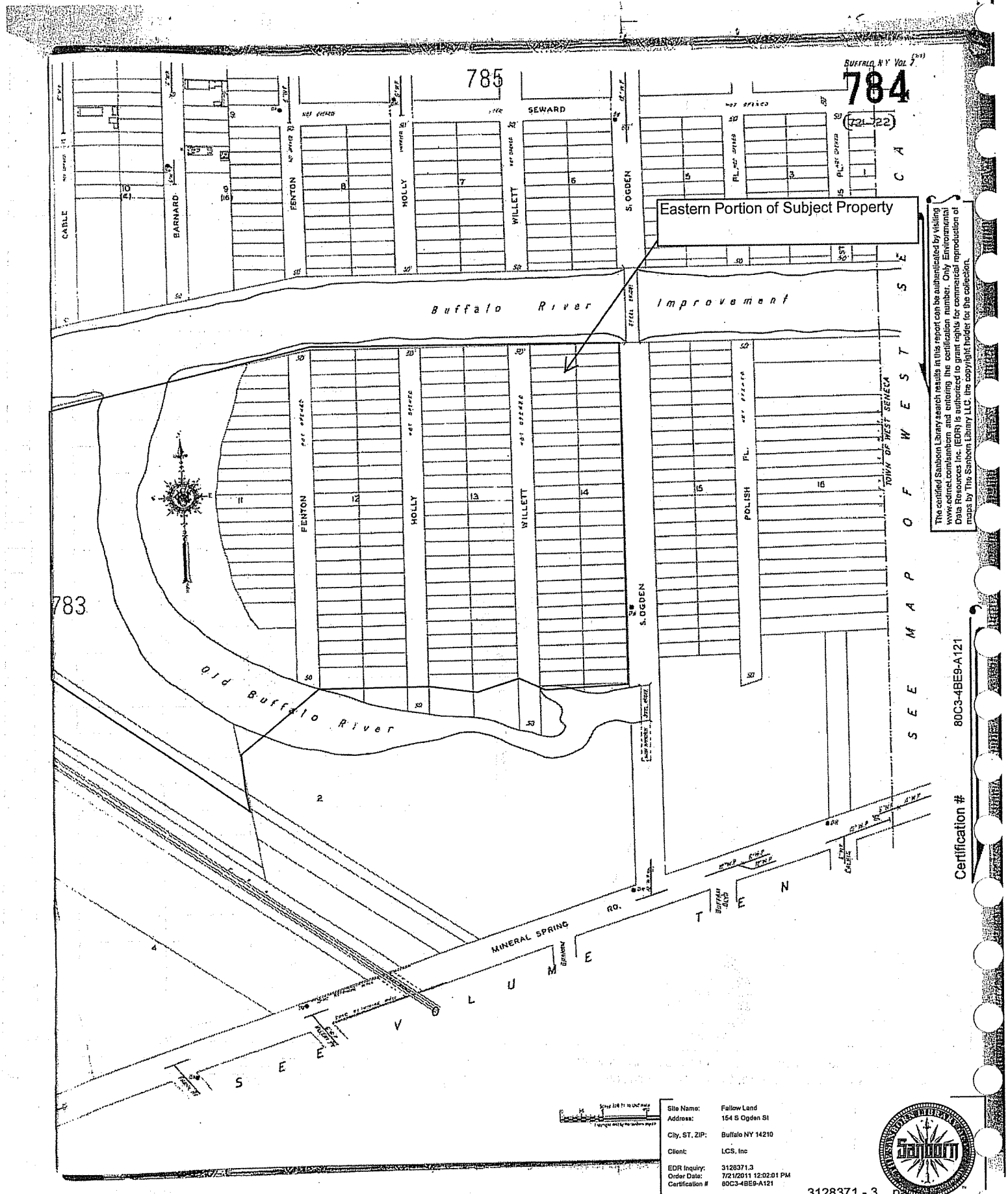


Volume 7, Sheet 784
Volume 7, Sheet 183

0 Feet 150 300 600

N

1939 Certified Sanborn Map



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Certification # 80C3-4BE9-A121

Site Name:	Fallow Land
Address:	154 S Ogden St
City, ST, ZIP:	Buffalo NY 14210
Client:	LCS, Inc
EDR Inquiry:	3128371.3
Order Date:	7/21/2011 12:02:01 PM
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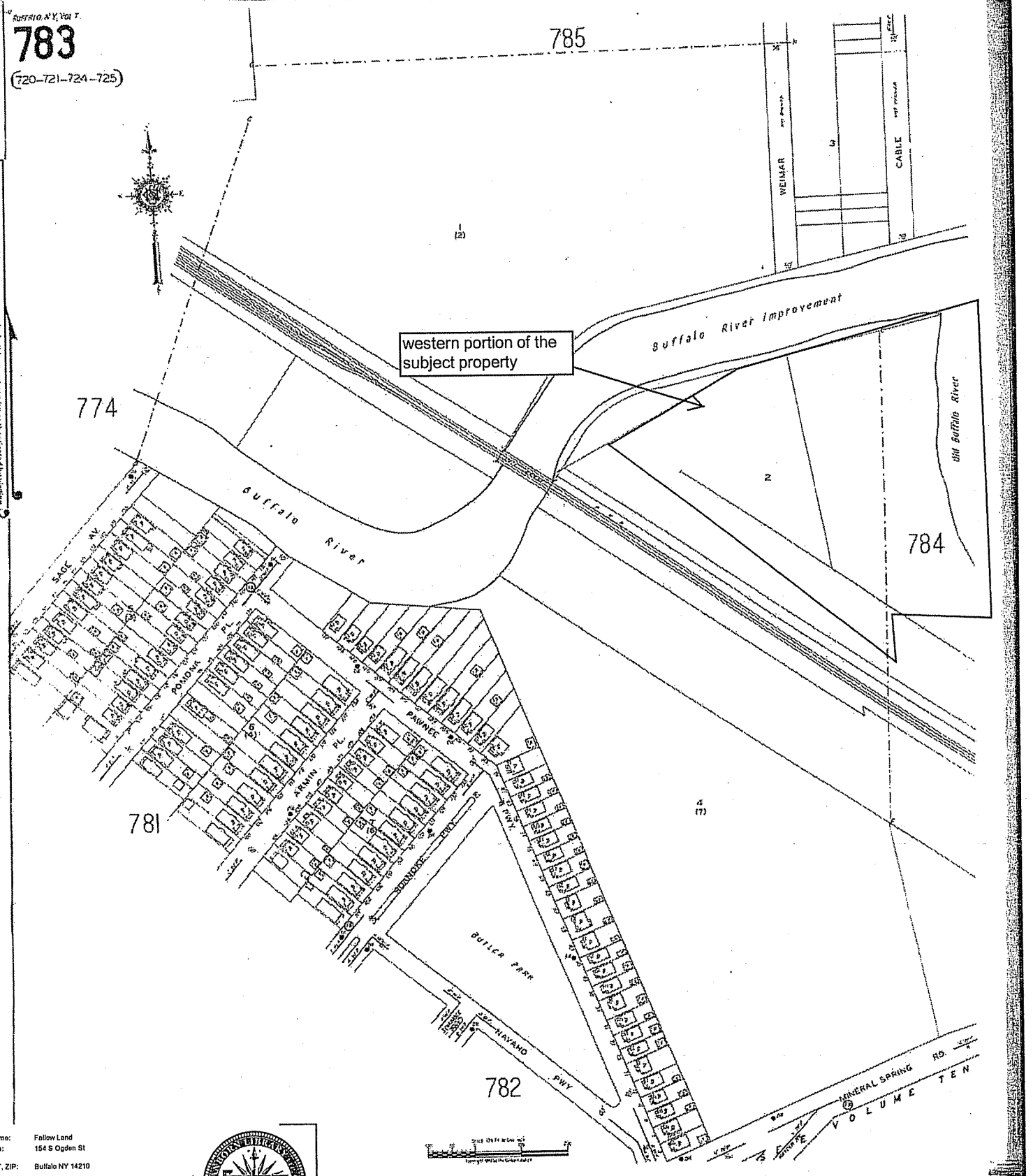
Copyright:	1939

1939 Certified Sanborn Map



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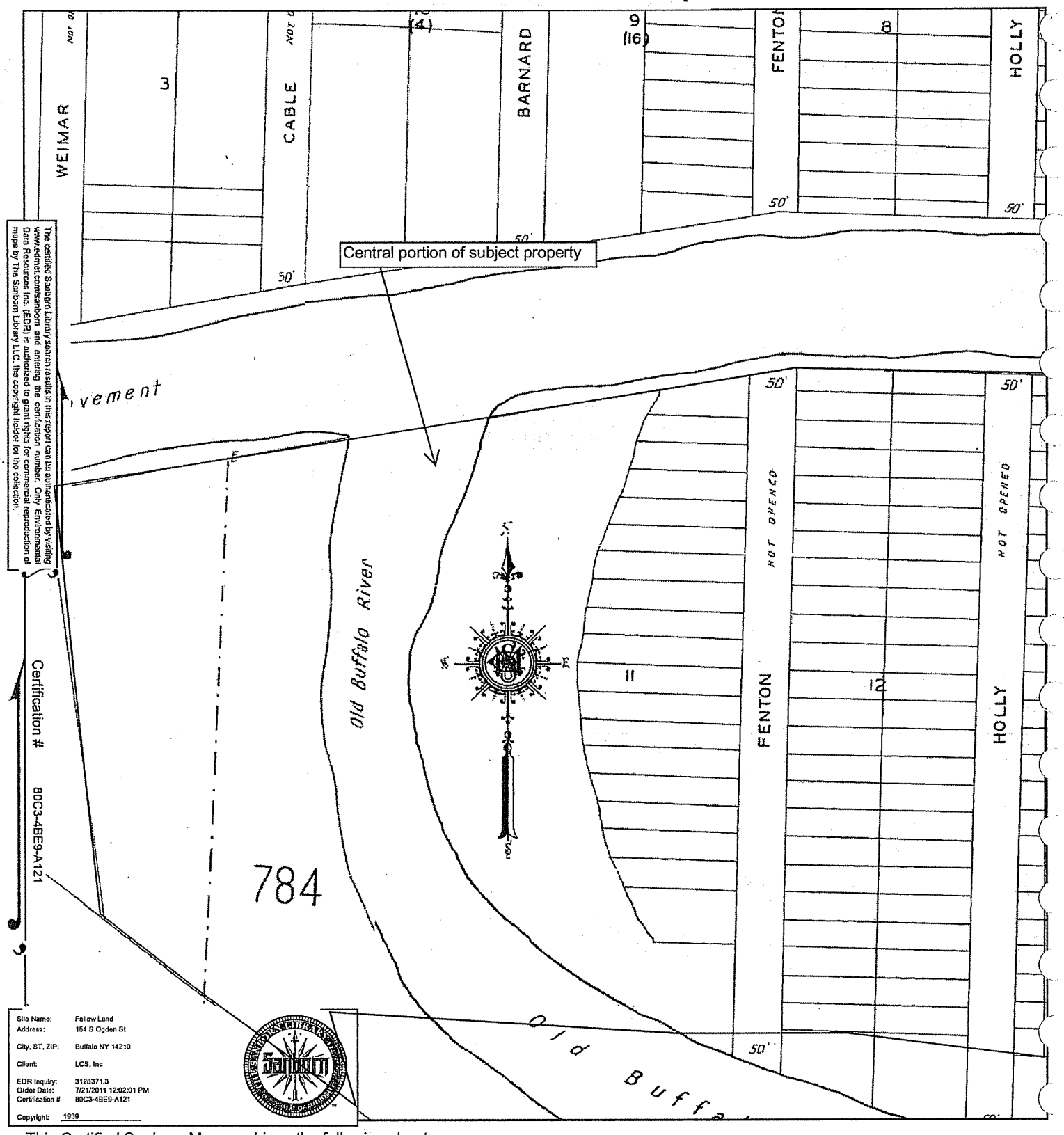
City, ST, ZIP:	Buffalo NY 14210
Client:	LCS, Inc
EDR Inquiry:	3128371.3
Order Date:	7/21/2011 12:02:01 PM
Certification #	80C3-4BE9-A121
Copyright:	1939

1939 Certified Sanborn Map



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Client:	LCS, Inc
EDR Inquiry:	3128371.3
Order Date:	7/21/2011 12:02:01 PM
Certification #	80C3-4BE9-A121
Copyright:	1939

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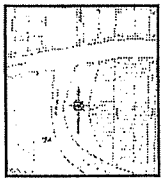
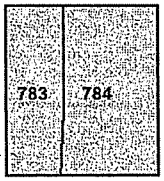




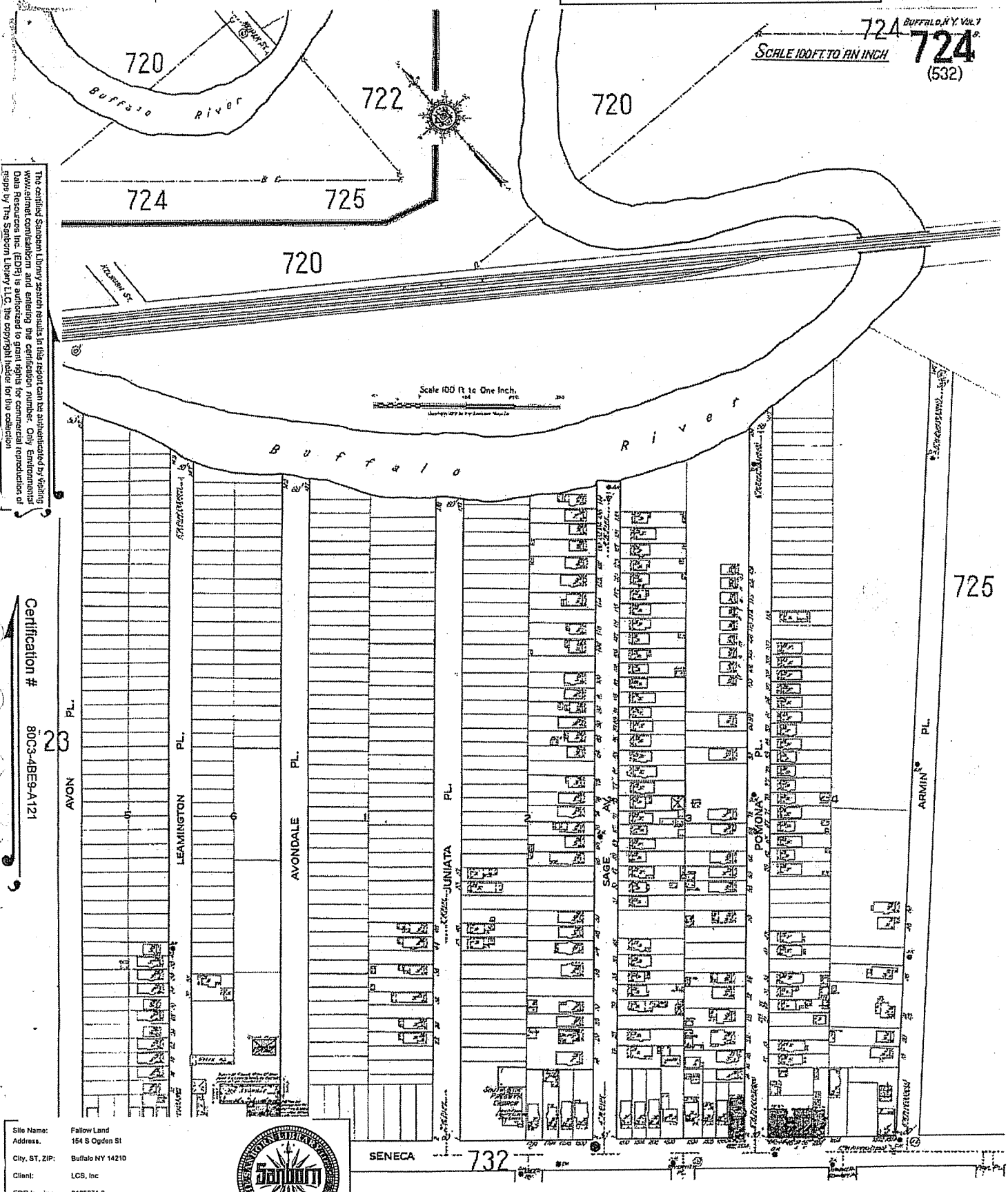
Volume 7, Sheet 784
Volume 7, Sheet 783

0 Feet 150 300 600

N

1917 Certified Sanborn Map

subject property not identified on this map



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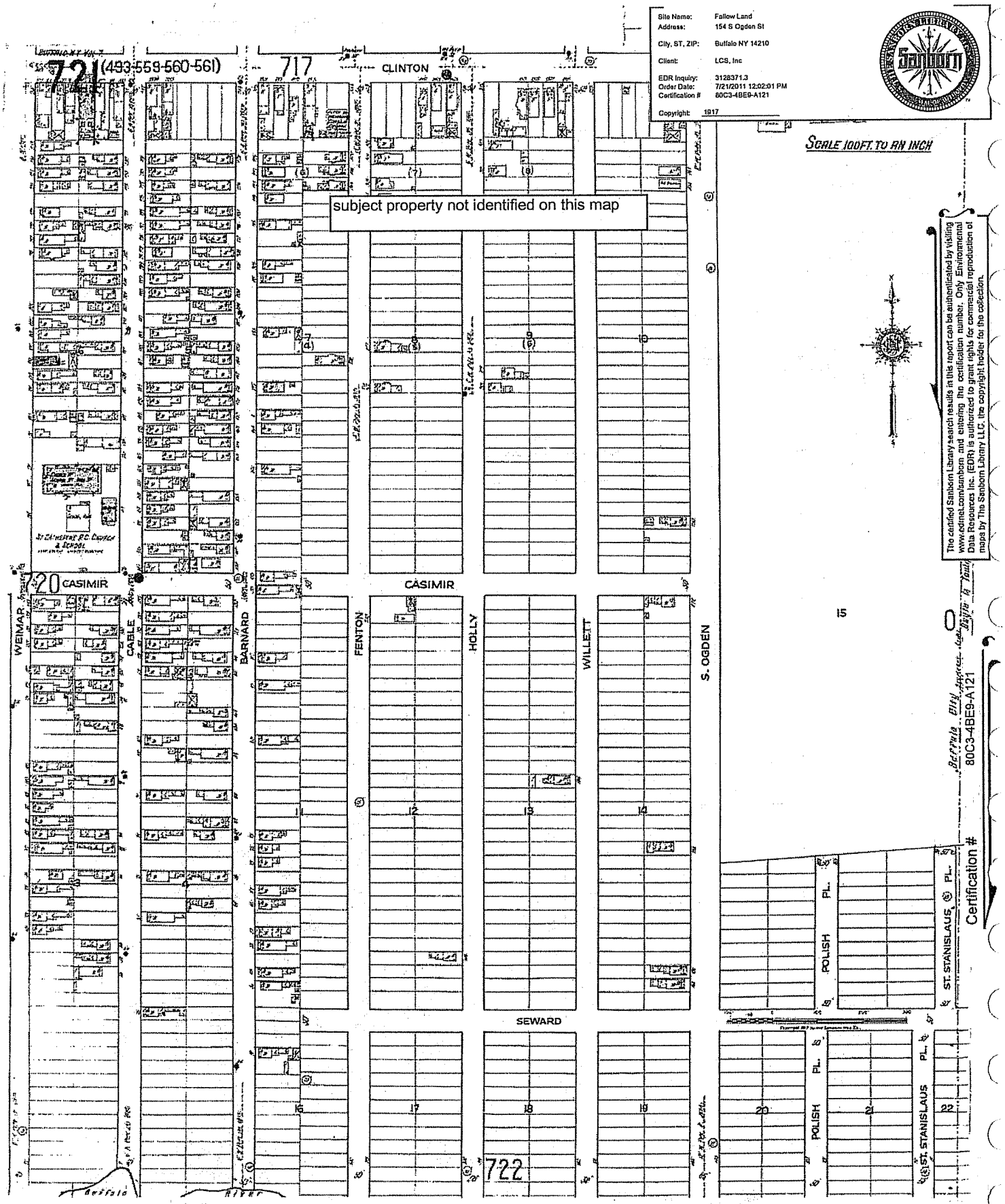
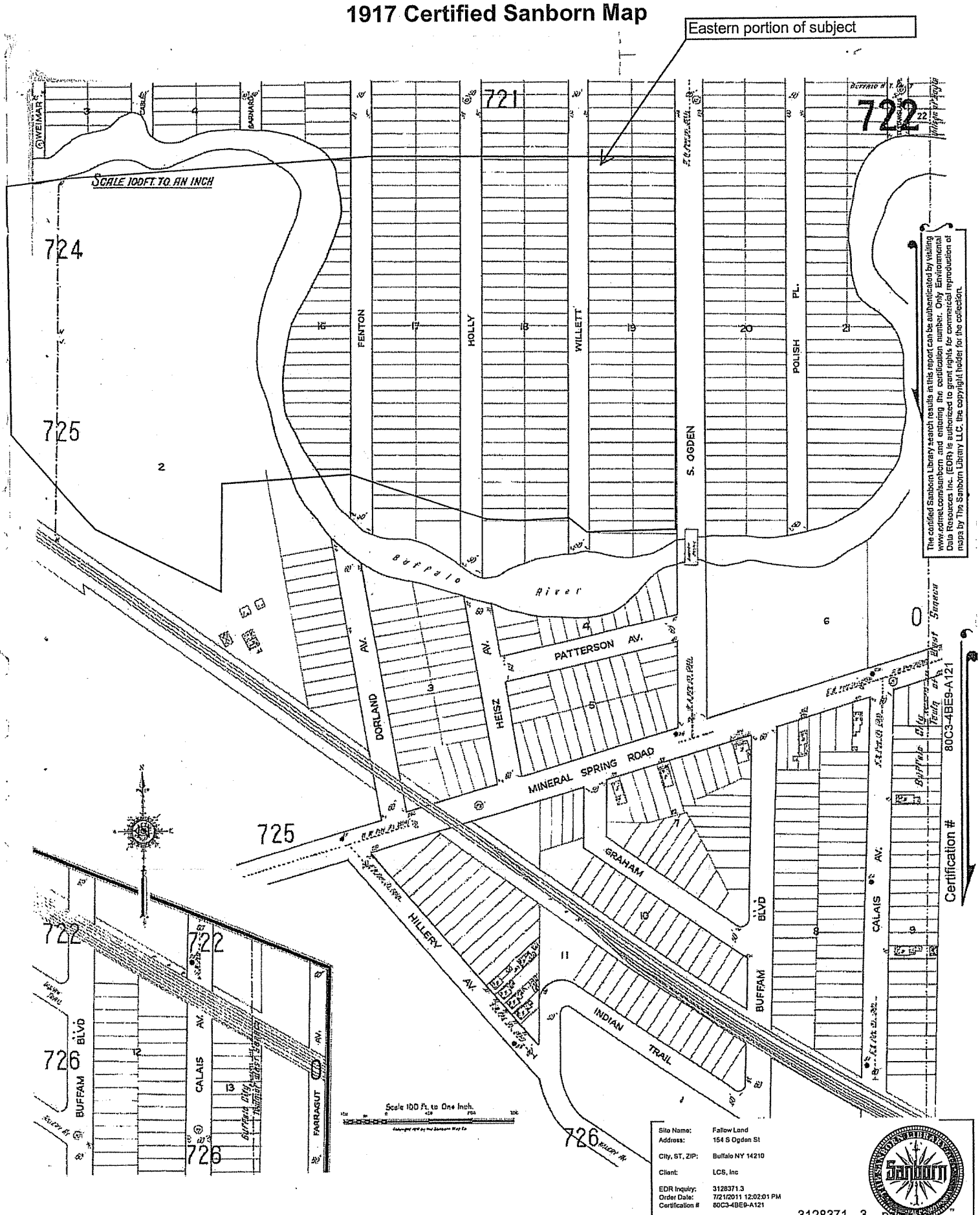
Certification # 80C3-4BE9-A121

Site Name:	Fallow Land
Address:	154 S Ogden St
City, ST, ZIP:	Buffalo NY 14210
Client:	LCS, Inc
EDR Inquiry:	3128371.3
Order Date:	7/21/2011 12:02:01 PM
Certification #	80C3-4BE9-A121
Copyright:	1917

1917 Certified Sanborn Map



1917 Certified Sanborn Map



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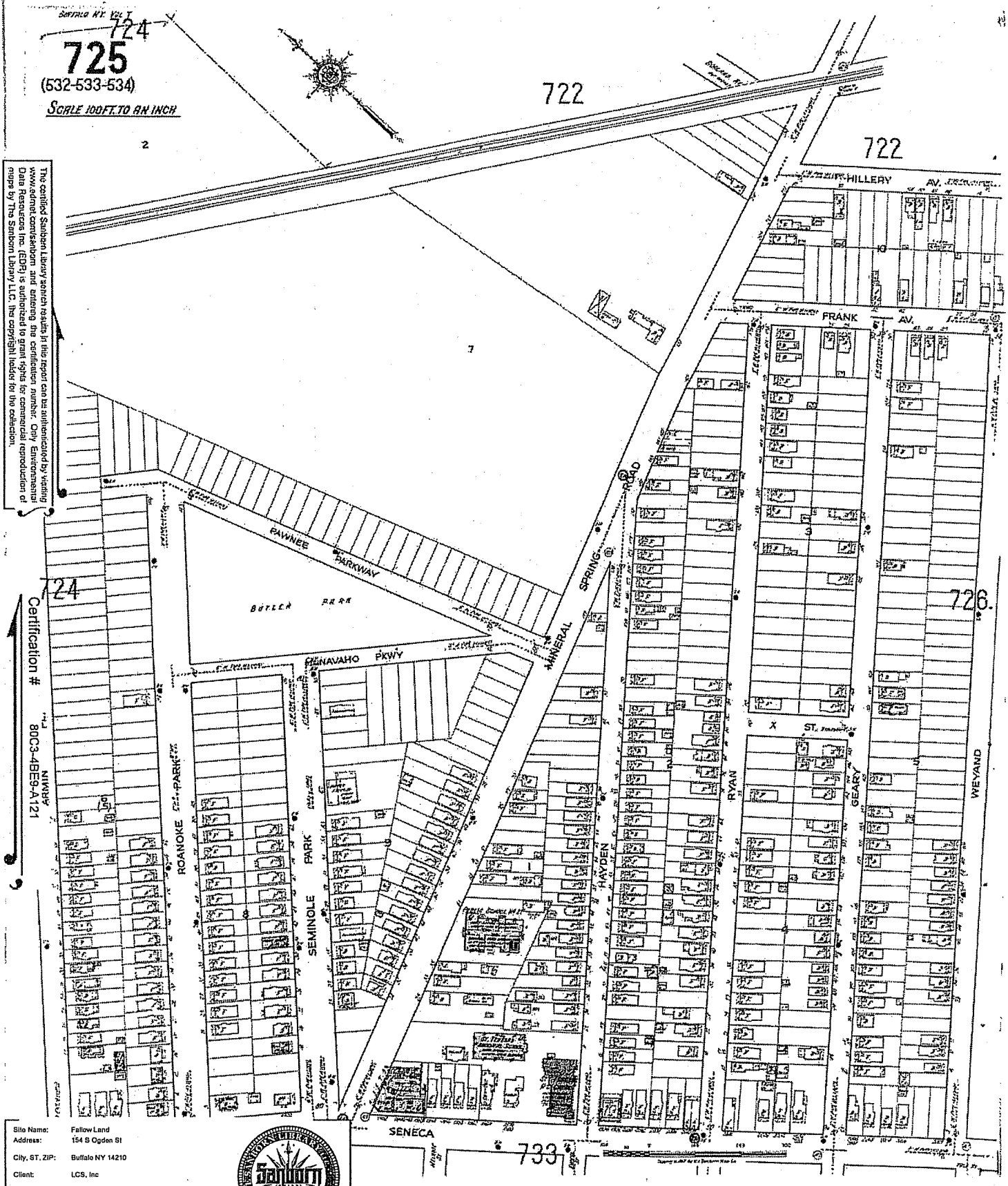
City, ST, ZIP:	Buffalo NY 14210
Client:	LCS, Inc
EDR Inquiry:	3128371.3
Order Date:	7/21/2011 12:02:01 PM
Certification #	80C3-4BE9-A121
Copyright:	1917

1917 Certified Sanborn Map

subject property not identified on this map



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Site Name:	Fallow Land
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City, ST, ZIP:	Buffalo NY 14210
Client:	LCS, Inc
EDR Inquiry:	3128371.3
Order Date:	7/21/2011 12:02:01 PM
Certification #	80C3-4BE9-A121
Copyright:	1917

Due Date: _____

LCS, INC. AERIAL PHOTOGRAPH REVIEW

PROJECT #: 113201121
SITE ADDRESS: 154 S. Caden St. Buffalo, NY
OFFICE REVIEWED AT: E.C.S.W.C.D.
DATE REVIEWED: 7/20/11

DATE: PHOTO ID / DESCRIPTION

Yr. 00: Subject property: Fallow land
North: Buffalo River.
South: Fallow land
East: Resi
West: Fallow land + R.R. tracks

Yr. ___: Subject property: SAA
North:
South:
East: SAA
West:

Yr. 90: Subject property: SAA
North:
South:
East: SAA
West:

Yr. 78: Subject property: No Photo
North:
South:
East:
West:

Yr. 06: Subject property: No Photo
North:
South:
East:
West:

Yr. 58: Subject property: Fallow land poss. pond on S portion
North: Creek.
South: Fallow land.
East: Fallow land.
West: Fallow land + R.R. tracks

Yr. 38: Subject property: Fallow land branch of Buffalo River.
North: SAA
South: SAA
East: SAA + Buff. River
West: SAA

Yr. ___: Subject property:
North:
South:
East:
West:

**Please add site arrows, dates and north arrows to the copies of the aerials prior to sending them to Buffalo.

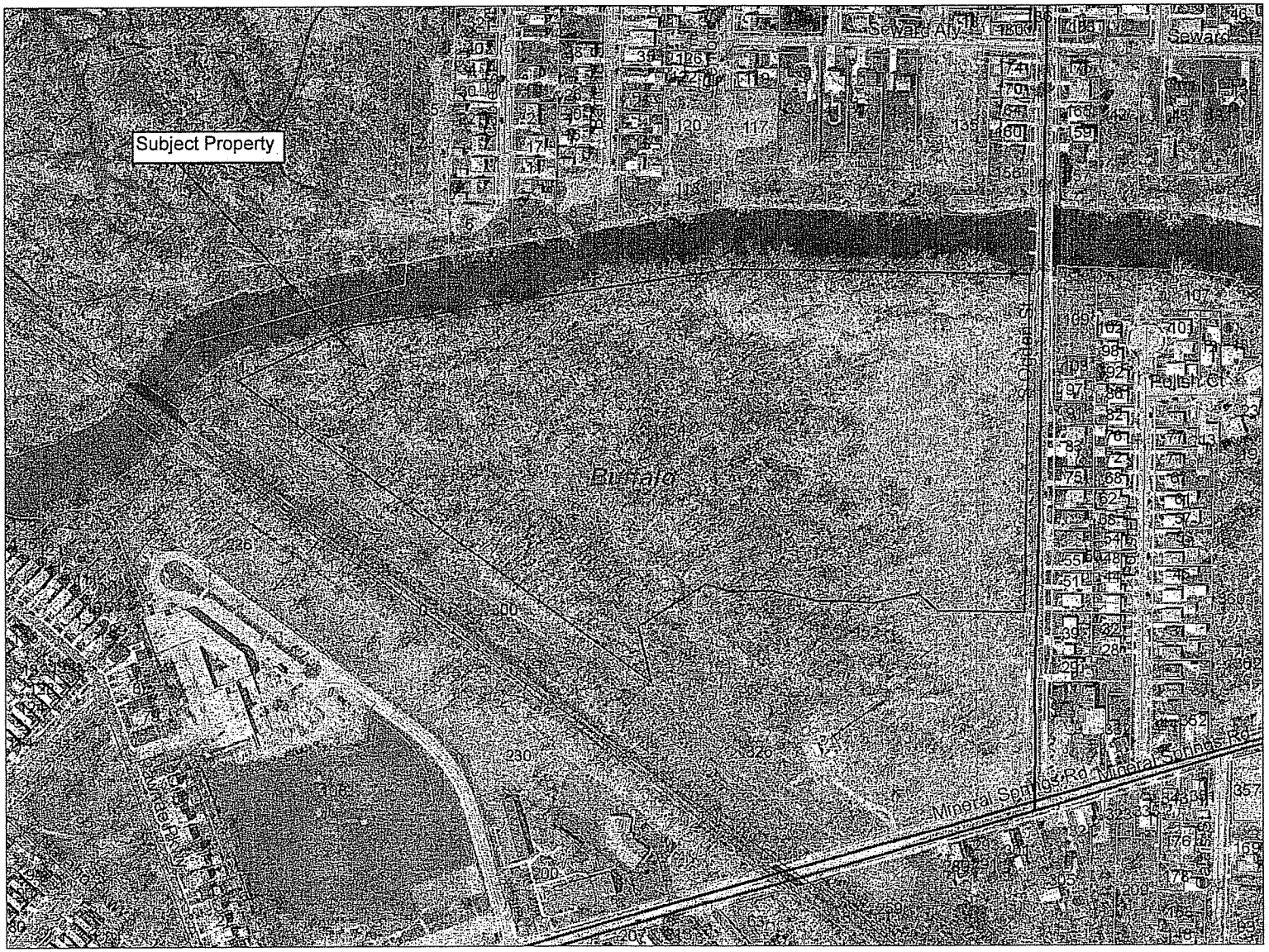
Rev. Date 7-2004

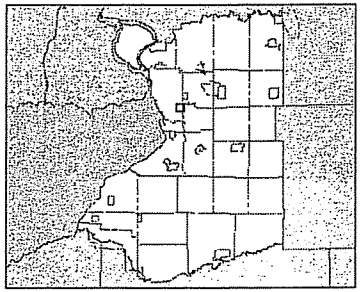
AERIAL PHOTOGRAPHS

1990

North

Erie County On-Line Mapping System





Legend

- Railroads
- Streets and Highways
  - Interstate
  - Primary State Road
  - Secondary State Road
  - County Road
  - Local Road
- Parcels
- 1ft Color Orthos
  - Red: Band_1
  - Green: Band_2
  - Blue: Band_3
- 2ft Color Orthos
  - Red: Band_1
  - Green: Band_2
  - Blue: Band_3

1: 4,287

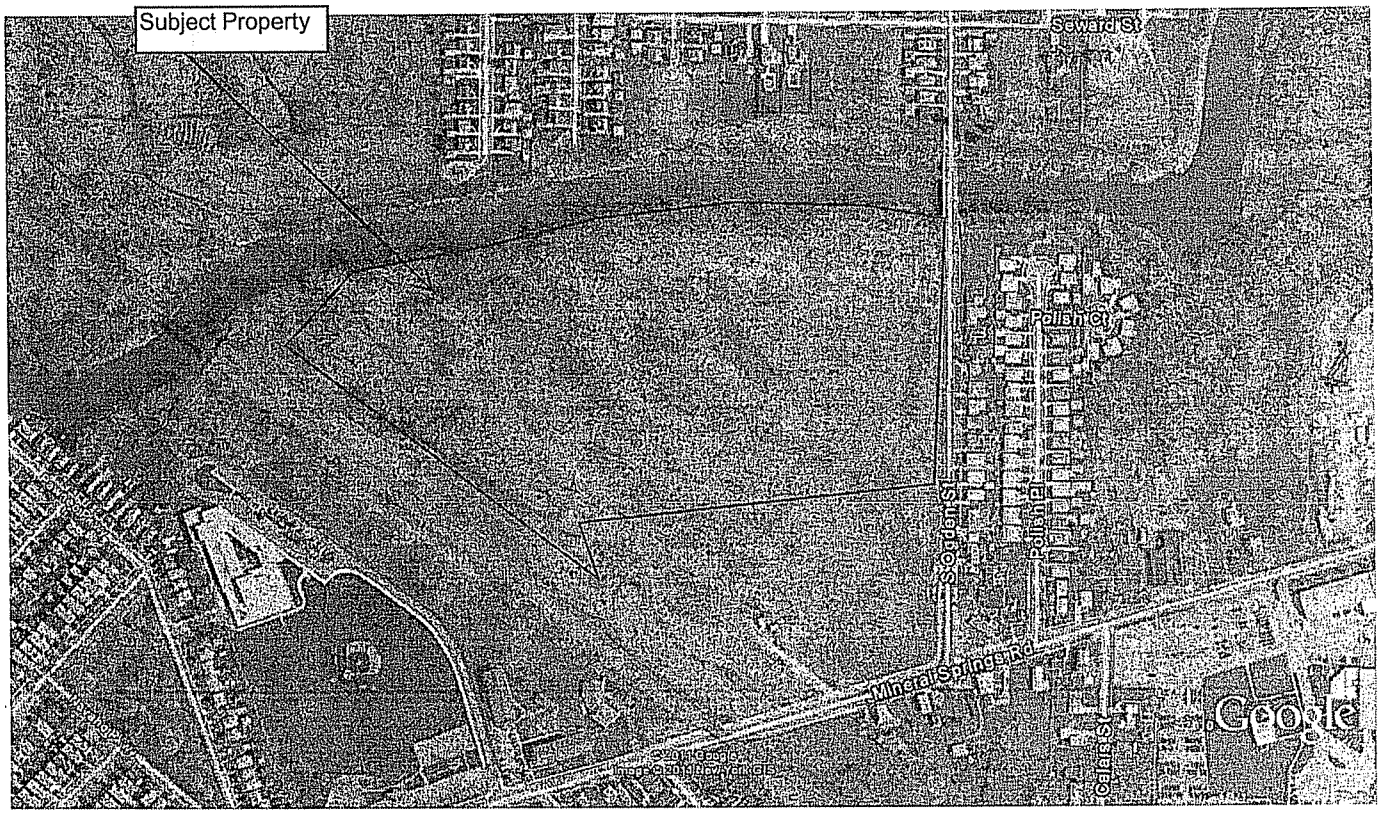
Notes

Enter Map Description

0.1 0 0.07 0.1 Miles

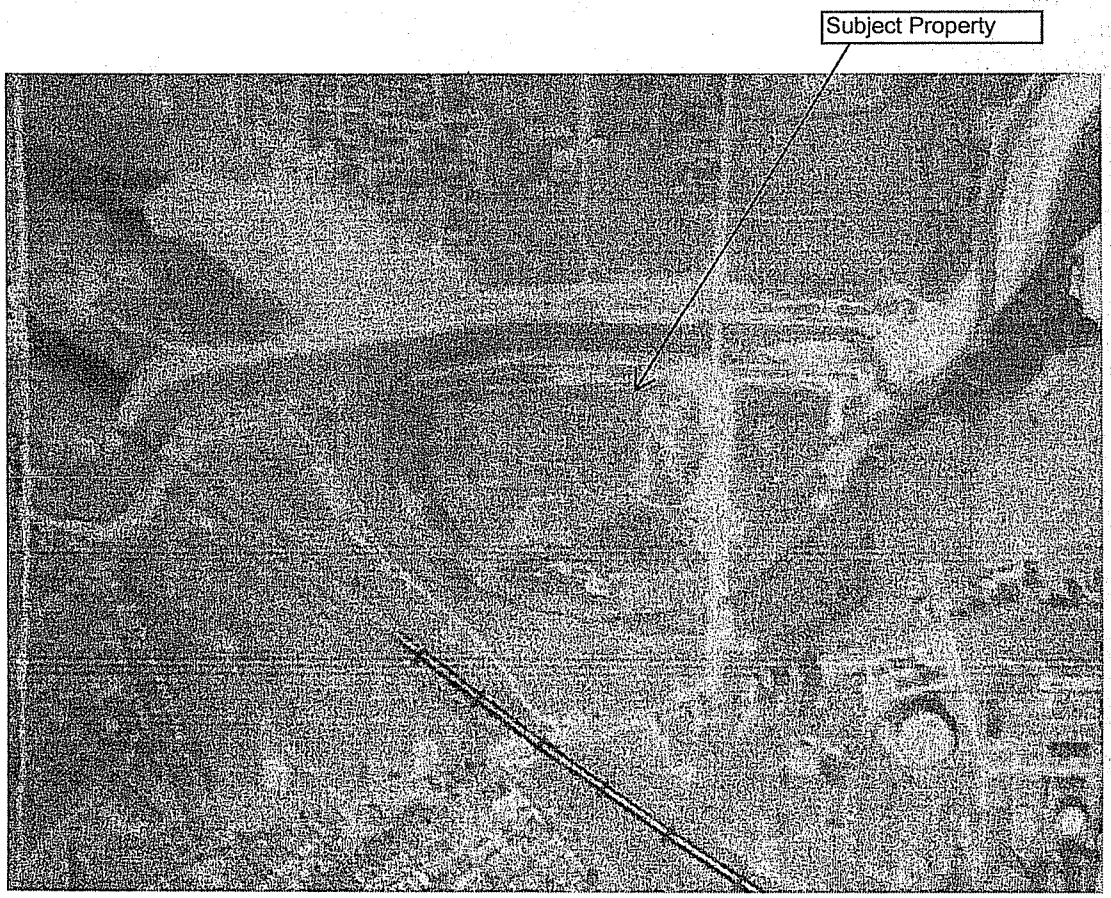
Erie County and its officials and employees assume no responsibility or legal liability for the accuracy, completeness, reliability, timeliness, or usefulness of any information provided. Tax parcel data was prepared for tax purposes only and is not to be reproduced or used for surveying or conveyancing.

ERIE COUNTY, NEW YORK
DEPARTMENT OF ENVIRONMENT & PLANNING
OFFICE OF GEOGRAPHIC INFORMATION SERVICES


Subject Property
Seward St
Polish Ct
Polish Rd
Stubbs Overpass
Vincent Springs Rd
Google

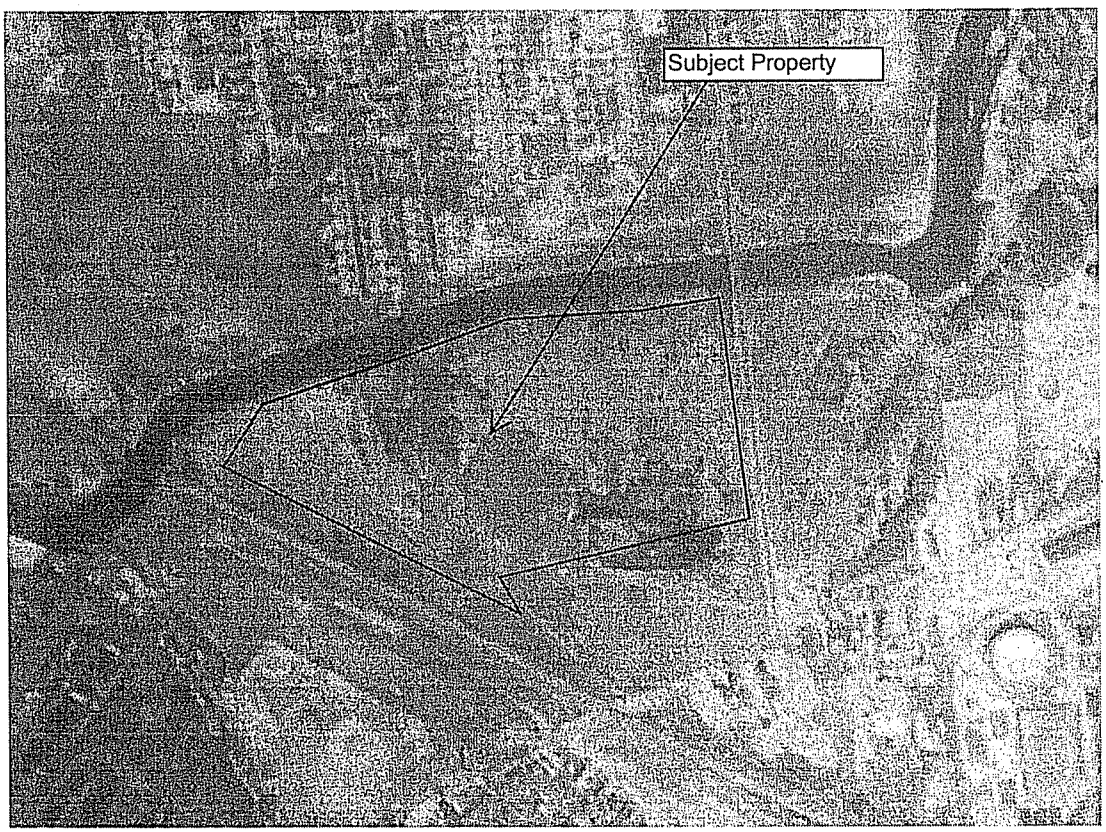
2002

North



1938

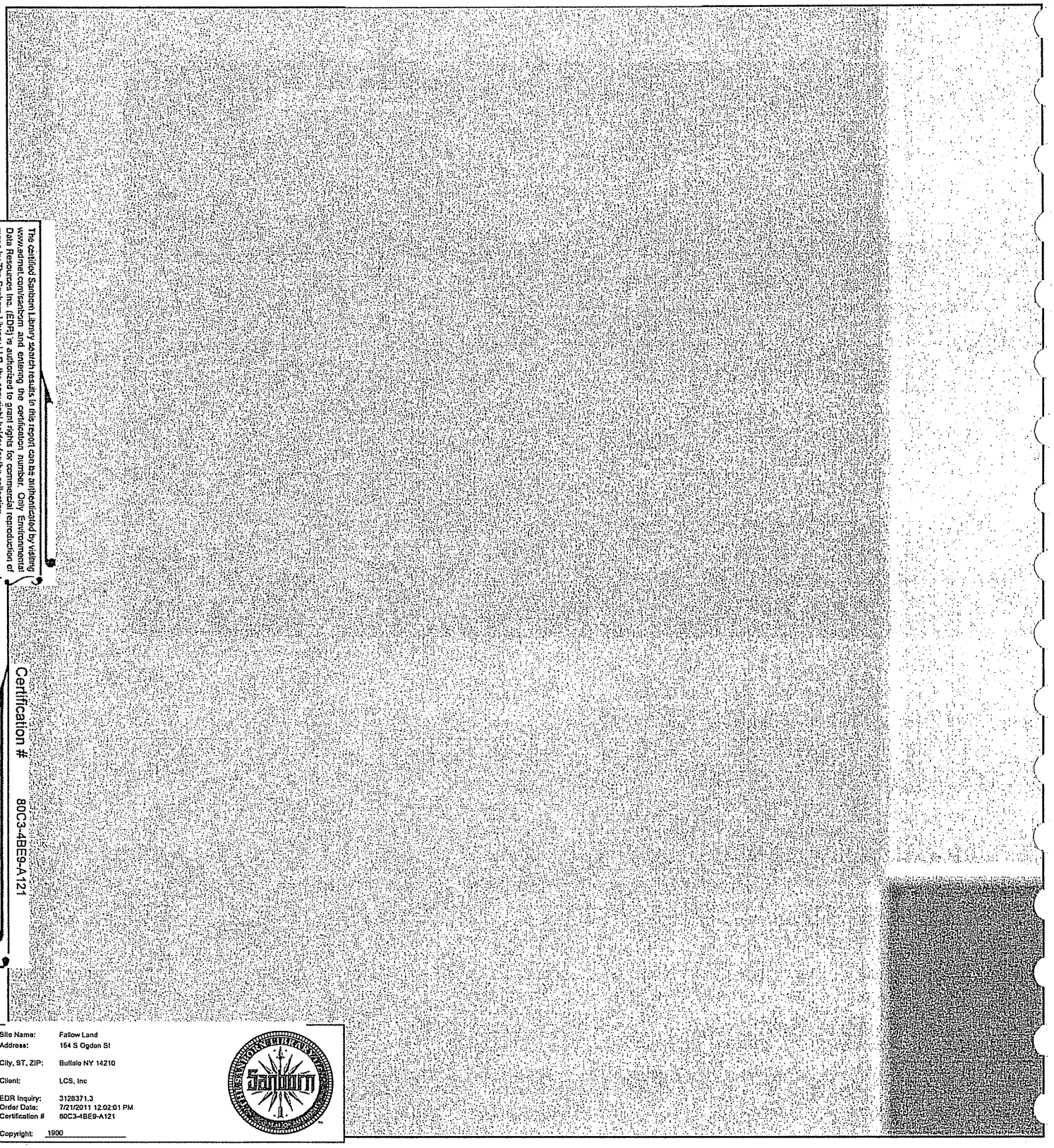
North



1958

North

1900 Certified Sanborn Map



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Certification # 80C3-4BE9-A121

Site Name: Fallow Land
Address: 154 S Ogden St
City, ST, ZIP: Buffalo NY 14210
Client: LCS, Inc
EDR Inquiry: 3128371.3
Order Date: 7/21/2011 12:02:01 PM
Certification # 80C3-4BE9-A121
Copyright: 1900

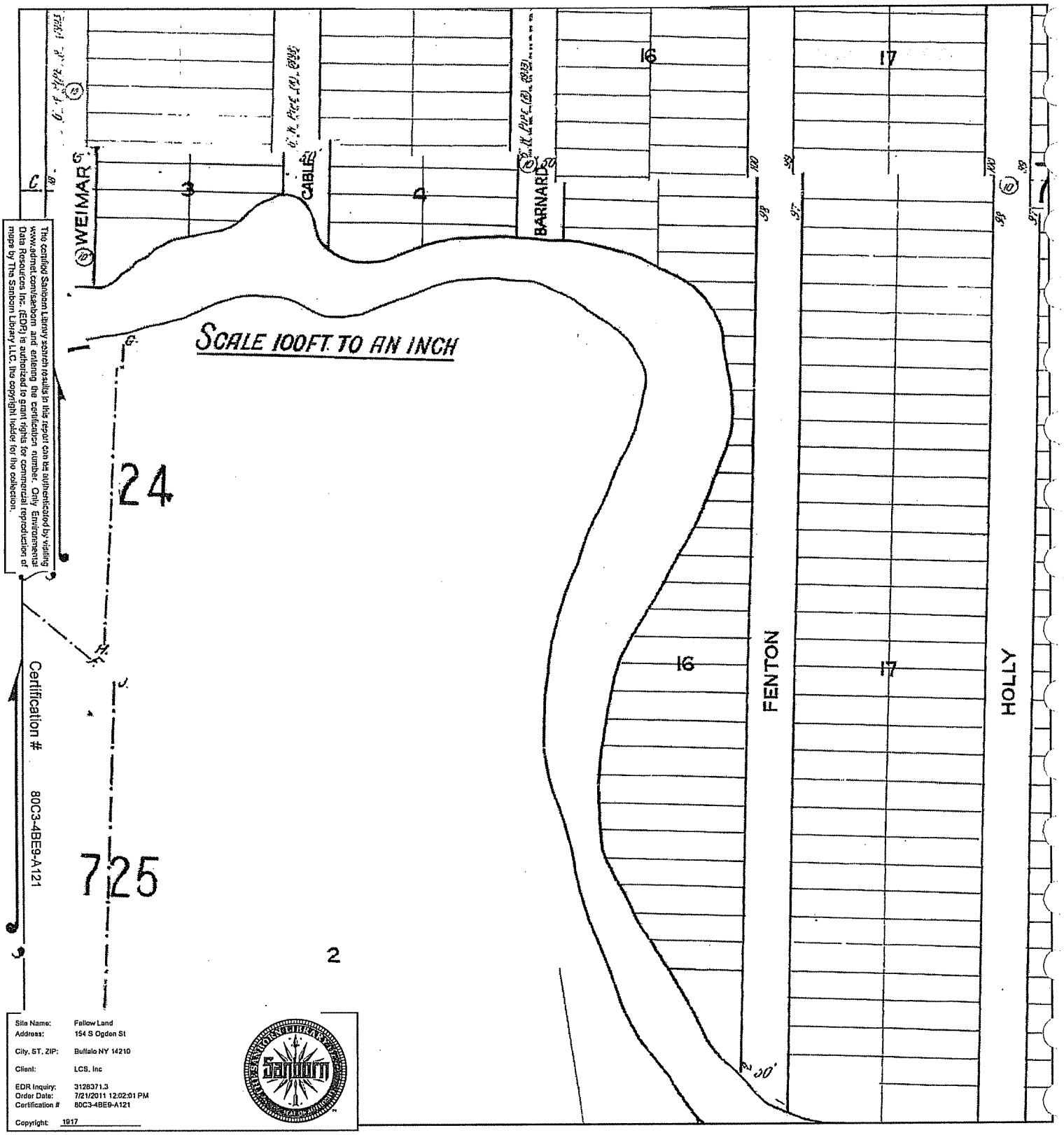
This Certified Sanborn Map combines the following sheets.
Outlined areas indicate map sheets within the collection.

0 Feet 150 300 60

N

HISTORICAL RECORDS

1917 Certified Sanborn Map



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Site Name:	Fallow Land
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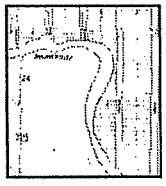
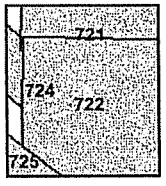
Certification #	80C3-4BE9-A121
Copyright:	1917

This Certified Sanborn Map combines the following sheets.
Outlined areas indicate map sheets within the collection.





Volume 7, Sheet 724
Volume 7, Sheet 721
Volume 7, Sheet 722
Volume 7, Sheet 725

0 Feet 150 300 600

N

N River
E - 39-109 S. ogden
S - 152 S. ogden
W - 326+300 Mineral Springs Rd.

LCS, INC.
HISTORICAL RECORDS REVIEW

PROJECT #: 11B2011.21
SITE ADDRESS: 154 Ogden St, Buffalo, NY
OFFICE REVIEWED AT: BECRIS
DATE REVIEWED: 7/20/11

Polk Directories: Attempt to identify former occupants dating back to at least the 1930s, if possible. Conduct the searches in approximate five year intervals identifying both the subject property and the adjacent properties. (Remember that the immediately adjacent listed site may actually be located on the opposite side of the street.)

YEAR		OCCUPANTS (address in parentheses)
2010	Subject Property	N/L.
	Adjacent/Nearby Properties	39, 43, 51, 55, 61, 65, 71, 75, 83, 91, 97, 103 - Res 300+326 Mineral Springs - N/L.
2005	Subject Property	SAA
	Adjacent/Nearby Properties	SAA
1999	Subject Property	SAA
	Adjacent/Nearby Properties	SAA
1993	Subject Property	SAA
	Adjacent/Nearby Properties	SAA
	Subject Property	
	Adjacent/Nearby Properties	
	Subject Property	
	Adjacent/Nearby Properties	

Fallow Land
154 S Ogden St
Buffalo, NY 14206

Inquiry Number: 3128371.4
July 21, 2011

The EDR-City Directory Abstract

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

Executive Summary

Findings

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OR DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction orforecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Abstract is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Abstract includes a search and abstract of available city directory data. For each address, the directory lists the name of the corresponding occupant at five year intervals.

Business directories including city, cross reference and telephone directories were reviewed, if available, at approximately five year intervals for the years spanning 1925 through 2008. This report compiles information gathered in this review by geocoding the latitude and longitude of properties identified and gathering information about properties within 660 feet of the target property.

A summary of the information obtained is provided in the text of this report.

RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

Year	Source	TP	Adjoining	Text Abstract	Source Image
2008	Polk City Directories	-	-	-	-
2001	EQUIFAX Polk City Directory	-	-	-	-
1998	The Polk Company,City Directory Division	-	-	-	-
1996	R.L. Polk Company	-	-	-	-
1992	R. L. Polk Co., Publishers	-	-	-	-
1985	R. L. Polk Co., Publishers	-	-	-	-
1980	R. L. Polk Co., Publishers	-	-	-	-
1975	R. L. Polk Co.	-	-	-	-
1970	R.L. Polk Company, Inc., Publishers	-	-	-	-
1964	R. L. Polk Co., Inc., Publishers	-	-	-	-
1960	Polk-Clement Directory Co. Inc.,	-	-	-	-
1955	Polk-Clement Directory Co. Inc.,	-	-	-	-
1950	Polk-Clement Directory Co. Inc.,	-	-	-	-
1946	Polk-Clement Directory Co. Inc.,	-	-	-	-
1940	Polk-Clement Directory Co. Inc.,	-	-	-	-
1935	Polk-Clement Directory Co. Inc.	-	-	-	-
1930	Polk-Clement Directory Co. Inc.,	-	-	-	-
1925	Polk-Clement Directory Co., Publishers	-	-	-	-

FINDINGS

TARGET PROPERTY INFORMATION

ADDRESS

154 S Ogden St
Buffalo, NY 14206

FINDINGS DETAIL

Target Property research detail.

No Addresses Found

FINDINGS

ADJOINING PROPERTY DETAIL

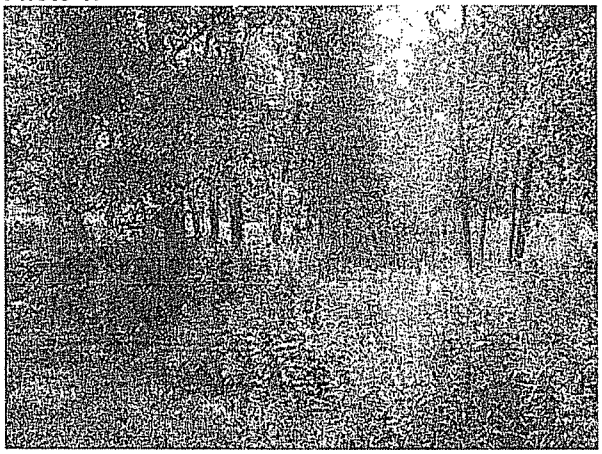
The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

No Addresses Found

PHOTOGRAPHS

PHOTOGRAPH VIEWS

Photo 1:



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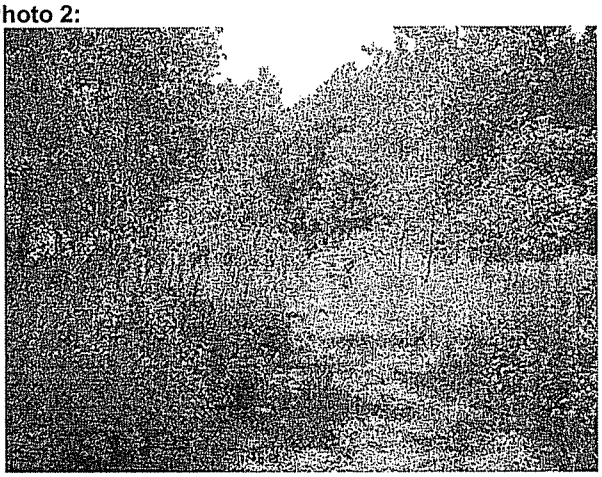

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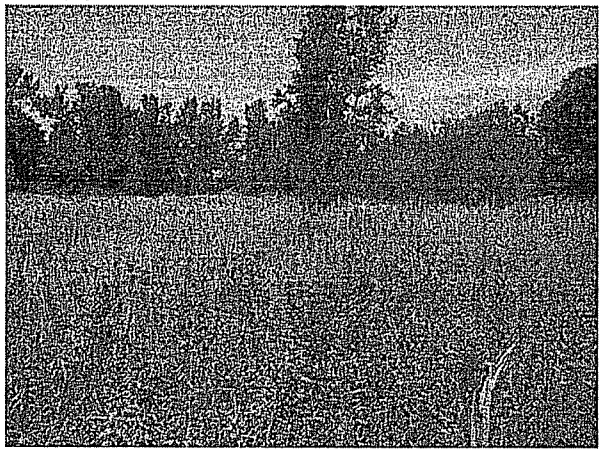

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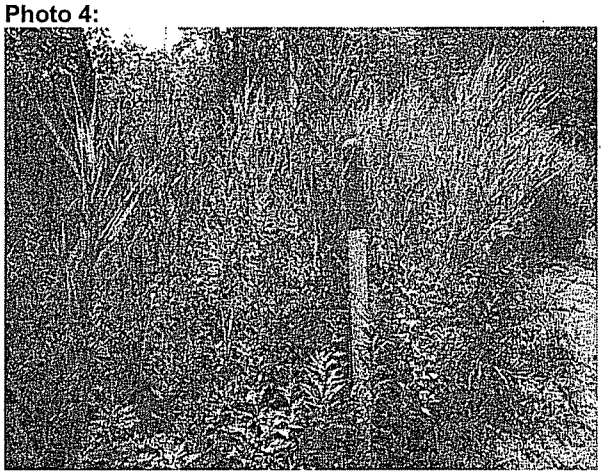


Photo 1: View of the subject property.

Photo 2: View of the subject property.

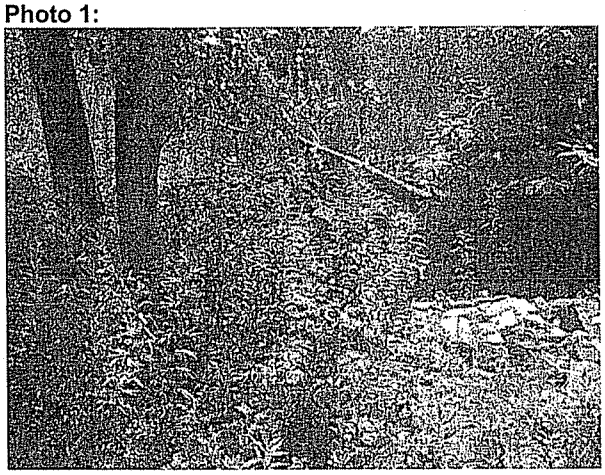
Photo 3: View of the subject property.

Photo 4: View of the gas pipeline marker on-site.

LCS, INC. 40 LA RIVIERE DRIVE, SUITE 120 BUFFALO, NEW YORK 14202 Project No. 11B2011.21 Photo Date: 7/20/11	SITE PHOTOGRAPHS Fallow Land 154 South Ogden Street Buffalo, New York

PHOTOGRAPH VIEWS

Photo 1:



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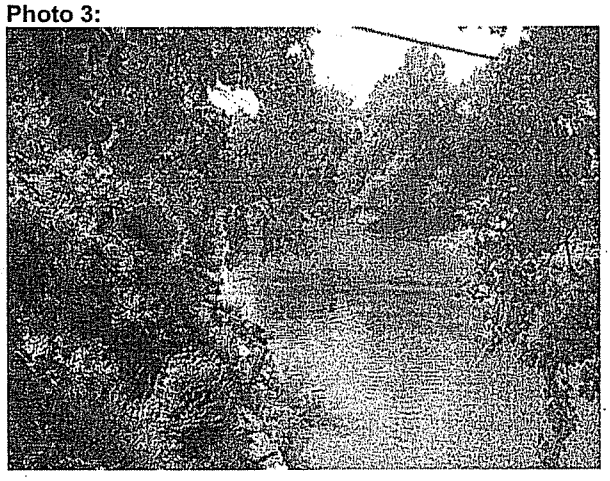

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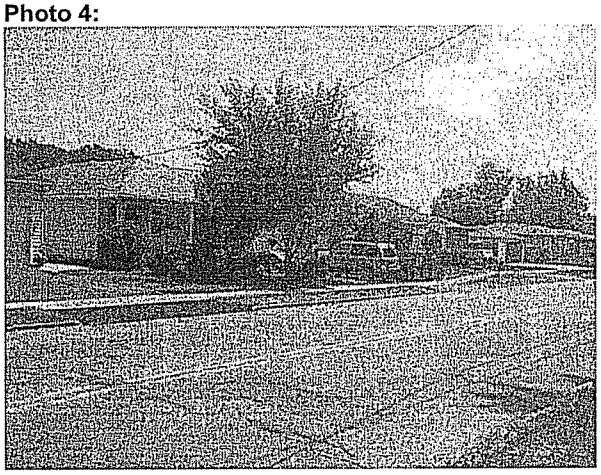

Photo 1: View of typical dumping on-site.

Photo 2: View of typical dumping on-site.

Photo 3: View of the north adjacent river.

Photo 4: View of the east adjacent properties.

LCS, INC. 40 LA RIVIERE DRIVE, SUITE 120 BUFFALO, NEW YORK 14202 Project No. 11B2011.21 Photo Date: 7/20/11	SITE PHOTOGRAPHS Fallow Land 154 South Ogden Street Buffalo, New York

PHOTOGRAPH VIEWS

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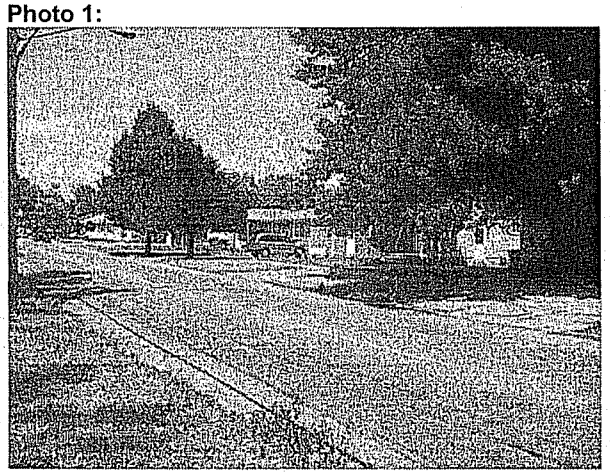

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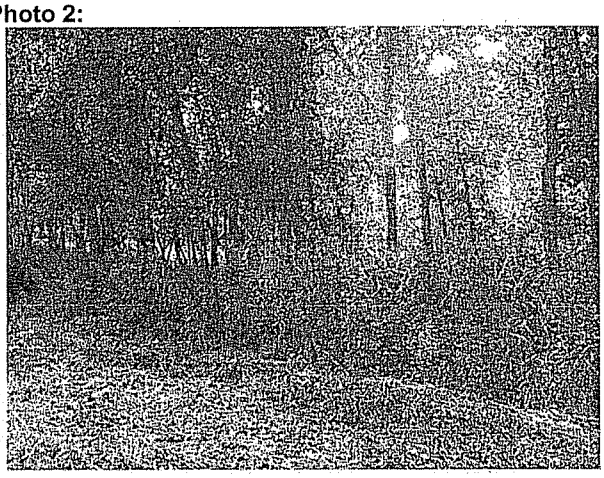

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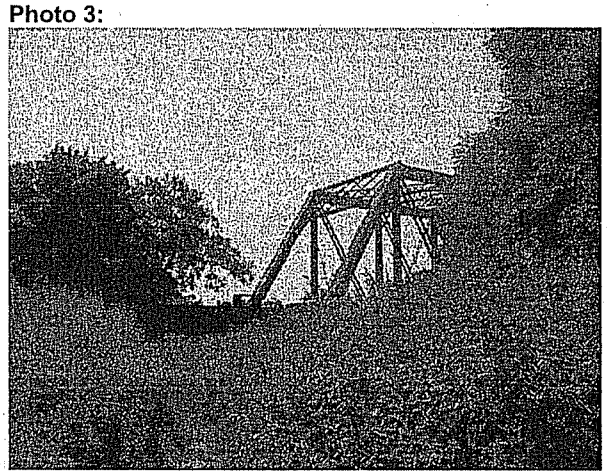

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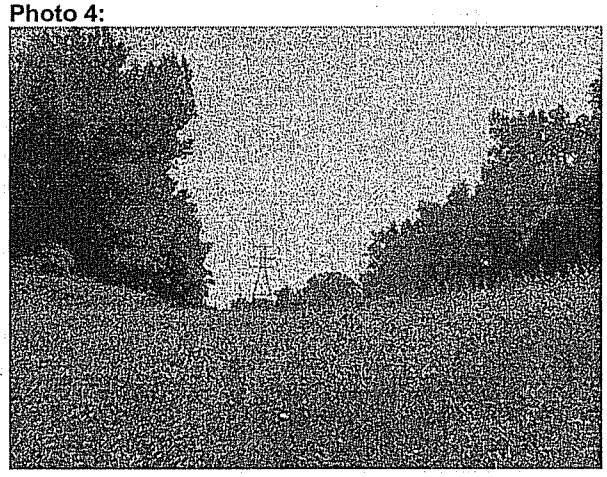

Photo 1: View of the east adjacent properties.

Photo 2: View of the south adjacent property.

Photo 3: View of the west adjacent property.

Photo 4: View of the west adjacent property.

LCS, INC. 40 LA RIVIERE DRIVE, SUITE 120 BUFFALO, NEW YORK 14202 Project No. 11B2011.21 Photo Date: 7/20/11	SITE PHOTOGRAPHS Fallow Land 154 South Ogden Street Buffalo, New York

APPENDICES

DATABASE SEARCH REPORT

Fallow Land
154 S Ogden St
Buffalo, NY 14210

Inquiry Number: 3128371.2s
July 20, 2011

The EDR Radius Map™ Report with GeoCheck®

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
Toll Free: 800.352.0050
www.edrnet.com

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Detail Map	3
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Map Findings	7
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Government Records Searched/Data Currency Tracking	GR-1

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Physical Setting Source Records Searched	A-22

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with any questions or comments.

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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 1527-05) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

154 S OGDEN ST
BUFFALO, NY 14210

COORDINATES

Latitude (North):	42.864000 - 42° 51' 50.4"
Longitude (West):	78.806000 - 78° 48' 21.6"
Universal Tranverse Mercator:	Zone 17
UTM X (Meters):	679231.6
UTM Y (Meters):	4747832.5
Elevation:	582 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	42078-G7 BUFFALO SE, NY
Most Recent Revision:	1965
North Map:	42078-H7 BUFFALO NE, NY
Most Recent Revision:	1965

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

EXECUTIVE SUMMARY

Federal CERCLIS list

CERCLIS---------- Comprehensive Environmental Response, Compensation, and Liability Information System
FEDERAL FACILITY---------- Federal Facility Site Information listing

Federal CERCLIS NFRAP site List

CERC-NFRAP---------- CERCLIS No Further Remedial Action Planned

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

US ENG CONTROLS---------- Engineering Controls Sites List
US INST CONTROL---------- Sites with Institutional Controls

Federal ERNS list

ERNS---------- Emergency Response Notification System

State- and tribal - equivalent CERCLIS

VAPOR REOPENED---------- Vapor Intrusion Legacy Site List

State and tribal leaking storage tank lists

INDIAN LUST---------- Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

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

State and tribal institutional control / engineering control registries

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

State and tribal voluntary cleanup sites

INDIAN VCP---------- Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

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

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS---------- A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

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

Local Lists of Hazardous waste / Contaminated Sites

US CDL---------- Clandestine Drug Labs
DEL SHWS---------- Delisted Registry Sites
US HIST CDL---------- National Clandestine Laboratory Register

Local Lists of Registered Storage Tanks

HIST AST---------- Historical Petroleum Bulk Storage Database

Local Land Records

LIENS 2---------- CERCLA Lien Information
LUCIS---------- Land Use Control Information System

Records of Emergency Release Reports

HMIRS---------- Hazardous Materials Information Reporting System

Other Ascertainable Records

DOT OPS---------- Incident and Accident Data
DOD---------- Department of Defense Sites
FUDS---------- Formerly Used Defense Sites
CONSENT---------- Superfund (CERCLA) Consent Decrees
ROD---------- Records Of Decision
UMTRA---------- Uranium Mill Tailings Sites
MINES---------- Mines Master Index File
TRIS---------- Toxic Chemical Release Inventory System
TSCA---------- Toxic Substances Control Act
FTTS---------- FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
HIST FTTS---------- FIFRA/TSCA Tracking System Administrative Case Listing
SSTS---------- Section 7 Tracking Systems

ICIS..... Integrated Compliance Information System
PADS..... PCB Activity Database System
MLTS..... Material Licensing Tracking System
RADINFO..... Radiation Information Database
FINDS..... Facility Index System/Facility Registry System
RAATS..... RCRA Administrative Action Tracking System
UIC..... Underground Injection Control Wells
DRYCLEANERS..... Registered Drycleaners
NPDES..... State Pollutant Discharge Elimination System
AIRS..... Air Emissions Data
E DESIGNATION..... E DESIGNATION SITE LISTING
INDIAN RESERV..... Indian Reservations
SCRD DRYCLEANERS..... State Coalition for Remediation of Drycleaners Listing
PCB TRANSFORMER..... PCB Transformer Registration Database
COAL ASH EPA..... Coal Combustion Residues Surface Impoundments List
COAL ASH..... Coal Ash Disposal Site Listing
FINANCIAL ASSURANCE..... Financial Assurance Information Listing
COAL ASH DOE..... Sleam-Electric Plan Operation Data

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

Federal RCRA CORRACTS facilities list

CORRACTS: CORRACTS is a list of handlers with RCRA Corrective Action Activity. This report shows which nationally-defined corrective action core events have occurred for every handler that has had corrective action activity.

A review of the CORRACTS list, as provided by EDR, and dated 03/09/2011 has revealed that there is 1 CORRACTS site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
ORBAN	*324 INDIAN CHURCH RD.*	*SSE 1/2 - 1 (0.611 mi.)*	*K54*	*150*

EXECUTIVE SUMMARY

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 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 05/24/2011 has revealed that there are 2 SHWS sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
BESTWAY CLEANERS	***2075 SENECA STREET***	***SSW 1/4 - 1/2 (0.474 mi.)***	***J49***	***135***
Class Code: Significant threat to the public health or environment - action required.				
MADISON WIRE COMPANY (ORBAN IN	324 INDIAN CHURCH ROAD	SSE 1/2 - 1 (0.612 mi.)	K55	163

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 04/14/2011 has revealed that there is 1 SWF/LF site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
WEST SENECA COMPOSTING FACILIT	500 MINERAL SPRINGS ROA	E 1/4 - 1/2 (0.335 mi.)	G29	91

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 05/24/2011 has revealed that there are 4 LTANKS sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SCHOOL 27 HILLARY PARK Date Closed: 10/18/2004	73 PAWNEE PARKWAY	SSW 1/8 - 1/4 (0.142 mi.)	7	25
PETRO SALES & SERVICE Date Closed: 2/28/1989	***1770 SENECA STREET***	***WSW 1/4 - 1/2 (0.449 mi.)***	***I43***	***121***
FORMER PETRO-USA/GETTY ST Date Closed: 10/13/2000	***1770 SENECA STREET***	***WSW 1/4 - 1/2 (0.449 mi.)***	***I45***	***126***
ENGINE #25 & PRECINCT #9 Date Closed: 1/21/2000	***1729 SENECA STREET***	***W 1/4 - 1/2 (0.499 mi.)***	***53***	***146***

HIST LTANKS: 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.

A review of the HIST LTANKS list, as provided by EDR, and dated 01/01/2002 has revealed that there are 3 HIST LTANKS sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
PETRO SALES & SERVICE Date Closed: 02/28/89	*1770 SENECA STREET*	*WSW 1/4 - 1/2 (0.449 mi.)*	*I43*	*121*
FORMER PETRO-USA/GETTY ST Date Closed: 10/13/00	*1770 SENECA STREET*	*WSW 1/4 - 1/2 (0.449 mi.)*	*I45*	*126*
ENGINE #25 & PRECINCT #9 Date Closed: 01/21/00	*1729 SENECA STREET*	*W 1/4 - 1/2 (0.499 mi.)*	*53*	*146*

State and tribal registered storage tank lists

TANKS: 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.

A review of the TANKS list, as provided by EDR, and dated 04/05/2011 has revealed that there is 1 TANKS site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MINERAL SPRINGS WORKS	365 MINERAL SPRINGS RD	E 1/8 - 1/4 (0.188 mi.)	B15	65

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, and dated 04/05/2011 has revealed that there is 1 UST site within approximately 0.125 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
REID PETROLEUM	*330 MINERAL SPRINGS*	*SSE 0 - 1/8 (0.081 mi.)*	*A2*	*10*

State and tribal voluntary cleanup sites

VCP: Voluntary Cleanup Agreements. The voluntary remedial program uses private monies to get contaminated sites remediated to levels allowing for the sites' productive use. The program covers virtually any kind of site and contamination.

A review of the VCP list, as provided by EDR, and dated 05/24/2011 has revealed that there is 1 VCP site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MINERAL SPRINGS WORKS	*365 MINERAL SPRINGS ROA*	*E 1/8 - 1/4 (0.188 mi.)*	*B10*	*45*

EXECUTIVE SUMMARY

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Registered Storage Tanks

HIST 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 HIST UST list, as provided by EDR, and dated 01/01/2002 has revealed that there is 1 HIST UST site within approximately 0.125 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
REID PETROLEUM	***330 MINERAL SPRINGS***	***SSE 0 - 1/8 (0.081 mi.)***	***A2***	***10***

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 05/24/2011 has revealed that there are 40 NY Spills sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
FORMER GAS STATION Date Closed: 10/31/2001	***330 MINERAL SPRINGS ROA***	***S 0 - 1/8 (0.081 mi.)***	***A3***	***15***
NATIONAL FUEL GAS Date Closed: 7/5/1991	***265 MINERAL SPRINGS ROA***	***SE 0 - 1/8 (0.100 mi.)***	***4***	***18***
REFUSE TRUCK SPILL Date Closed: 7/31/2003	24 FRANK AVENUE	S 1/8 - 1/4 (0.130 mi.)	6	23
NFG SERVICE CTR Date Closed: 5/29/2003 Date Closed: 11/25/1997 **Additional key fields are available in the Map Findings section*	***365 MINERAL SPRINGS ROA***	***ESE 1/8 - 1/4 (0.148 mi.)***	***B8***	***26***
SUPERIOR MACHINE PRODUCTS Date Closed: 9/13/1989	***400 MINERALS SPRING ROA***	***ESE 1/8 - 1/4 (0.174 mi.)***	***B9***	***42***
Not reported Date Closed: 1/23/1998	***114 CABLE ST***	***NNW 1/8 - 1/4 (0.204 mi.)***	***C16***	***65***
LEAKING TRANSFORMER Date Closed: 9/16/2003	193 FENTON ST	N 1/8 - 1/4 (0.218 mi.)	D17	68
LEAKING AUTO Date Closed: 8/14/1997	***114 CABLE STREET***	***NNW 1/8 - 1/4 (0.228 mi.)***	***C19***	***72***
POLE # 200 Date Closed: 9/13/2005	200 FENTON AVE	N 1/8 - 1/4 (0.231 mi.)	D20	74
IN YARD Date Closed: 4/13/2010	123 BARNARD	NNW 1/4 - 1/2 (0.266 mi.)	E21	76
ON ROADWAY Date Closed: 2/9/2010	127 CASIMIR ST	N 1/4 - 1/2 (0.281 mi.)	E22	77

EXECUTIVE SUMMARY

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
TRANSMISSION FLUID LEAK Date Closed: 5/25/1994	***60 NORTH RYAN STREET***	***SSW 1/4 - 1/2 (0.298 mi.)***	***F23***	***79***
NEIGHBOR DUMPING Date Closed: 5/2/1990	***PIERCE & CASIMIR***	***NNE 1/4 - 1/2 (0.302 mi.)***	***24***	***82***
SCOTT RESIDENCE Date Closed: 7/2/2009	169 NORMAN AVENUE	S 1/4 - 1/2 (0.307 mi.)	25	84
POCHRON HOUSE Date Closed: 9/9/2004	255 HOLLY STREET	N 1/4 - 1/2 (0.321 mi.)	26	86
LEAKING PRIVATE AUTO Date Closed: 6/9/1998	***88 WEYAND AVENUE***	***SSW 1/4 - 1/2 (0.331 mi.)***	***27***	***87***
IN DRIVEWAY & GROUND Date Closed: 10/13/2009	63 RYAN ST.	SSW 1/4 - 1/2 (0.334 mi.)	F28	90
TRANSFER STATION Date Closed: 11/3/2006	500 MINERAL SPRINGS ROA	E 1/4 - 1/2 (0.337 mi.)	G30	92
GOVOLA DUMPING Date Closed: 3/11/1994	***12 ROANOKE PARKWAY***	***SW 1/4 - 1/2 (0.358 mi.)***	***31***	***93***
ANTIFREEZE IN ROAD Date Closed: 8/22/2000	***70 JUNIATA PLACE***	***WSW 1/4 - 1/2 (0.370 mi.)***	***32***	***96***
OIL DUMPING AT DUNN HOUSE Date Closed: 9/17/1997	***102 WEISS AVENUE***	***NNW 1/4 - 1/2 (0.375 mi.)***	***33***	***99***
POLE 37R Date Closed: 9/11/2002	37 HAYDEN ST	SSW 1/4 - 1/2 (0.376 mi.)	34	101
WASTE OIL DUMPING Date Closed: 9/23/1998	***57 FREDRO STREET***	***NNW 1/4 - 1/2 (0.377 mi.)***	***H35***	***103***
DUMPING BEHIND SHED Date Closed: 9/8/1998	***57 FREDRO STREET***	***NNW 1/4 - 1/2 (0.377 mi.)***	***H36***	***105***
OIL ON STREET Date Closed: 8/18/1994	***191 WEIMAR STREET***	***NNW 1/4 - 1/2 (0.386 mi.)***	***37***	***108***
RED MATERIAL IN CREEK Date Closed: 7/23/1998	***323 CASIMER STREET***	***NE 1/4 - 1/2 (0.388 mi.)***	***38***	***110***
107 ELECTRIC Date Closed: 4/25/1995	***107 ELECTRIC AVENUE***	***NNE 1/4 - 1/2 (0.425 mi.)***	***39***	***113***
GETTY #58856 Date Closed: 4/10/2007	1770 SENECA STREET	WSW 1/4 - 1/2 (0.449 mi.)	I41	118
58856 GETTY Date Closed: 4/10/2007	1770 SENECA STREET	WSW 1/4 - 1/2 (0.449 mi.)	I42	119
PETRO STATION Date Closed: 8/16/1990	***1770 SENECA STREET***	***WSW 1/4 - 1/2 (0.449 mi.)***	***I44***	***123***
NIAGARA MOHAWK TRANSFORME Date Closed: 3/24/2000	***SENECA STREET AT AVONDA***	***WSW 1/4 - 1/2 (0.457 mi.)***	***I46***	***128***
BEST WAY CLEANER Date Closed: 7/27/1993	***SENECA & YALE***	***SSW 1/4 - 1/2 (0.471 mi.)***	***J47***	***131***
PIPELINE Date Closed: 10/21/2003	610 MINERAL SPRINGS	E 1/4 - 1/2 (0.473 mi.)	48	134
BESTWAY CLEANERS Date Closed: 10/7/1986	***2075 SENECA STREET***	***SSW 1/4 - 1/2 (0.474 mi.)***	***J49***	***135***

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
LEO'S PIZZARIA Date Closed: 3/12/2002	2077 SENECA ST	SSW 1/4 - 1/2 (0.475 mi.)	J50	140
SMALL MIRACLES CHILD CARE Date Closed: 2/8/1994	*160 WEISS STREET*	*NNW 1/4 - 1/2 (0.483 mi.)*	*51*	*141*
HECTOR'S HARDWARE Date Closed: 9/30/1996	*1955 CLINTON STREET*	*N 1/4 - 1/2 (0.495 mi.)*	*52*	*144*

Lower Elevation	Address	Direction / Distance	Map ID	Page
SHEEN IN BUFFALO RIVER Date Closed: 9/18/1995	*145 POMONA STREET - RIV*	*WSW 1/8 - 1/4 (0.130 mi.)*	*5*	*21*
CONTAINER IN VACANT FIELD Date Closed: 5/24/1996	*46 PIERCE STREET*	*NNE 1/8 - 1/4 (0.221 mi.)*	*18*	*69*
AVONDALE PLACE Date Closed: 9/2/1986	*33 AVONDALE PLACE*	*W 1/4 - 1/2 (0.444 mi.)*	*40*	*115*

NY Hist Spills: 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.

A review of the NY Hist Spills list, as provided by EDR, and dated 01/01/2002 has revealed that there are 26 NY Hist Spills sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
FORMER GAS STATION	*330 MINERAL SPRINGS ROA*	*S 0 - 1/8 (0.081 mi.)*	*A3*	*15*
NATIONAL FUEL GAS	*265 MINERAL SPRINGS ROA*	*SE 0 - 1/8 (0.100 mi.)*	*4*	*18*
NFG SERVICE CTR	*365 MINERAL SPRINGS ROA*	*ESE 1/8 - 1/4 (0.148 mi.)*	*B8*	*26*
SUPERIOR MACHINE PRODUCTS	*400 MINERALS SPRING ROA*	*ESE 1/8 - 1/4 (0.174 mi.)*	*B9*	*42*
Not reported	*114 CABLE ST*	*NNW 1/8 - 1/4 (0.204 mi.)*	*C16*	*65*
LEAKING AUTO	*114 CABLE STREET*	*NNW 1/8 - 1/4 (0.228 mi.)*	*C19*	*72*
TRANSMISSION FLUID LEAK	*60 NORTH RYAN STREET*	*SSW 1/4 - 1/2 (0.298 mi.)*	*F23*	*79*
NEIGHBOR DUMPING	*PIERCE & CASIMIR*	*NNE 1/4 - 1/2 (0.302 mi.)*	*24*	*82*
LEAKING PRIVATE AUTO	*88 WEYAND AVENUE*	*SSW 1/4 - 1/2 (0.331 mi.)*	*27*	*87*
GOVOLA DUMPING	*12 ROANOKE PARKWAY*	*SW 1/4 - 1/2 (0.358 mi.)*	*31*	*93*
ANTIFREEZE IN ROAD	*70 JUNIATA PLACE*	*WSW 1/4 - 1/2 (0.370 mi.)*	*32*	*96*
OIL DUMPING AT DUNN HOUSE	*102 WEISS AVENUE*	*NNW 1/4 - 1/2 (0.375 mi.)*	*33*	*99*
WASTE OIL DUMPING	*57 FREDRO STREET*	*NNW 1/4 - 1/2 (0.377 mi.)*	*H35*	*103*
DUMPING BEHIND SHED	*57 FREDRO STREET*	*NNW 1/4 - 1/2 (0.377 mi.)*	*H36*	*105*
OIL ON STREET	*191 WEIMAR STREET*	*NNW 1/4 - 1/2 (0.386 mi.)*	*37*	*108*
RED MATERIAL IN CREEK	*323 CASIMER STREET*	*NE 1/4 - 1/2 (0.388 mi.)*	*38*	*110*
107 ELECTRIC	*107 ELECTRIC AVENUE*	*NNE 1/4 - 1/2 (0.425 mi.)*	*39*	*113*
PETRO STATION	*1770 SENECA STREET*	*WSW 1/4 - 1/2 (0.449 mi.)*	*I44*	*123*
NIAGARA MOHAWK TRANSFORME	*SENECA STREET AT AVONDA*	*WSW 1/4 - 1/2 (0.457 mi.)*	*I46*	*128*
BEST WAY CLEANER	*SENECA & YALE*	*SSW 1/4 - 1/2 (0.471 mi.)*	*J47*	*131*
BESTWAY CLEANERS	*2075 SENECA STREET*	*SSW 1/4 - 1/2 (0.474 mi.)*	*J49*	*135*
SMALL MIRACLES CHILD CARE	*160 WEISS STREET*	*NNW 1/4 - 1/2 (0.483 mi.)*	*51*	*141*
HECTOR'S HARDWARE	*1955 CLINTON STREET*	*N 1/4 - 1/2 (0.495 mi.)*	*52*	*144*

Lower Elevation	Address	Direction / Distance	Map ID	Page
SHEEN IN BUFFALO RIVER	*145 POMONA STREET - RIV*	*WSW 1/8 - 1/4 (0.130 mi.)*	*5*	*21*

Lower Elevation	Address	Direction / Distance	Map ID	Page
CONTAINER IN VACANT FIELD	*46 PIERCE STREET*	*NNE 1/8 - 1/4 (0.221 mi.)*	*18*	*69*
AVONDALE PLACE	*33 AVONDALE PLACE*	*W 1/4 - 1/2 (0.444 mi.)*	*40*	*115*

Other Ascertainable Records

RCRA-NonGen: 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.

A review of the RCRA-NonGen list, as provided by EDR, and dated 03/11/2011 has revealed that there is 1 RCRA-NonGen site within approximately 0.125 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
SOUTHSIDE COLLISION	*17 S OGDEN ST*	*S 0 - 1/8 (0.052 mi.)*	*A1*	*7*

HSWDS: 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 latest version of the study 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 in the registry. So overtime they will be added to the registry or not.

A review of the HSWDS list, as provided by EDR, and dated 01/01/2003 has revealed that there is 1 HSWDS site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NAT FUEL, MINERAL SPRINGS WORK	365 MINERAL SPRINGS ROA	E 1/8 - 1/4 (0.188 mi.)	B13	62

MANIFEST: Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

A review of the MANIFEST list, as provided by EDR, and dated 12/31/2010 has revealed that there are 2 MANIFEST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NATIONAL FUEL GAS - MINERAL SP	*365 MINERAL SPRINGS RD*	*E 1/8 - 1/4 (0.188 mi.)*	*B11*	*49*
Lower Elevation	**Address**	**Direction / Distance**	**Map ID**	**Page**
SOUTHSIDE COLLISION	*17 S OGDEN ST*	*S 0 - 1/8 (0.052 mi.)*	*A1*	*7*

EXECUTIVE SUMMARY

EDR PROPRIETARY RECORDS

EDR Proprietary Records

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.

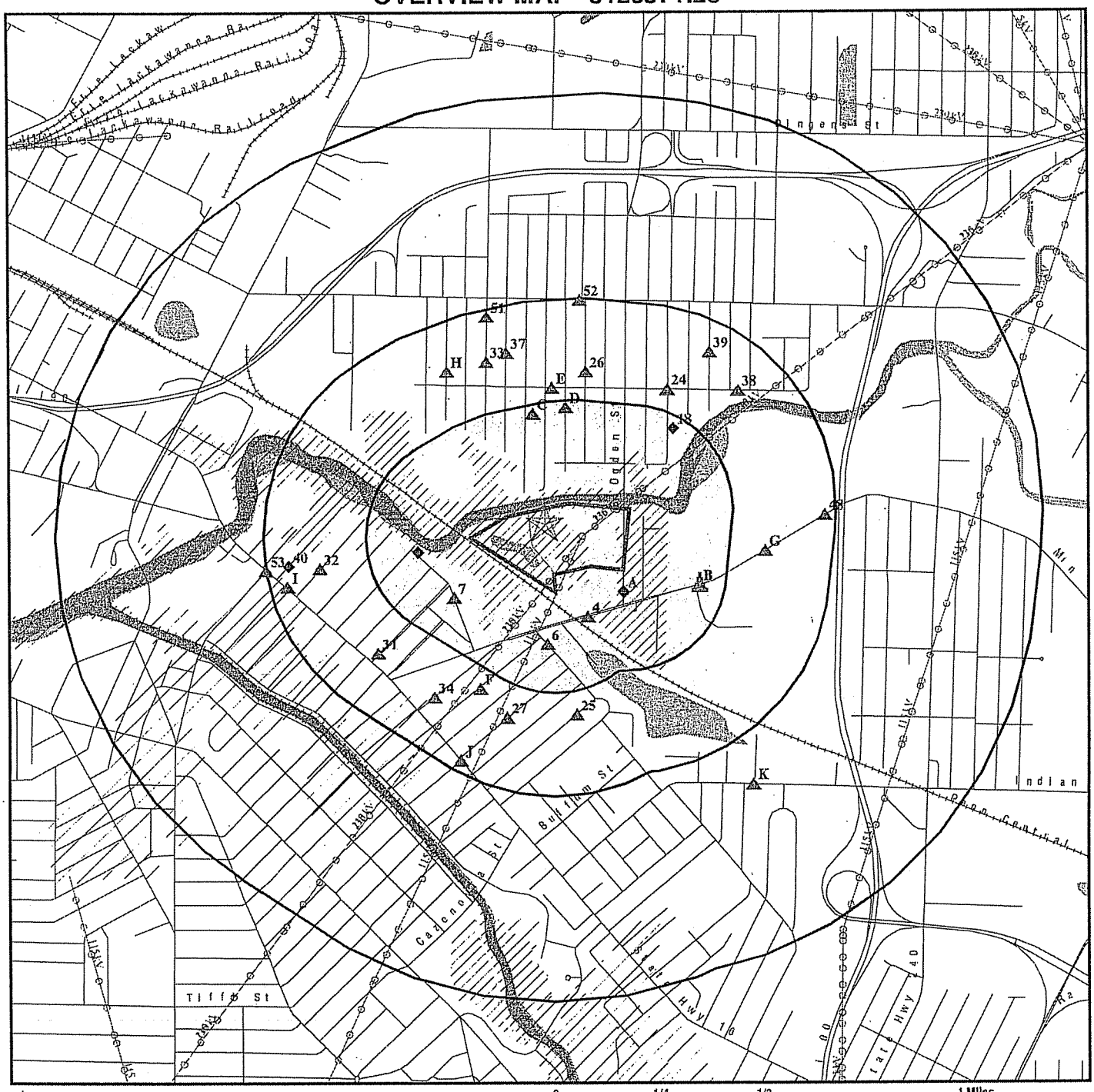
A review of the Manufactured Gas Plants list, as provided by EDR, has revealed that there is 1 Manufactured Gas Plants site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MINERAL SPRINGS WORKS	365 MINERAL SPRINGS ROA	E 1/8 - 1/4 (0.188 mi.)	B12	62

Due to poor or inadequate address information, the following sites were not mapped. Count: 39 records.

Site Name	Database(s)
HANNA FURNACE (SUBPARCEL 3)(AKA UN	ERP
NYS THRUWAY AUTH	RCRA-NonGen, FINDS, MANIFEST
NYS DOT	RCRA-NonGen, FINDS, MANIFEST
NYSDOT	RCRA-NonGen, FINDS, MANIFEST
NYSDOT BIN 1047690	RCRA-NonGen, FINDS, MANIFEST
BRISTOL STREET	SHWS
BROADWAY GARAGE	SWF/LF
CTS CRUSHING & RECYCLING	SWF/LF
UNKNOWN TRUCK	LTANKS, HIST LTANKS
NYSDOT BIN 1042640	RCRA-LQG
NYSDOT BIN 1022860	RCRA-NonGen, FINDS
NYSDOT D256524 SITE 4	RCRA-NonGen, FINDS
BRENTON - BLUE LIQUID	NY Spills, NY Hist Spills
TAR ON ROAD	NY Spills, NY Hist Spills
NSYDOT PUMPHOUSE RT. 33	NY Spills, NY Hist Spills
MOTOR OIL ON KENSINGTON	NY Spills, NY Hist Spills
OIL ON ROUTE 33 WESTBOUND	NY Spills, NY Hist Spills
OIL ON ROAD	NY Spills
FICEL TRUCKING	NY Spills, NY Hist Spills
CARGILL DRUMS	NY Spills, NY Hist Spills
FATHER BAKER BRIDGE	NY Spills
UNDER SKYWAY	NY Spills
WWTP SLUDGE	NY Spills
BIG LOTS PLAZA	NY Spills
SCAJAQUADA EXPRY. OIL	NY Spills, NY Hist Spills
STEEL FIELDS	NY Spills
ON BROADWAY (ROADWAY)	NY Spills
WHITE LIQUID	NY Spills
BUFFALO STATE COLLEGE	NY Spills, NY Hist Spills
CITY OF BUFFALO	NY Spills, NY Hist Spills
FIRE ENGINE #13 FIRE DEPT	NY Spills, NY Hist Spills
WENDYS	NY Spills
BUFFALO RIVER	NY Spills, NY Hist Spills
EAST SIDE TRANSFER STN.	NY Spills, NY Hist Spills
ZAPPIA BERM	NY Spills, NY Hist Spills
CID REFUSE SERVICE	NY Spills, NY Hist Spills
CID	NY Spills, NY Hist Spills
BUFFALO RIVER	NY Spills, NY Hist Spills
BUFFALO TRANSFER STATION	NY Spills

OVERVIEW MAP - 3128371.2s



SITE NAME: Fallow Land ADDRESS: 154 S Ogden St Buffalo NY 14210 LAT/LONG: 42.8640 / 78.8060	CLIENT: LCS, Inc CONTACT: Stephanie Laplaca INQUIRY #: 3128371.2s DATE: July 20, 2011 4:42 pm

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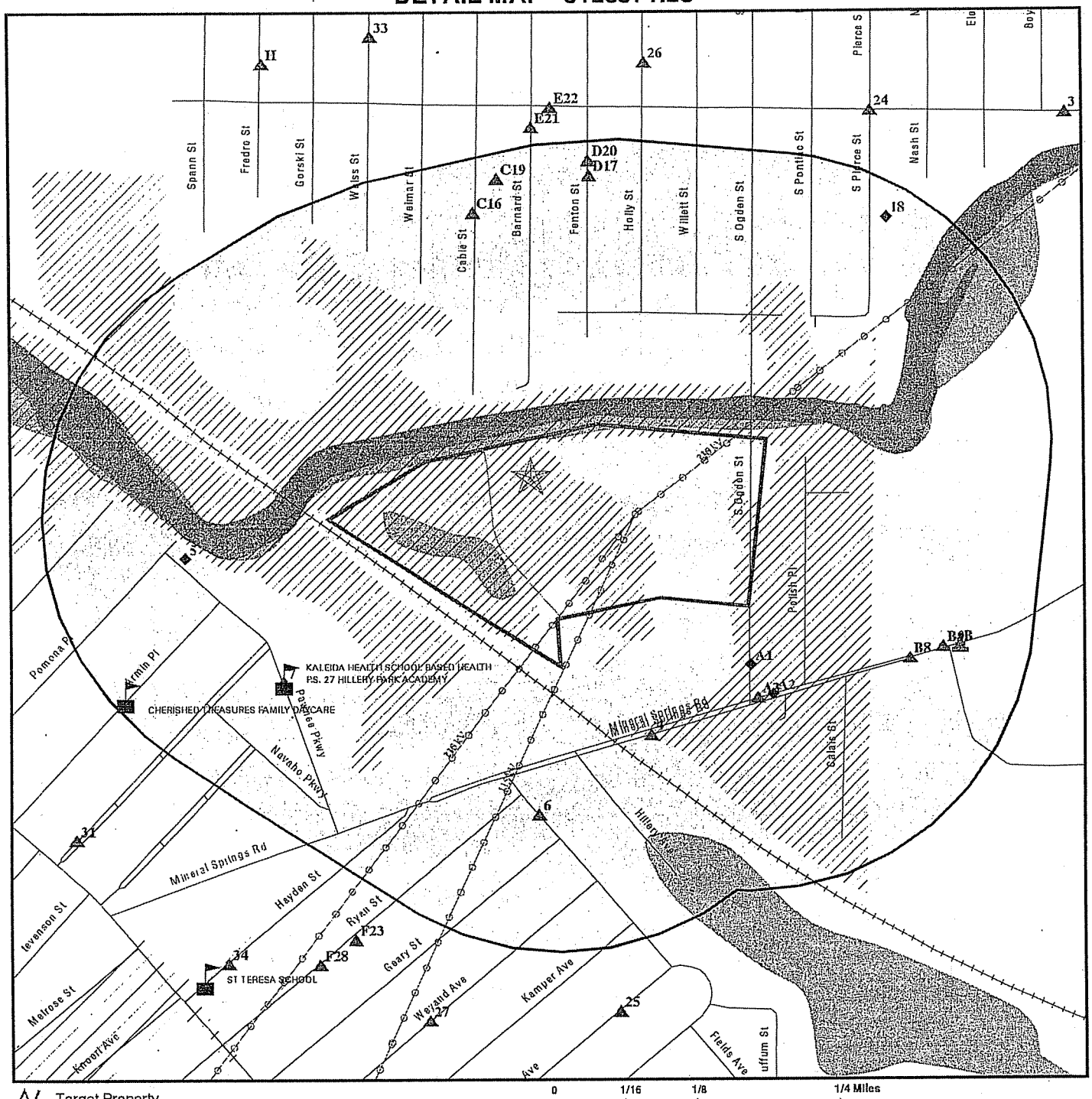
DETAIL MAP - 3128371.2s



- 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
- Power transmission lines
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands

SITE NAME: Fallow Land ADDRESS: 154 S Ogden St Buffalo NY 14210 LAT/LONG: 42.8640 / 78.8060	CLIENT: LCS, Inc CONTACT: Stephanie Laplaca INQUIRY #: 3128371.2s DATE: July 20, 2011 4:43 pm

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MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
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
Federal Delisted NPL site list								
Delisted NPL		1.000	0	0	0	0	NR	0
Federal CERCLIS list								
CERCLIS		0.500	0	0	0	NR	NR	0
FEDERAL FACILITY		1.000	0	0	0	0	NR	0
Federal CERCLIS NFRAP site List								
CERC-NFRAP		0.500	0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS		1.000	0	0	0	1	NR	1
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF		1.000	0	0	0	0	NR	0
Federal RCRA generators list								
RCRA-LQG		0.125	0	NR	NR	NR	NR	0
RCRA-SQG		0.125	0	NR	NR	NR	NR	0
RCRA-CESQG		0.125	0	NR	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
US ENG CONTROLS		TP	NR	NR	NR	NR	NR	0
US INST CONTROL		TP	NR	NR	NR	NR	NR	0
Federal ERNS list								
ERNS		TP	NR	NR	NR	NR	NR	0
State- and tribal - equivalent CERCLIS								
SHWS		1.000	0	0	1	1	NR	2
VAPOR REOPENED		1.000	0	0	0	0	NR	0
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF		0.500	0	0	1	NR	NR	1
State and tribal leaking storage tank lists								
LTANKS		0.500	0	1	3	NR	NR	4
HIST LTANKS		0.500	0	0	3	NR	NR	3
INDIAN LUST		0.500	0	0	0	NR	NR	0
State and tribal registered storage tank lists								
TANKS		0.250	0	1	NR	NR	NR	1

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
UST		0.125	1	NR	NR	NR	NR	1
CBS UST		0.125	0	NR	NR	NR	NR	0
MOSF UST		0.125	0	NR	NR	NR	NR	0
AST		0.125	0	NR	NR	NR	NR	0
CBS AST		0.125	0	NR	NR	NR	NR	0
MOSF AST		0.125	0	NR	NR	NR	NR	0
MOSF		0.500	0	0	0	NR	NR	0
CBS		0.250	0	0	NR	NR	NR	0
INDIAN UST		0.125	0	NR	NR	NR	NR	0
FEMA UST		0.250	0	0	NR	NR	NR	0
State and tribal institutional control / engineering control registries								
ENG CONTROLS	TP		NR	NR	NR	NR	NR	0
INST CONTROL	TP		NR	NR	NR	NR	NR	0
RES DECL		0.180	0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
INDIAN VCP		0.500	0	0	0	NR	NR	0
VCP		0.500	0	1	0	NR	NR	1
State and tribal Brownfields sites								
ERP		0.500	0	0	0	NR	NR	0
BROWNFIELDS		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								
ODI	TP		NR	NR	NR	NR	NR	0
DEBRIS REGION 9		0.500	0	0	0	NR	NR	0
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
Local Lists of Hazardous waste / Contaminated Sites								
US CDL	TP		NR	NR	NR	NR	NR	0
DEL SHWS		1.000	0	0	0	0	NR	0
US HIST CDL	TP		NR	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
HIST UST		0.125	1	NR	NR	NR	NR	1
HIST AST		0.125	0	NR	NR	NR	NR	0
Local Land Records								
LIENS 2	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LUCIS		0.500	0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS		TP	NR	NR	NR	NR	NR	0
NY Spills		0.500	2	9	29	NR	NR	40
NY Hist Spills		0.500	2	6	18	NR	NR	26
Other Ascertainable Records								
RCRA-NonGen		0.125	1	NR	NR	NR	NR	1
DOT OPS		TP	NR	NR	NR	NR	NR	0
DOD		TP	NR	NR	NR	NR	NR	0
FUDS		1.000	0	0	0	0	NR	0
CONSENT		1.000	0	0	0	0	NR	0
ROD		1.000	0	0	0	0	NR	0
UMTRA		0.500	0	0	0	NR	NR	0
MINES		0.250	0	0	NR	NR	NR	0
TRIS		TP	NR	NR	NR	NR	NR	0
TSCA		TP	NR	NR	NR	NR	NR	0
FTTS		TP	NR	NR	NR	NR	NR	0
HIST FTTS		TP	NR	NR	NR	NR	NR	0
SSTS		TP	NR	NR	NR	NR	NR	0
ICIS		TP	NR	NR	NR	NR	NR	0
PADS		TP	NR	NR	NR	NR	NR	0
MLTS		TP	NR	NR	NR	NR	NR	0
RADINFO		TP	NR	NR	NR	NR	NR	0
FINDS		TP	NR	NR	NR	NR	NR	0
RAATS		TP	NR	NR	NR	NR	NR	0
HSWDS		0.500	0	1	0	NR	NR	1
UIC		TP	NR	NR	NR	NR	NR	0
MANIFEST		0.250	1	2	NR	NR	NR	3
DRYCLEANERS		0.125	0	NR	NR	NR	NR	0
NPDES		TP	NR	NR	NR	NR	NR	0
AIRS		TP	NR	NR	NR	NR	NR	0
E DESIGNATION		TP	NR	NR	NR	NR	NR	0
INDIAN RESERV		1.000	0	0	0	0	NR	0
SCRD DRYCLEANERS		0.500	0	0	0	NR	NR	0
PCB TRANSFORMER		TP	NR	NR	NR	NR	NR	0
COAL ASH EPA		0.500	0	0	0	NR	NR	0
COAL ASH		0.500	0	0	0	NR	NR	0
FINANCIAL ASSURANCE		TP	NR	NR	NR	NR	NR	0
COAL ASH DOE		TP	NR	NR	NR	NR	NR	0
EDR PROPRIETARY RECORDS								
EDR Proprietary Records								
Manufactured Gas Plants		1.000	0	1	0	0	NR	1

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1 **SOUTHSIDE COLLISION** **RCRA-NonGen** **1000410101**
South **17 S OGDEN ST** **FINDS** **NYD063955280**
< 1/8 **BUFFALO, NY 14210** **MANIFEST**
0.052 mi.
273 ft. **Site 1 of 3 in cluster A**

Relative:
Lower

Actual:
580 ft.

RCRA-NonGen:

Date form received by agency:	01/01/2007
Facility name:	SOUTHSIDE COLLISION
Facility address:	17 S OGDEN ST BUFFALO, NY 14210
EPA ID:	NYD063955280
Mailing address:	S OGDEN ST BUFFALO, NY 14210
Contact:	Not reported
Contact address:	S OGDEN ST BUFFALO, NY 14210
Contact country:	US
Contact telephone:	Not reported
Contact email:	Not reported
EPA Region:	02
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	PAUL PELUSSO
Owner/operator address:	NOT REQUIRED NOT REQUIRED, WY 99999
Owner/operator country:	US
Owner/operator telephone:	(212) 555-1212
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	PAUL PELUSSO
Owner/operator address:	NOT REQUIRED NOT REQUIRED, WY 99999
Owner/operator country:	US
Owner/operator telephone:	(212) 555-1212
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No

SOUTHSIDE COLLISION (Continued) **1000410101**

Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 01/01/2006
Facility name: SOUTHSIDE COLLISION
Classification: Not a generator, verified

Date form received by agency: 03/28/1995
Facility name: SOUTHSIDE COLLISION
Classification: Not a generator, verified

Date form received by agency: 06/09/1986
Facility name: SOUTHSIDE COLLISION
Classification: Small Quantity Generator

Violation Status: No violations found

FINDS:

Registry ID: 110004363475

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

NY MANIFEST:
EPA ID: NYD063955280
Country: USA
Mailing Name: SOUTHSIDE COLLISION
Mailing Contact: SOUTHSIDE COLLISION
Mailing Address: 17 SOUTH OGDEN STREET
Mailing Address 2: Not reported
Mailing City: BUFFALO
Mailing State: NY
Mailing Zip: 14210
Mailing Zip4: Not reported
Mailing Country: USA
Mailing Phone: 716-824-8349

Document ID: NYA3458496
Manifest Status: Completed copy
Trans1 State ID: NYSDECVA0
Trans2 State ID: T571868(V
Generator Ship Date: 870415
Trans1 Recv Date: 870415
Trans2 Recv Date: Not reported
TSD Site Recv Date: 870416
Part A Recv Date: 870430
Part B Recv Date: 870427

SOUTHSIDE COLLISION (Continued) **1000410101**

Generator EPA ID:	NYD063955280
Trans1 EPA ID:	VAD980831580
Trans2 EPA ID:	Not reported
TSDF ID:	NYD043815703
Waste Code:	F003 - UNKNOWN
Quantity:	00052
Units:	G - Gallons (liquids only)* (8.3 pounds)
Number of Containers:	001
Container Type:	TT - Cargo tank, tank trucks
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	086
Year:	87

Document ID:	NYA5162085
Manifest Status:	Completed copy
Trans1 State ID:	P93-064
Trans2 State ID:	Not reported
Generator Ship Date:	880516
Trans1 Recv Date:	880516
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	880516
Part A Recv Date:	880601
Part B Recv Date:	880523
Generator EPA ID:	NYD063955280
Trans1 EPA ID:	VAD980831580
Trans2 EPA ID:	Not reported
TSDF ID:	NYD043815703
Waste Code:	F003 - UNKNOWN
Quantity:	00055
Units:	G - Gallons (liquids only)* (8.3 pounds)
Number of Containers:	001
Container Type:	TT - Cargo tank, tank trucks
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	100
Year:	88

Document ID:	NYA8542728
Manifest Status:	Completed copy
Trans1 State ID:	P78-064IL
Trans2 State ID:	Not reported
Generator Ship Date:	890517
Trans1 Recv Date:	890517
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	890519
Part A Recv Date:	890525
Part B Recv Date:	890530
Generator EPA ID:	NYD063955280
Trans1 EPA ID:	ILD099202681
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836679
Waste Code:	F005 - UNKNOWN
Quantity:	00115
Units:	G - Gallons (liquids only)* (8.3 pounds)
Number of Containers:	001
Container Type:	TT - Cargo tank, tank trucks

SOUTHSIDE COLLISION (Continued) **1000410101**

Handling Method: B Incineration, heat recovery, burning.
Specific Gravity: 086
Year: 89

A2 **REID PETROLEUM** **UST U003318436**
SSE **330 MINERAL SPRINGS** **HIST UST N/A**
< 1/8 **BUFFALO, NY 14210**
0.081 mi.
428 ft. **Site 2 of 3 in cluster A**

Relative:
Lower

Actual:
581 ft.

UST:
Facility Id: 9-487422
Region: STATE
DEC Region: 9
Site Status: Unregulated
Program Type: PBS
Expiration Date: N/A
UTM X: 189401.96479999999
UTM Y: 4752424.3955800002

Affiliation Records:
Site Id: 54579
Affiliation Type: Owner
Company Name: REID PETROLEUM
Contact Type: Not reported
Contact Name: Not reported
Address1: 100 W. GENESEE ST.
Address2: Not reported
City: LOCKPORT
State: NY
Zip Code: 14094
Country Code: 001
Phone: (716) 434-2885
Phone Ext: Not reported
Email: Not reported
Fax Number: Not reported
Modified By: TRANSLAT
Date Last Modified: 3/4/2004

Site Id: 54579
Affiliation Type: On-Site Operator
Company Name: REID PETROLEUM
Contact Type: Not reported
Contact Name: REID PETROLEUM
Address1: Not reported
Address2: Not reported
City: Not reported
State: NN
Zip Code: Not reported
Country Code: 999
Phone: (800) 348-8400
Phone Ext: Not reported
Email: Not reported
Fax Number: Not reported
Modified By: pfkutlin
Date Last Modified: 6/21/2004

Site Id: 54579

REID PETROLEUM (Continued) **U003318436**

Affiliation Type:	Mail Contact
Company Name:	REID PETROLEUM
Contact Type:	Not reported
Contact Name:	DIANNE GROSSLINGER
Address1:	100 W. GENESEE ST.
Address2:	PO BOX 987
City:	LOCKPORT
State:	NY
Zip Code:	14095
Country Code:	001
Phone:	(716) 434-2885
Phone Ext:	Not reported
Email:	Not reported
Fax Number:	Not reported
Modified By:	TRANSLAT
Date Last Modified:	3/4/2004

Site Id:	54579
Affiliation Type:	Emergency Contact
Company Name:	REID PETROLEUM
Contact Type:	Not reported
Contact Name:	CHRISTOPHER WILSON
Address1:	Not reported
Address2:	Not reported
City:	Not reported
State:	NN
Zip Code:	Not reported
Country Code:	999
Phone:	(800) 348-8400
Phone Ext:	Not reported
Email:	Not reported
Fax Number:	Not reported
Modified By:	aeskalsk
Date Last Modified:	6/24/2009

Equipment Records:

G00 - Tank Secondary Containment - None
J02 - Dispenser - Suction
A03 - Tank Internal Protection - Fiberglass Liner (FRP)
F00 - Pipe External Protection - None
D02 - Pipe Type - Galvanized Steel
D02 - Pipe Type - Galvanized Steel
J02 - Dispenser - Suction
F00 - Pipe External Protection - None
A03 - Tank Internal Protection - Fiberglass Liner (FRP)
G00 - Tank Secondary Containment - None
C02 - Pipe Location - Underground/On-ground
C02 - Pipe Location - Underground/On-ground
I00 - Overfill - None
B04 - Tank External Protection - Fiberglass
H05 - Tank Leak Detection - In-Tank System (ATG)
A03 - Tank Internal Protection - Fiberglass Liner (FRP)
C02 - Pipe Location - Underground/On-ground
B04 - Tank External Protection - Fiberglass
G00 - Tank Secondary Containment - None
D02 - Pipe Type - Galvanized Steel
J02 - Dispenser - Suction

REID PETROLEUM (Continued) **U003318436**

F00 - Pipe External Protection - None
H05 - Tank Leak Detection - In-Tank System (ATG)
B04 - Tank External Protection - Fiberglass
I00 - Overfill - None
H05 - Tank Leak Detection - In-Tank System (ATG)
I00 - Overfill - None

Tank Info:

Site ID:	54579
Tank Number:	1
Tank ID:	168284
Tank Status:	Closed - Removed
Tank Model:	Not reported
Pipe Model:	Not reported
Install Date:	6/1/1984
Capacity Gallons:	8000
Tightness Test Method:	NN
Next Test Date:	Not reported
Date Tank Closed:	3/12/2001
Tank Location:	5
Tank Type:	Equivalent technology
Date Test:	Not reported
Register:	True
Modified By:	TRANSLAT
Last Modified:	3/4/2004
Site ID:	54579
Tank Number:	2
Tank ID:	168285
Tank Status:	Closed - Removed
Tank Model:	Not reported
Pipe Model:	Not reported
Install Date:	6/1/1984
Capacity Gallons:	10000
Tightness Test Method:	NN
Next Test Date:	Not reported
Date Tank Closed:	3/12/2001
Tank Location:	5
Tank Type:	Equivalent technology
Date Test:	Not reported
Register:	True
Modified By:	TRANSLAT
Last Modified:	3/4/2004
Site ID:	54579
Tank Number:	3
Tank ID:	168286
Tank Status:	Closed - Removed
Tank Model:	Not reported
Pipe Model:	Not reported
Install Date:	6/1/1984
Capacity Gallons:	4000
Tightness Test Method:	NN
Next Test Date:	Not reported
Date Tank Closed:	3/12/2001

REID PETROLEUM (Continued) **U003318436**

Tank Location: 5
Tank Type: Equivalent technology
Date Test: Not reported
Register: True
Modified By: TRANSLAT
Last Modified: 3/4/2004

HIST UST:
PBS Number: 9-487422
SPDES Number: Not reported
Emergency Contact: CHRISTOPHER WILSON
Emergency Telephone: (800) 348-8400
Operator: REID PETROLEUM
Operator Telephone: (800) 348-8400
Owner Name: REID PETROLEUM
Owner Address: 100 W. GENESEE ST.
Owner City,St,Zip: LOCKPORT, NY 14094
Owner Telephone: (716) 434-2885
Owner Type: Corporate/Commercial
Owner Subtype: Not reported
Mailing Name: REID PETROLEUM
Mailing Address: 100 W. GENESEE ST.
Mailing Address 2: PO BOX 987
Mailing City,St,Zip: LOCKPORT, NY 14095
Mailing Contact: DIANNE GROSSLINGER
Mailing Telephone: (716) 434-2885
Owner Mark: First Owner
Facility Status: 2 - Unregulated by PBS (the total capacity is less than 1,101 gallons) and Subpart 360-14.
Facility Addr2: Not reported
SWIS ID: 1402
Old PBS Number: Not reported
Facility Type: RETAIL GASOLINE SALES
Inspected Date: 19950801
Inspector: BAJ
Inspection Result: Not reported
Federal ID: Not reported
Certification Flag: False
Certification Date: 07/01/1999
Expiration Date: 06/23/2004
Renew Flag: False
Renewal Date: Not reported
Total Capacity: 0
FAMT: True
Facility Screen: No Missing Data
Owner Screen: No Missing Data
Tank Screen: 0
Dead Letter: False
CBS Number: Not reported
Town or City: BUFFALO (C)
County Code: 14
Town or City: 02
Region: 9

Tank Id: 1
Tank Location: UNDERGROUND
Tank Status: Closed-Removed

REID PETROLEUM (Continued) **U003318436**

Install Date:	19840601
Capacity (gals):	8000
Product Stored:	UNLEADED GASOLINE
Tank Type:	Fiberglass reinforced plastic [FRP]
Tank Internal:	Fiberglass Liner (FRP)
Tank External:	40
Pipe Location:	Underground
Pipe Type:	GALVANIZED STEEL
Pipe Internal:	None
Pipe External:	Not reported
Second Containment:	None
Leak Detection:	40
Overfill Prot:	Not reported
Dispenser:	Suction
Date Tested:	Not reported
Next Test Date:	Not reported
Missing Data for Tank:	Minor Data Missing
Date Closed:	03/12/2001
Test Method:	Not reported
Deleted:	False
Updated:	True
Lat/long:	Not reported

Tank Id:	2
Tank Location:	UNDERGROUND
Tank Status:	Closed-Removed
Install Date:	19840601
Capacity (gals):	10000
Product Stored:	UNLEADED GASOLINE
Tank Type:	Fiberglass reinforced plastic [FRP]
Tank Internal:	Fiberglass Liner (FRP)
Tank External:	40
Pipe Location:	Underground
Pipe Type:	GALVANIZED STEEL
Pipe Internal:	None
Pipe External:	Not reported
Second Containment:	None
Leak Detection:	40
Overfill Prot:	Not reported
Dispenser:	Suction
Date Tested:	Not reported
Next Test Date:	Not reported
Missing Data for Tank:	Minor Data Missing
Date Closed:	03/12/2001
Test Method:	Not reported
Deleted:	False
Updated:	True
Lat/long:	Not reported

Tank Id:	3
Tank Location:	UNDERGROUND
Tank Status:	Closed-Removed
Install Date:	19840601
Capacity (gals):	4000
Product Stored:	UNLEADED GASOLINE

REID PETROLEUM (Continued) **U003318436**

Tank Type:	Fiberglass reinforced plastic [FRP]
Tank Internal:	Fiberglass Liner (FRP)
Tank External:	40
Pipe Location:	Underground
Pipe Type:	GALVANIZED STEEL
Pipe Internal:	None
Pipe External:	Not reported
Second Containment:	None
Leak Detection:	40
Overfill Prot:	Not reported
Dispenser:	Suction
Date Tested:	Not reported
Next Test Date:	Not reported
Missing Data for Tank:	Minor Data Missing
Date Closed:	03/12/2001
Test Method:	Not reported
Deleted:	False
Updated:	True
Lat/long:	Not reported

A3 **FORMER GAS STATION** **NY Spills S104953342**
South **330 MINERAL SPRINGS ROAD** **NY Hist Spills N/A**
< 1/8 **BUFFALO, NY**
0.081 mi.
429 ft. **Site 3 of 3 in cluster A**

Relative:
Higher

Actual:
582 ft.

NY Spills:

Site ID:	320580
Facility Addr2:	Not reported
Facility ID:	0013021
Spill Number:	0013021
Facility Type:	ER
SWIS:	1502
Investigator:	FXGALLEG
Referred To:	Not reported
Spill Date:	3/12/2001
Reported to Dept:	3/12/2001
CID:	233
Spill Cause:	Unknown
Water Affected:	Not reported
Spill Source:	Commercial/Industrial
Spill Notifier:	Other
Cleanup Ceased:	10/31/2001
Cleanup Meets Std:	True
Last Inspection:	3/13/2001
Recommended Penalty:	Penalty Not Recommended
UST Trust:	False
Spill Class:	Known release that creates potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt:	10/31/2001
Remediation Phase:	0
Date Entered In Computer:	3/12/2001
Spill Record Last Update:	4/1/2002
Spiller Name:	CHRIS WILSON
Spiller Company:	REID PETROLEUM
Spiller Address:	100 WEST GENESEE STREET
Spiller City,St,Zip:	LOCKPORT, NY 14094-
Spiller Company:	001

FORMER GAS STATION (Continued) **S104953342**

Contact Name:	Not reported
Contact Phone:	Not reported
DEC Region:	9
DER Facility ID:	258277
DEC Memo:	Prior to Sept, 2004 data translation this spill Lead_DEC Field was "FG" 3/13/01 FG SITE INSPECTION. MET DON SEYMOUR ON SITE. CONTAMINATION DISCOVERED AT THE NORTH END OF THE 8000 GAL UST EXCAVATION. EXCAVATION WILL BEGIN TODAY. MR. SEYMOUR BELIEVES THIS IS ONLY A MINOR SPILL AND THEY WILL BE ABLE TO DIG OUT OF IT. THERE WAS NO WATER IN THE TANK PIT EXCAVATION. JACK FISHER WITH SENTINEL CALLED AND SAID THAT THEY REMOVED 30 YDS OF CONTAMINATED SOIL AND THE EXCAVATION IS COMPLETE. HE SAID HE WILL TAKE A SAMPLE OF THE AREA THE SOIL WAS REMOVED FROM. HE WILL PROVIDE THE EXCAVATION SAMPLE RESULTS AND THE DISPOSAL RECEIPT. 4/24/01 DON SEYMOUR WITH GREEN CALLED AND SAID THAT THE SOIL WILL BE DISPOSED BY NEXT WEEK. HE WILL GET ME THE CLOSURE REPORT SHORTLY AFTER THAT. 4/30/01 RECD EXCAVATION ANALYTICAL RESULTS WHICH ARE BELOW STARS. NEED THE SOIL DISPOSAL RECEIPTS. 10/11/01: MF T/C CHRIS WILSON, LEFT MESSAGE FOR SOIL DISPOSAL RECEIPT. 10/30/01: MF RECEIVED DISPOSAL RECEIPTS. NO FURTHER ACTION NECESSARY.
Remarks:	caller was removing old gas tanks from this former gas station contaminated soil was found soil will be stock piled for removal and clean up

Material:

Site ID:	320580
Operable Unit ID:	834965
Operable Unit:	01
Material ID:	539749
Material Code:	0009
Material Name:	Gasoline
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	0
Units:	Gallons
Recovered:	No
Resource Affected:	Not reported
Oxygenate:	False

Tank Test:

Site ID:	Not reported
Spill Tank Test:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported
Leak Rate:	Not reported
Gross Fail:	Not reported
Modified By:	Not reported
Last Modified:	Not reported
Test Method:	Not reported

NY Hist Spills:

Region of Spill:	9
Spill Number:	0013021
Investigator:	FG
Caller Name:	Not reported

FORMER GAS STATION (Continued) **S104953342**

Caller Agency:	Not reported
Caller Phone:	Not reported
Notifier Name:	Not reported
Notifier Agency:	Not reported
Notifier Phone:	Not reported
Spill Date/Time:	03/12/2001 16:00
Reported to Dept Date/Time:	03/12/01 16:40
SWIS:	14
Spiller Name:	REID PETROLEUM
Spiller Contact:	CHRIS WILSON
Spiller Phone:	(716) 434-2885
Spiller Address:	100 WEST GENESEE STREET
Spiller City,St,Zip:	LOCKPORT, NY 14094-
Spill Cause:	Unknown
Reported to Dept:	On Land
Water Affected:	Not reported
Spill Source:	01
Spill Notifier:	Other
PBS Number:	Not reported
Cleanup Ceased:	10/31/01
Cleanup Meets Std:	True
Last Inspection:	03/13/01
Recommended Penalty:	Penalty Not Recommended
Spiller Cleanup Dt:	/ /
Enforcement Date:	/ /
Invstgn Complete:	/ /
UST Involvement:	False
Spill Class:	Known release that creates potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt:	10/31/01
Corrective Action Plan Submitted:	/ /
Date Region Sent Summary to Central Office:	/ /
Date Spill Entered In Computer Data File:	03/12/01
Date Spill Entered In Computer Data File:	Not reported
Update Date:	10/31/01
Is Updated:	False

Tank:

PBS Number:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported
Leak Rate Failed Tank:	Not reported
Gross Leak Rate:	Not reported

Material:

Material Class Type:	Petroleum
Quantity Spilled:	0
Unkonwn Quantity Spilled:	True
Units:	Gallons
Quantity Recovered:	0
Unkonwn Quantity Recovered:	False
Material:	GASOLINE
Class Type:	GASOLINE
Times Material Entry In File:	21329
CAS Number:	Not reported
Last Date:	19940929

DEC Remarks: 3/13/01 FG SITE INSPECTION. MET DON SEYMOUR ON SITE. CONTAMINATION

NATIONAL FUEL GAS (Continued) **S102173927**

FOR OIL IN DRIVEWAY. RESP. PARTY AGREED TO FINISH MINOR CLEANUP & PROPERLY DISPOSE OF DRUMES OF OILY DEBRIS. 07/05/91: 7/5/91 MNP FILE REVIEW DISPOSAL RECEIPTS RECEIVED ON 6/26/91. NO FURTHER ACTION NEEDED, COMPLETE.

Remarks: HYDRAULIC LINE BROKE ON CRANE SPILLING OIL ON BLACKTOP & STONE.

Material:

Site ID:	61640
Operable Unit ID:	953672
Operable Unit:	01
Material ID:	426351
Material Code:	0022
Material Name:	Waste Oil/Used Oil
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	35
Units:	Gallons
Recovered:	35
Resource Affected:	Not reported
Oxygenate:	False
Site ID:	61640
Operable Unit ID:	953672
Operable Unit:	01
Material ID:	426350
Material Code:	0010
Material Name:	Hydraulic Oil
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	0
Units:	Not reported
Recovered:	No
Resource Affected:	Not reported
Oxygenate:	False

Tank Test:

Site ID:	Not reported
Spill Tank Test:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported
Leak Rate:	Not reported
Gross Fail:	Not reported
Modified By:	Not reported
Last Modified:	Not reported
Test Method:	Not reported

NY Hist Spills:

Region of Spill:	9
Spill Number:	9100137
Investigator:	MNP
Caller Name:	Not reported
Caller Agency:	Not reported
Caller Phone:	Not reported
Notifier Name:	Not reported
Notifier Agency:	Not reported
Notifier Phone:	Not reported

FORMER GAS STATION (Continued) **S104953342**

DISCOVERED AT THE NORTH END OF THE 8000 GAL UST EXCAVATION. EXCAVATION WILL BEGIN TODAY. MR. SEYMOUR BELIEVES THIS IS ONLY A MINOR SPILL AND THEY WILL BE ABLE TO DIG OUT OF IT.THERE WAS NO WATER IN THE TANK PIT EXCAVATION. JACK FISHER WITH SENTINEL CALLED AND SAID THAT THEY REMOVED 30 YDS OF CONTAMINATED SOIL AND THE EXCAVATION IS COMPLETE. HE SAID HE WILL TAKE A SAMPLE OF THE AREA THE SOIL WAS REMOVED FROM. HE WILLPROVIDE THE EXCAVATION SAMPLE RESULTS AND THE DISPOSAL RECEIPT. 4/24/01 DON SEYMOUR WITH GREEN CALLED AND SAID THAT THE SOIL WILL BE DISPOSED BY NEXT WEEK. HE WILL GET ME THE CLOSURE REPORT SHORTLY AFTER THAT. 4/30/01 RECD EXCAVATION ANALYTICAL RESULTS WHICH ARE BELOW STARS. NEED THE SOIL DISPOSAL RECEIPTS. 10/11/01: MF T/C CHRIS WILSON, LEFT MESSAGE FOR SOIL DISPOSAL RECEIPT. 10/30/01: MF RECEIVED DISPOSAL RECEIPTS. NO FURTHER ACTION NECESSARY.

Remark: caller was removing old gas tanks from this former gas station contaminated soil was found soil will be stock piled for removal and clean up

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4
SE
< 1/8
0.100 mi.
528 ft.

NATIONAL FUEL GAS
265 MINERAL SPRINGS ROAD
WEST SENECA, NY

NY Spills **S102173927**
NY Hist Spills **N/A**

Relative:
Higher

Actual:
596 ft.

NY Spills:

Site ID:	61640
Facility Addr2:	Not reported
Facility ID:	9100137
Spill Number:	9100137
Facility Type:	ER
SWIS:	1568
Investigator:	PRINGLE
Referred To:	Not reported
Spill Date:	4/2/1991
Reported to Dept:	4/2/1991
CID:	Not reported
Spill Cause:	Equipment Failure
Water Affected:	Not reported
Spill Source:	Commercial Vehicle
Spill Notifier:	Responsible Party
Cleanup Ceased:	7/5/1991
Cleanup Meets Std:	True
Last Inspection:	4/3/1991
Recommended Penalty:	Penalty Not Recommended
UST Trust:	False
Spill Class:	Not reported
Spill Closed Dt:	7/5/1991
Remediation Phase:	0
Date Entered In Computer:	4/18/1991
Spill Record Last Update:	8/6/1991
Spiller Name:	Not reported
Spiller Company:	NATIONAL FUEL GAS
Spiller Address:	10 LAFAYETTE SQUARE
Spiller City,St,Zip:	BUFFALO, NY 14203
Spiller Company:	001
Contact Name:	Not reported
Contact Phone:	Not reported
DEC Region:	9
DER Facility ID:	59908
DEC Memo:	Prior to Sept, 2004 data translation this spill Lead_DEC Field was "MNP" 04/03/91: 4/3/91 MNP INSP. SPILL CLEANUP SATISFACTORY EXCEPT

NATIONAL FUEL GAS (Continued) S102173927

Spill Date/Time: 04/02/1991 14:45
Reported to Dept Date/Time: 04/02/91 15:55
SWIS: 14
Spiller Name: NATIONAL FUEL GAS
Spiller Contact: Not reported
Spiller Phone: (716) 857-6932
Spiller Address: 10 LAFAYETTE SQUARE
Spiller City,St,Zip: BUFFALO, NY 14203
Spill Cause: Equipment Failure
Reported to Dept: On Land
Water Affected: Not reported
Spill Source: 07
Spill Notifier: Responsible Party
PBS Number: Not reported
Cleanup Ceased: 07/05/91
Cleanup Meets Std: True
Last Inspection: 04/03/91
Recommended Penalty: Penalty Not Recommended
Spiller Cleanup Dt: / /
Enforcement Date: / /
Invstgn Complete: / /
UST Involvement: False
Spill Class: Not reported
Spill Closed Dt: 07/05/91
Corrective Action Plan Submitted: / /
Date Region Sent Summary to Central Office: / /
Date Spill Entered In Computer Data File: 04/18/91
Date Spill Entered In Computer Data File: Not reported
Update Date: 08/06/91
Is Updated: False

Tank:
PBS Number: Not reported
Tank Number: Not reported
Tank Size: Not reported
Test Method: Not reported
Leak Rate Failed Tank: Not reported
Gross Leak Rate: Not reported

Material:
Material Class Type: Petroleum
Quantity Spilled: 35
Unkonwn Quantity Spilled: False
Units: Gallons
Quantity Recovered: 35
Unkonwn Quantity Recovered: False
Material: WASTE OIL
Class Type: WASTE OIL
Times Material Entry In File: 9509
CAS Number: Not reported
Last Date: 19940927
Material Class Type: Petroleum
Quantity Spilled: 0
Unkonwn Quantity Spilled: False
Units: Not reported
Quantity Recovered: 0
Unkonwn Quantity Recovered: False
Material: HYDRAULIC OIL

NATIONAL FUEL GAS (Continued) **S102173927**

Class Type: HYDRAULIC OIL
Times Material Entry In File: 1846
CAS Number: Not reported
Last Date: 19940728
DEC Remarks: 04/03/91: 4/3/91 MNP INSP. SPILL CLEANUP SATISFACTORY EXCEPT FOR OIL IN DRIVEWAY. RESP. PARTY AGREED TO FINISH MINOR CLEANUP PROPERLY DISPOSE OF DRUMES OF OILY DEBRIS. 07/05/91: 7/5/91 MNP FILE REVIEW DISPOSAL RECEIPTS RECEIVED ON 6/26/91. NO FURTHER ACTION NEEDED, COMPLETE.
Remark: HYDRAULIC LINE BROKE ON CRANE SPILLING OIL ON BLACKTOP STONE.

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5 **SHEEN IN BUFFALO RIVER** **NY Spills** **S103563089**
WSW **145 POMONA STREET - RIVER** **NY Hist Spills** **N/A**
1/8-1/4 **BUFFALO, NY**
0.130 mi.
684 ft.

Relative:
Lower

Actual:
580 ft.

NY Spills:
Site ID: 276156
Facility Addr2: Not reported
Facility ID: 9507460
Spill Number: 9507460
Facility Type: ER
SWIS: 1502
Investigator: SORGI
Referred To: Not reported
Spill Date: 9/17/1995
Reported to Dept: 9/18/1995
CID: Not reported
Spill Cause: Other
Water Affected: BUFFALO RIVER
Spill Source: Institutional, Educational, Gov., Other
Spill Notifier: Citizen
Cleanup Ceased: 9/18/1995
Cleanup Meets Std: True
Last Inspection: 9/18/1995
Recommended Penalty: Penalty Not Recommended
UST Trust: False
Spill Class: Possible release with minimal potential for fire or hazard or Known release with no damage. No DEC Response. No corrective action required.
Spill Closed Dt: 9/18/1995
Remediation Phase: 0
Date Entered In Computer: 9/20/1995
Spill Record Last Update: 9/25/1995
Spiller Name: Not reported
Spiller Company: UNKNOWN
Spiller Address: Not reported
Spiller City,St,Zip: NY
Spiller Company: 999
Contact Name: Not reported
Contact Phone: Not reported
DEC Region: 9
DER Facility ID: 224519
DEC Memo: Prior to Sept, 2004 data translation this spill Lead_DEC Field was "MJS" 09/18/95: MJS SITE INSPECT. MET W/ MRS KANDRAC. SLIGHT SHEEN ON RIVER. SHE REPORTS MUCH HEAVIER YESTERDAY(9/17). POSSIBLY SEWER GREASE BALLS ACCORDING TO DESCRIPTION. NO ACTION POSSIBLE. MJS CLOSE FILE. 09/29/95: This is additional information about material spilled

SHEEN IN BUFFALO RIVER (Continued) **S103563089**

from the translation of the old spill file: SEWER GREASE.
Remarks: BROWN OIL IN RIVER, DETERMINED TO BE SEWAGE OVERFLOW THROUGH CSO

Material:
Site ID: 276156
Operable Unit ID: 1022173
Operable Unit: 01
Material ID: 361884
Material Code: 0066A
Material Name: UNKNOWN PETROLEUM
Case No.: Not reported
Material FA: Petroleum
Quantity: 0
Units: Not reported
Recovered: No
Resource Affected: Not reported
Oxygenate: False

Tank Test:
Site ID: Not reported
Spill Tank Test: Not reported
Tank Number: Not reported
Tank Size: Not reported
Test Method: Not reported
Leak Rate: Not reported
Gross Fail: Not reported
Modified By: Not reported
Last Modified: Not reported
Test Method: Not reported

NY Hist Spills:
Region of Spill: 9
Spill Number: 9507460
Investigator: MJS
Caller Name: Not reported
Caller Agency: Not reported
Caller Phone: Not reported
Notifier Name: Not reported
Notifier Agency: Not reported
Notifier Phone: Not reported
Spill Date/Time: 09/17/1995 11:00
Reported to Dept Date/Time: 09/18/95 11:48
SWIS: 14
Spiller Name: UNKNOWN
Spiller Contact: Not reported
Spiller Phone: Not reported
Spiller Address: Not reported
Spiller City,St,Zip: Not reported
Spill Cause: Other
Reported to Dept: Surface Water
Water Affected: BUFFALO RIVER
Spill Source: 02
Spill Notifier: Citizen
PBS Number: Not reported
Cleanup Ceased: 09/18/95
Cleanup Meets Std: True

SHEEN IN BUFFALO RIVER (Continued) **S103563089**

Last Inspection: 09/18/95
Recommended Penalty: Penalty Not Recommended
Spiller Cleanup Dt: / /
Enforcement Date: / /
Invstgn Complete: / /
UST Involvement: False
Spill Class: Possible release with minimal potential for fire or hazard or Known release with no damage. No DEC Response. No corrective action required.
Spill Closed Dt: 09/18/95
Corrective Action Plan Submitted: / /
Date Region Sent Summary to Central Office: / /
Date Spill Entered In Computer Data File: 09/20/95
Date Spill Entered In Computer Data File: Not reported
Update Date: 09/25/95
Is Updated: False

Tank:
PBS Number: Not reported
Tank Number: Not reported
Tank Size: Not reported
Test Method: Not reported
Leak Rate Failed Tank: Not reported
Gross Leak Rate: Not reported

Material:
Material Class Type: Petroleum
Quantity Spilled: 0
Unkonwn Quantity Spilled: True
Units: Not reported
Quantity Recovered: 0
Unkonwn Quantity Recovered: True
Material: UNKNOWN PETROLEUM
Class Type: UNKNOWN PETROLEUM
Times Material Entry In File: 16414
CAS Number: Not reported
Last Date: 19940929
DEC Remarks: 09/18/95: MJS SITE INSPECT. MET W/ MRS KANDRAC. SLIGHT SHEEN ON RIVER. SHE REPORTS MUCH HEAVIER YESTERDAY 9/17). POSSIBLY SEWER GREASE BALLS ACCORDING TO DESCRIPTION. NO ACTION POSSIBLE. MJS CLOSE FILE. 09/29/95: This is additional information about material spilled from the translation of the old spill file: SEWER GREASE.
Remark: BROWN OIL IN RIVER, DETERMINED TO BE SEWAGE OVERFLOW THROUGH CSO

6
South
1/8-1/4
0.130 mi.
685 ft.

Relative:
Higher

Actual:
589 ft.

REFUSE TRUCK SPILL **NY Spills** **S106016681**
24 FRANK AVENUE **N/A**
BUFFALO, NY

NY Spills:
Site ID: 318400
Facility Addr2: Not reported
Facility ID: 0375230
Spill Number: 0375230
Facility Type: ER
SWIS: 1502
Investigator: BRENNAN
Referred To: Not reported

REFUSE TRUCK SPILL (Continued) **S106016681**

Spill Date:	7/28/2003
Reported to Dept:	7/31/2003
CID:	Not reported
Spill Cause:	Equipment Failure
Water Affected:	Not reported
Spill Source:	Commercial Vehicle
Spill Notifier:	Citizen
Cleanup Ceased:	Not reported
Cleanup Meets Std:	True
Last Inspection:	Not reported
Recommended Penalty:	Penalty Not Recommended
UST Trust:	False
Spill Class:	No spill occured. No DEC Response. No corrective action required.
Spill Closed Dt:	7/31/2003
Remediation Phase:	0
Date Entered In Computer:	7/31/2003
Spill Record Last Update:	7/31/2003
Spiller Name:	Not reported
Spiller Company:	Not reported
Spiller Address:	Not reported
Spiller City,St,Zip:	***Update***, ZZ
Spiller Company:	001
Contact Name:	TRACY
Contact Phone:	(716) 825-1353
DEC Region:	9
DER Facility ID:	256648
DEC Memo:	Prior to Sept, 2004 data translation this spill Lead_DEC Field was "KAB" 07/31/03: KAB RECEIVED COMPLAINT OF GREASE ON FRANK AVE. ALLEGEDLY SPILLED THERE BY A CITY SANITATION TRUCK. REFERRED COMPLAINT TO DIV. OF LAW ENFORCEMENT FOR FOLLOW-UP, NO FURTHER ACTION BY SPILLS UNLESS LAW ENFORCEMENT REQUESTS ASSISTANCE WITH CLEANUP. CLOSE OUT.
Remarks:	COMPLAINANT ALLEGES THAT CITY OF BUFFALO REFUSE TRUCK SPILLED SOME FORM OF GREASE (SAYS IT DOES NOT APPEAR TO BE HYDRAULIC OIL) ON ROADWAY AND THAT THERE IS A POOL OF IT IN FRONT OF HER HOUSE. SHE HAS CONTACTED THE MAYOR'S COMPLAINT LINE AND IS DISSATISFIED WITH THE RESPONSE THAT IT MAY TAKE UP TO 10 DAYS TO GET SOMEONE OUT THERE TO CLEAN IT UP.

Material:

Site ID:	318400
Operable Unit ID:	884087
Operable Unit:	01
Material ID:	494424
Material Code:	0066A
Material Name:	UNKNOWN PETROLEUM
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	0
Units:	Gallons
Recovered:	No
Resource Affected:	Not reported
Oxygenate:	False

Tank Test:

Site ID:	Not reported
Spill Tank Test:	Not reported

REFUSE TRUCK SPILL (Continued) **S106016681**

Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported
Leak Rate:	Not reported
Gross Fail:	Not reported
Modified By:	Not reported
Last Modified:	Not reported
Test Method:	Not reported

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7 **SCHOOL 27 HILLARY PARK** **LTANKS** **S106123937**
SSW **73 PAWNEE PARKWAY** **N/A**
1/8-1/4 **BUFFALO, NY**
0.142 mi.
751 ft.

Relative:
Higher

Actual:
585 ft.

LTANKS:

Site ID:	182668
Spill No:	0375442
Spill Date:	1/7/2004
Spill Cause:	Tank Test Failure
Spill Source:	Institutional, Educational, Gov., Other
Spill Class:	Known release that creates potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt:	10/18/2004
Facility Addr2:	Not reported
Cleanup Ceased:	Not reported
Cleanup Meets Standard:	True
SWIS:	1502
Investigator:	JFOTTO
Referred To:	Not reported
Reported to Dept:	1/7/2004
CID:	Not reported
Water Affected:	Not reported
Spill Notifier:	Other
Last Inspection:	Not reported
Recommended Penalty:	Penalty Not Recommended
UST Involvement:	False
Remediation Phase:	0
Date Entered In Computer:	1/7/2004
Spill Record Last Update:	10/19/2004
Spiller Name:	WILLIAM MOSS
Spiller Company:	BUFFALO BOARD OF EDUCATIO
Spiller Address:	Not reported
Spiller City,St,Zip:	BUFFALO, NY 14202-
Spiller County:	001
Spiller Contact:	BILL SMITH
Spiller Phone:	(716) 828-4773
Spiller Extention:	Not reported
DEC Region:	9
DER Facility ID:	153056
Remarks:	tank test failure

Material:

Site ID:	182668
Operable Unit ID:	882272
Operable Unit:	01

SCHOOL 27 HILLARY PARK (Continued) **S106123937**

Material ID:	494627
Material Code:	0001
Material Name:	#2 Fuel Oil
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	0
Units:	Gallons
Recovered:	No
Resource Affected:	Not reported
Oxygenate:	False

Tank Test:

Site ID:	Not reported
Spill Tank Test:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported
Leak Rate:	Not reported
Gross Fail:	Not reported
Modified By:	Not reported
Last Modified:	Not reported
Test Method:	Not reported

B8 **NFG SERVICE CTR** **NY Spills S102173734**
ESE **365 MINERAL SPRINGS ROAD** **NY Hist Spills N/A**
1/8-1/4 **WEST SENECA, NY**
0.148 mi.
784 ft. **Site 1 of 8 in cluster B**

Relative:
Higher

Actual:
590 ft.

NY Spills:

Site ID:	328495
Facility Addr2:	Not reported
Facility ID:	9975292
Spill Number:	9975292
Facility Type:	ER
SWIS:	1568
Investigator:	SORGI
Referred To:	Not reported
Spill Date:	7/16/1999
Reported to Dept:	7/16/1999
CID:	Not reported
Spill Cause:	Equipment Failure
Water Affected:	Not reported
Spill Source:	Commercial/Industrial
Spill Notifier:	Responsible Party
Cleanup Ceased:	Not reported
Cleanup Meets Std:	True
Last Inspection:	7/16/1999
Recommended Penalty:	Penalty Not Recommended
UST Trust:	False
Spill Class:	Known release with minimal potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt:	9/18/2000
Remediation Phase:	0
Date Entered In Computer:	7/16/1999
Spill Record Last Update:	9/29/2000

NFG SERVICE CTR (Continued) **S102173734**

Spiller Name:	CHARLIE BURKE
Spiller Company:	NATIONAL FUEL GAS
Spiller Address:	365 MINERAL SPRINGS ROAD
Spiller City,St,Zip:	BUFFALO, NY 14210-
Spiller Company:	001
Contact Name:	Not reported
Contact Phone:	Not reported
DEC Region:	9
DER Facility ID:	264365
DEC Memo:	Prior to Sept, 2004 data translation this spill Lead_DEC Field was "MJS" 07/16/99: MJS SITE INSPECTION, MET MR. BURKE. THEY ARE INSTALLING SPILL BUCKETS UNDER DISPENSERS AND FOUND CONTAMINATED SOILS UNDER 12" THICK CONCRETE PAD. CONTAMINATED GRAVEL REMOVED BY HAND AND SET ASIDE. EXTENT OF CONTAMINATION UNDETERMINED. REMOVAL OF CONCRETE PAD AND DISPENSER AREA NOT PRACTICAL FOR AMOUNT OF CONTAMINATION THAT APPARENTLY REMAINS. MJS SUGGESTED PERFORMING THREE BORINGS AROUND TANK AND DISPENSER AREA AND OBTAINING SOIL SAMPLES FROM BORINGS AND FROM CONTAMINATED AREA FOR POSSIBLE EXPOSURE ASSESSMENT. HE STATED HE WOULD CONTACT MAXIM FOR SOIL BORINGS. 07/19/99: MJS TELECON WITH MR BURKE. MAXIM TO BE ON SITE TOMORROW TO INSTALL THREE BORINGS AND TAKE SAMPLES. 07/20/99: MJS TELECON WITH MR BURKE. SOIL BORINGS PERFORMED TODAY BY MAXIM AND SOIL SAMPLES SUBMITTED FOR ANALYSIS. HE STATED THAT THEY FOUND SOME ODORS IN ONE OF THE BORINGS. MJS STATED THAT IF SAMPLE RESULTS INDICATE CONTAMINATION, WE MAY REQUIRE FURTHER DELINEATION FOR THE EXPOSURE ASSESSMENT. HE WILL FORWARD SAMPLE RESULTS. 07/22/99: MJS RECEIVED FAX OF SAMPLE RESULTS FOR AREA UNDER DISPENSER AND THREE SOIL BORINGS. BORING TO NORTH OF DISPENSER INDICATES VERY HIGH CONTAMINANT LEVELS FOR SEMI-VOLATILES. LEVELS DO NOT MEET EXPOSURE ASSESSMENT VALUES. FURTHER WORK WILL BE REQUIRED (DELINEATION, EXCAVATION, REMEDIATION). MJS TELECON TO CHARLIE BURKE AND SET UP MEETING FOR TOMORROW AT 0930 HRS. 07/23/99: MJS AND RNL SITE INSPECTION, MET WITH MR BURKE. DISCUSSED SAMPLE RESULTS. MR BURKE STATED THAT HE OBSERVED ALL SAMPLES TAKEN. SAMPLE THAT SHOWED HIGH LEVELS OF CONTAMINATION HAD NO ODORS AND PID METER READING WAS BACKGROUND. LAB STATED TO HIM THAT THEY HAD PROBLEMS WITH SAMPLE AND HAD TO ALTER THEIR PROCESS. IN LIGHT OF THIS, ALL PARTIES AGREED THAT RESULTS FOR THIS BORING LOCATION ARE QUESTIONABLE. MR BURKE AGREED TO EXCAVATE AREA OF THIS BORING FOR INSPECTION BY DEC AND WILL RESAMPLE. HE WILL ALSO OBTAIN SAMPLE OF SOIL BETWEEN THIS AREA AND SOURCE OF LEAK (PIPING AND CONDUIT TRENCH). IF THESE SAMPLE RESULTS DO NOT INDICATE ELEVATED CONTAMINANT LEVELS, WE WILL CLOSE FILE LEAVING VERY LIMITED AMOUNT OF DIESEL CONTAMINATED SOIL UNDERNEATH CONCRETE PAD. 07/28/99: MJS RECEIVED FAX OF SAMPLE RESULTS FOR SAMPLE OBTAINED FROM PIPING TRENCH. ALL RESULTS NON-DETECT. MJS TELECON WITH MR BURKE AND EXPLAINED THAT RESULTS INDICATE NO CONTAMNATION IN THIS AREA. HE IS STILL COORDINATING EXCAVATION IN GRASS AREA WHERE PREVIOUS BORING SAMPLE SUGGESTS CONTAMINATION. 08/10/99: MJS RECEIVED MESSAGE FROM TANYA ALEXANDER FROM NFG THAT THEY WILL BE EXCAVATING IN GRASS AREA TOMORROW MORNING. 08/11/99: MJS SITE INSPECTION, MET WITH TANYA ALEXANDER, CHARLIE BURKE ON VACATION. EXCAVATED TRENCH DIRECTLY OVER PREVIOUS SOIL BORING TO APPROX. SEVEN FEET BELOW GRADE. FOUND FILL CONSISTING OF BRICKS, ASPHALT, COAL AND SLAG. THE ASPHALT AND COAL CONTENT IN LAST SAMPLE IS THE PROBABLE CAUSE FOR THE ELEVATED SAMPLE RESULTS FOUND IN BORING SAMPLE. MJS NOTED NO DIESEL OR GASOLINE ODORS. HARD GRAY CLAY FOUND BELOW THE FILL. OBTAINED SAMPLE OF FILL MATERIAL AND SAMPLE OF CLAY. MJS TO ADVISE MRS ALEXANDER REGARDING

NFG SERVICE CTR (Continued) **S102173734**

REQUIRED ANALYSIS. ALSO FOUND CLUMPS OF BLUE MATERIAL. MRS ALEXANDER STATED THAT IT IS FERRIC CYANIDE AND THIS IS WHAT OUR HAZ-WASTE DIVISION IS CURRENTLY INVOLVED WITH AT THIS SITE. MJS OBTAINED SAMPLE OF THE MATERIAL. 08/23/99: MJS TELECON WITH CHARLIE BURKE. HE SUBMITTED SAMPLES FOR ANALYSIS AND IS WAITING FOR RESULTS. 08/26/99: MJS RECEIVED FAX OF SAMPLE RESULTS FOR "CLAY" SAMPLE. 520 PPB TOTAL SVOC CONTAMINANTS (ALL COMPOUNDS WITHIN ALTERNATIVE SOIL GUIDANCE VALUES). 09/01/99: MJS TELECON WITH MR BURKE AND HE WILL FAX RESULTS FROM SAMPLE OF FILL MATERIAL ABOVE CLAY. HE STATED THAT RESULTS ARE SIMILAR TO THOSE FROM SAMPLE FROM SOIL BORING IN THIS AREA. RECEIVED FAX OF SAMPLE RESULTS. METHOD 8270 RESULTS ARE ELEVATED AND SIMILAR TO SOIL BORING RESULTS. NOTE: BOTH SOIL SAMPLES WITH ELEVATED SEMI-VOLATILE RESULTS EXHIBITED NO PETROLEUM ODOR AND SAMPLE FROM BORING HAD PID METER READING OF "0". PID READING NOT TAKEN ON SECOND SAMPLE TAKEN ON 8/11/99. ELEVATED CONCENTRATIONS OF SEMI-VOLATILES ARE DUE TO ASPHALT, COAL, CINDERS, ETC FOUND IN FILL AND NOT FROM DIESEL FUEL CONTAMINATION. MJS DISCUSS SITE WITH RNL AND AGREED THAT SITE CAN BE MADE INACTIVE. MJS REVIEW FILE. NEED DISPOSAL DOCUMENTATION FOR EXCAVATED SOILS TO COMPLETE FILE. MJS NOTIFIED MR BURKE AND HE WILL HAVE SOIL DISPOSED. MJS DRAFTED LETTER REGARDING SOIL DISPOSAL. 10/13/99: MJS RECEIVED LETTER AND BILL OF LADING FROM MR BURKE. NO FURTHER ACTION REQUIRED. MJS FILE "INACTIVE" 06/22/00: MJS NOTIFIED BY GREG SUTTON (NYSDEC) THAT NFG FOUND OIL IN TRENCH FOR NEW GAS LINE IMMEDIATELY ADJACENT TO CONCRETE PAD. HE IS INVOLVED WITH HAZ-WASTE REMEDIATION ON SITE. OIL APPEARS TO BE WEEPING INTO TRENCH FROM DIRECTION OF FUEL ISLAND AND SEEMS TO BE LOCKED UP IN GRAVEL/SOIL UNDER CONCRETE PAD. THEY APPLIED SORBENT PADS TO WATER IN TRENCH TO COLLECT ANY FREE PRODUCT. 06/22/00: MJS RE-OPEN FILE. 06/26/00: MJS DISCUSSED SITUATION WITH KEVIN GLASER (NYSDEC). THEY PROPOSE LIFTING CONCRETE PAD AND EXCAVATING IMPACTED GRAVEL. MJS TO MEET WITH MR GLASER ON SITE TOMORROW AT 0900 HRS. 06/27/00: MJS SITE INSPECTION, MET CHARLIE BURKE (NFG) AND DAN SHEARER WITH THERMO RETEC (CONSULTANT). SOME OIL CONTAMINATION ON WATER IN TRENCH. NO NEW PRODUCT SINCE SORBENT PADS APPLIED AND REMOVED. CONSULTANT WORKING ON HAZ-WASTE PROJECT WILL REMOVE CONCRETE PAD WHEN THEY HAVE A BREAK IN THEIR CURRENT OPERATIONS AND EXCAVATE GRAVEL/SOILS. 08/14/00: MJS TELECON FROM DAN SCHEARER. THEY ARE STARTING WORK TOMORROW. MJS SPOKE WITH GREG SUTTON (HAZ-WASTE) AND HE WILL BE ON SITE TOMORROW. 08/15/00: MJS TELECON WITH DAN SCHEARER. THEY ARE SCEENING CONTAMINATED SOILS AND STAGING FOR DISPOSAL. EXCAVATION IS CURRENTLY 10X20X3 AND IS REPORTEDLY CLEANING UP WELL. THEY WILL OBTAIN COMPOSITE SAMPLES FROM BOTTOM AND WALLS (8021/8270). 08/17/00: MJS TELECON WITH DAN SCHERER. HE REPORTS THAT CONTAMINATION FOUND ALONG SEWER LINE AND UNDER DISPENSER. THEY REQUESTED AN INSPECTION. MJS SITE INSPECTION, MET WITH KEVIN GLASER (NYSDEC), CHARLIE BURKE (NFG) AND DAN SCHEARER (THERMO RETEC). SOILS UNDER CONCRETE PAD REMOVED AND STAGED ON SITE FOR DISPOSAL. CONTAMINATION APPEARS TO HAVE FOLLOWED 6" PVC SEWER LINE TRENCH. THEY CANNOT FOLLOW CONTAMINATION ANY MORE AS NATURAL GAS LINE RUNS OVER TOP. WHEN TIME ALLOWS THEY WILL JUMP TO OTHER SIDE OF GAS LINE AND CONTINUE REMOVAL OF SOILS FROM AROUND SEWER LINE.(SEE SKETCH) ALSO, THEY WILL PACK EXTERIOR OF SEWER LINE WITH BENTONITE TO PREVENT MIGRATION OF OIL BACK INTO MAIN EXCAVATION. SOME CONTAMINATED STONE AND SOILS FOUND TO RUN UNDER DISPENSER. THEY WILL HAND DIG AS MUCH CONTAMINATED MATERIAL AS POSSIBLE. SOIL SAMPLE RESULTS FROM 8/99 INDICATE THAT CONTAMINATION DOES NOT RUN ON OTHER SIDE OF DISPENSER. DECISION MADE THAT CONCRETE PAD ON OTHER SIDE OF DISPENSER DOES NOT NEED REMOVAL. MJS TO REINSPECT LATER TODAY OR

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TOMORROW. 08/18/00: MJS SITE INPSECTION, MET KEVIN GLASER, CHARLIE BURKE/SLC/THERMORETEC. MAIN EXCAVATION UNDER CONCRETE PADS COMPLETE AND PARTIALLY BACKFILLED. THEY ARE EXCAVATING ON OTHER SIDE OF NATURAL GAS LINE, FREE PRODUCT FOUND IN 6" PVC SEWER TRENCH BACKFILL. 6" PVC CONNECTS TO 36" CONCRETE SEWER LINE (SEE SKETCH), CONCERN IS THAT CONTAMINATION MIGRATED TO BACKFILL FOR 36" LINE. NFG EXCAVATED AROUND TIE-IN AND FOUND THAT 36" CONCRETE LINE BACKFILLED WITH PACKED CLAY AND APPEARS TO HAVE PREVENTED MIGRATION OF OIL ALONG 36" MAIN SEWER LINE, ALSO, TRENCH FOUND TO INTERSECT 6" CLAY TILE LINE.(SEE SKETCH). PID READINGS ON BACKFILL AROUND CLAY TILE FOUND TO BE APPROX 20 PPM ON UPHILL SIDE AND APPROX 200 PPM ON DOWNHILL SIDE. APPEARS THAT OIL MIGRATED IN BACKFILL TO SOME DEGREE ON DOWNHILL SIDE. WORK TO CONTINUE ON MONDAY 8/21. 08/21/00: MJS SITE INSPECTION, MET KEVIN GLASER, CHARLIE BURKE/SLC/THERMO RETEC. DECISION TO EXCAVATE SOILS FROM DOWNHILL SIDE OF CLAY TILE LINE. NFG EXCAVATED LATERALLY APPROX SIX FEET OF CLAY TILE. PID READINGS REDUCED FROM APPR0X 200 PPM TO 29.1 PPM. MJS REQUESTED COMPOSITE SAMPLE FROM MAIN TRENCH FOR 6" PVC LINE AND GRAB SAMPLE FROM BACKFILL FOR 6" CLAY TILE AT EXCAVATION ENDPOINT. THEY WILL RUN SAMPLES VIA TCLP METHODOLOGY AND RESULTS DUE IN APPROX ONE WEEK. 08/29/00: MJS RECEIVED FAX OF TCLP ANALYTICAL RESULTS FOR ALL SAMPLES. ALL COMPOUNDS NON-DETECT ON TCLP 8270 RESULTS. SAME FOR VOLATILES (TCLP 8260) EXCEPT NAPTHALENE DETECTED AT LOW LEVELS IN ALL FOUR SAMPLES. 08/30/00: MJS TELECON WITH DAN SCHEARER AND ADVISED HIM THAT NO FURTHER WORK REQUIRED. NEED DISPOSAL DOCUMENTATION FOR FILE CLOSURE. 09/18/00: MJS RECEIVED (9/6) DISPOSAL DOCUMENTATION FOR CONTAMINATED SOILS. 146.74 TONS DISPOSED AT CHAFFEE LANDFILL. NO FURTHER ACTION REQUIRED. MJS CLOSE FILE. SENT CLOSURE LETTER TO CHARLIE BURKE.

Remarks: WHILE REPLACING LINES AT FUEL ISLAND, ENCOUNTERED CONTAMINATED SOIL WHICH APPEARS TO BE THE RESULT OF A LOOSE FITTING.

Material:

Site ID:	328495
Operable Unit ID:	1091438
Operable Unit:	01
Material ID:	291808
Material Code:	0008
Material Name:	Diesel
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	0
Units:	Gallons
Recovered:	No
Resource Affected:	Not reported
Oxygenate:	False

Tank Test:

Site ID:	Not reported
Spill Tank Test:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported
Leak Rate:	Not reported
Gross Fail:	Not reported
Modified By:	Not reported
Last Modified:	Not reported
Test Method:	Not reported

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Site ID:	328492
Facility Addr2:	Not reported
Facility ID:	8702469
Spill Number:	8702469
Facility Type:	ER
SWIS:	1568
Investigator:	PRINGLE
Referred To:	Not reported
Spill Date:	6/23/1987
Reported to Dept:	6/25/1987
CID:	Not reported
Spill Cause:	Deliberate
Water Affected:	BUFFALO RIVER
Spill Source:	Commercial/Industrial
Spill Notifier:	Responsible Party
Cleanup Ceased:	Not reported
Cleanup Meets Std:	False
Last Inspection:	6/17/1996
Recommended Penalty:	Penalty Recommended
UST Trust:	False
Spill Class:	Known release that creates potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt:	11/25/1997
Remediation Phase:	0
Date Entered In Computer:	7/2/1987
Spill Record Last Update:	4/12/2001
Spiller Name:	Not reported
Spiller Company:	NATIONAL FUEL GAS
Spiller Address:	10 LAFAYETTE SQUARE
Spiller City,St,Zip:	BUFFALO, NY 14203
Spiller Company:	001
Contact Name:	Not reported
Contact Phone:	Not reported
DEC Region:	9
DER Facility ID:	264365
DEC Memo:	Prior to Sept, 2004 data translation this spill Lead_DEC Field was "MNP" / / : 7/31/87 TELECON W/BALSOM, E&E, STILL WAITING FOR ANALYSIS FOR DISPOSAL, SHE WAS ON SITE DURING EXCAVATION, AREA GRADED;NEEDS INSP. / / : SAMPLE RESULTS ON MATERIAL SUBMITTED 07/06/87 TO AES. / / : 7/24/87 RECEIVED SAMPLE RESULTS FROM AES, LUB. OIL IN ALL 3 SAMPLES;7/30/87 TELECON W/MILL, N.M., SOIL REMOVED & ON SITE. 08/11/87: LEGAL REFERRAL TO RJS 08/11/87. 08/03/88: 7/31/87 MNP DISCUSSION W/J. CHARLES, NO INFO. TO BE RELEASED DUE TO PENDING LEGAL REFERRAL;8/3/87 MNP INSP. CLEANUP O.K., DISPOSAL REMAINS. 11/28/90: 11/28/90 MNP INSP. CONCRETE PIT GONE, NO MW'S INSTALLED. LETTER TO BE SENT TO NFG. 06/01/92: 6/1/92 LETTER TO NFG REQUESTING MW SAMPLING, RESPONSE BY 6/30/92. 06/28/93: 6/28/93 MNP & RNL DISCUSSION. NEED SAMPLE RESULTS FROM MW'S. CALL JOE BELLANTI OF NFG. 07/19/93: 7/19/93 RECEIVED MW SAMPLE RESULTS FROM 9/92. BTEX EXCEED NYSDEC STANDARDS. 07/20/93: 7/20/93 MNP & RNL DISCUSSION, REQUEST RESAMPLE OF MW'S. 7/20/93 MNP TELECON W/ JOE BELLANTI - NFG, HE AGREED TO RESAMPLE MW'S FOR FOR EPA METH. 8021 PLUS MTBE & DOH 310-13. 11/05/93: 11/5/93 MNP TELECON W/ JOE BELLANTI OF NFG. HE HAS MW SAMPLE RESULTS & WILL SEND COPY. 01/11/94: 1/11/94 MNP REVIEWED 9/29/93 MW SAMPLE RESULTS. MW 2 STILL HAS HIGH LEVELS OF VOC'S & SOME SEMI-VOLATILES EXCEEDING NYSDEC STANDARDS. 01/11/94: 1/11/94 MNP TELECON W/ JOE BELLANTI - NFG. DISCUSSED HIGH MW SAMPLE RESULTS. FURTHER INVESTIGATION NEEDED,

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SUGGESTED SITE ASSESSMENT USING SOIL-GAS SURVEY OR TEST PITS. HE AGREED & WILL SEND LETTER. 03/25/94: 3/25/94 MNP TELECON W/ JOE BELLANTI - NFG. HE OBTAINED 2 BIDS TO DO WORK. TO SELECT CONTRACTOR & NOTIFY US OF SCHEDULE. 03/28/94: 3/28/94 MNP TELECON W/ JOE BELLANTI - NFG. HE OBTAINED 2 BIDS TO DO WORK. TO SELECT CONTRACTOR & NOTIFY US OF SCHEDULE. 03/28/94: 3/28/94 MNP OFFICE MEETING W/ JOE BELLANTI - NFG. HE OBTAINED 2 BIDS TO DO WORK. TO SELECT CONTRACTOR & SUBMIT REMEDIATION PLAN BY 4/3/94. 03/30/94: 3/30/94 RECEIVED LETTER FROM JOE BELLANTI - NFG. WILL SELECT CONTRACTOR, TO SEND PROPOSAL FOR DEC REVIEW. EXPECT WORK TO START IN MAY '94. 10/12/94: 10/12/94 RECEIVED LETTER FROM CHARLES BURKE - NFG. EMPIRE SOILS TO DO SOIL GAS SURVEY 10/11/94 TO 10/12/94. 10/14/94: 10/14/94 MNP TELECON TO CHARLES BURKE - NFG (857-7686). NOT IN LEFT MESSAGE TO RETURN CALL. 10/14/94: 10/14/94 MNP TELECON W/ CHARLES BURKE - NFG (857-7686). SOIL GAS SURVEY COMPLETED 10/12/94.I REQUESTED COPY OF REPORT BY 11/1/94 W/ RECOMENDATIONS FOR INVESTIGATION OR REMEDIATION PLAN. 11/01/94: 11/1/94 CHARLES BURKE DROPPED OFF SOIL-GAS SURVEY W/ REMEDIATION RECOMMEDATIONS. 11/01/94: 11/1/94 MN P REVIEWED EMPIRE SOILS 10/31/94 SOIL-GAS SURVEY REPORT. HIGHEST CONTAMINATION AROUND MW2. NO POINTS DONE NORTH OR EAST OF MW2 TO DETERMINE SOURCE. READINGS OVER 10 PPM SOUTH OF MW2. 11/01/94: 11/1/94 MNP TELECON W/ CHARLES BURKE - NFG. SOIL-GAS SURVEY DID NOT LOCATE SOURCE OR IDENTIFY EXTENT OF CONTAMINATION. NFG PLAN TO EXCAVATE CONTAM. SOIL OK, BUT ADDITIONAL MW NEEDED SOUTH OF MW2. 12/19/94: 12/19/94 MNP REVIEWED NFG 12/5/94 LETTER & EMPIRE SOILS 11/23/94 WORK PROPOSAL. PLAN TO EXCAVATE CONTAM. SOIL SOUTH OF FORMER PIT & SAMPLE FOR STARS. THEN INSTALL MW'S. 12/19/94: 12/19/94 MNP TELECON W/ CHARLES BURKE - NFG. CLEANUP PROPOSAL SATISFACTORY. I REQUESTED ADVANCE NOTIFICATION & INSPECTION OF EXCAVATION BEFORE BACKFILLING. EXPECT TO DO IN JANUARY 1995. 02/10/95: 2/10/95 MNP INSP & MEETING W/ NFG & EMPIRE SOILS. CONTAM. SOIL & WATER REMOVED FROM EXCAV., CONTAM. SOIL & PRODUCT IN BOTTOM & SIDES, TO CONTINUE CLEANUP & SAMPLE BOTTOM. SEE NOTES, SKETCH & PICTURES. 02/14/95: 2/14/95 MNP INSP & MEETING W/ NFG & EMPIRE SOILS. CONTAM. SOIL & WATER REMOVED FROM EXCAV., CONTAM. SOIL & PRODUCT IN BOTTOM & SIDES, TO SAMPLE BOTTOM & SIDES. FOUND ANOTHER SEPARATOR PIT, SEE PICTURE. 06/13/95: FG JFO SITE VISIT. EXCAVATION FILLED IN. GT 2000YDS SOIL STAGED ON SITE. NO FURTHER WORK COMPLETED. 07/24/95: NATIONAL FUEL SUBMITTED 6/13/95 REPORT ON SITE INVESTIGATION. CONTAM EXISTS ON SITE. REMEDIAL PROPOSAL WILL DETERMINE EXTENT OF CONTAMIN - TO BEGIN ON 7/31/95. 08/07/95: FG SITE VISIT 8/7/95. SOIL HAD BEEN REMOVED FROM SITE. INVESTIGATION BY RETEC WAS JUST BEGINNING. WORK TO CONTINUE THROUGH TOMORROW. 11/30/95 NATIONAL FUEL SAMPLING GROUNDWATER WELLS ON SITE TODAY. CHARLES BURKE CALLED. 6/14/96 CHARLIE BURKE CALLED. EROSION FROM RAIN IS MAKING PROBLEMS EVIDENT. POSSIBLY HYDROGEN CYANIDE FROM MANUFACTURED GAS PLANT. CONSULTANT WILL BE ON SIT 6/17/96. 6/17/96 FG SITE VISIT. FOUND EROSION IN DITCH AND MATERIAL LEACHING OUT. CHARLIE BURKE NOT ON SITE. WILL CONTACT. 7/5/96 RECD 7/2/96 QUARTERLY SAMPLING REPORT FOR MW'S 7,8& 10. RESULTS ARE ABOVE STARS IN MW'S 7 & 8. MW 10 RESULTS ARE BELOW STARS. 7/10/96 RECD REPORT ON NFG SITE INSPECTION OF EROSION EXPOSING BLUE STAINED SOIL FROM PURIFIER BOX RESIDUALS. NFG WILL INVESTIGATE & CHARACTERIZE CONTAMINATION. WILL SUBMIT A WORK PLAN IN A PRUDENT & TIMELY MANNER. 9/5/96 CHARLES BURKE, W/NATIONAL FUEL CALLED. HE SAID THAT HE WANTS TO DEAL W/PETRO PROBLEM ALONG W/FERROCYANIDE WASTE. HE WILL SUBMIT REPORT THAT INCLUDES STUDY OF AREA WIDE ISSUES, NOT SPECIFICALLY PETROLEUM. I TOLD HIM TO SUBMIT & WE WILL REVIEW. HE WILL SUBMIT BY 9/23/96. 10/23/96 FG RECD NATIONAL FUEL WORK PLAN FOR

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CYANIDE & OIL PROBLEM. PLAN WAS ADDRESSED TO MARTY DOSTER & ME. MR. DOSTER & I SPOKE TO CHARLIE BURKE ABOUT PLAN. MR. DOSTER WILL NOT ADDRESS ISSUE UNLESS NAT'L FUEL SIGNS A CONSENT ORDER. NATIONAL FUEL MUST STILL DEAL W/FG ON OIL SPILL PROBLEM REGARDLESS. CHARLES BURKE TO GET BACK TO DEC ON NEXT STEP. ADVISED NAT'L FUEL TO SAMPLE ALL WELLS, ANALYZE FOR HAZ CONSTITUENTS, INCLUDING REACTIVITY AND TO CHECK ALL DRAINAGE DITCHES FOR OTHER AREAS OF EROSION. TOLD MR. BURKE THAT HE MUST ADDRESS THE ISSUE OF ANOTHER POSSIBLE PIT IN THE AREA. THE CURRENT PLAN DOES NOT DO THIS. 10/24/96 MARTY DOSTER SENT LTR TO NATIONAL FUEL REITERATING MTG DISCUSSION, RECOMMENDING THAT NATIONAL FUEL CONTINUE TO WORK W/SPILLS. 1/17/97 FG MARTY DOSTER, GREG SUTTON, RETEC, & NATIONAL FUEL MET TO DISCUSS WORK ON SITE. NATIONAL FUEL WANTS TO DO A SITE WIDE ASSESSMENT TO ASSIST IN PREPARING A RBCA. THEY WILL ALSO INVESTIGATE THE CYANIDE BEARING WASTE IN THIS ASSESSMENT. THEY MAY DECIDE TO DO A VOLUNTARY AGREEMENT WITH DHWR. 3/7/97 LTR SENT TO NATL FUEL REQUESTING AN UPDATE ON THE STATUS OF THE ASSESSMENT THEY HAD PROPOSED DURING OUR 1/17/97 MTG. RESPONSE DUE 3/24/97. 3/21/97 NATIONAL FUEL SENT A LTR STATING THAT THEY WILL SUBMIT A REVISED REMEDIAL PROPOSAL BY THE SECOND WEEK IN APRIL. 10/10/97 CHARLIE BURKE WITH NATIONAL FUEL CALLED. HE SAID THAT HAZARDOUS MATERIAL HAS BEEN DISCOVERED AT THE MINERAL SPRINGS SITE. PURIFIER BOX WASTE MATERIAL WITH A PH OF 1.2 AND HAZARDOUS LEAD LEVELS, TCLP = 9.6PPM WERE FOUND NEAR THE ELECTRICAL TOWERS ON THE SOUTH SIDE OF THE PROPERTY RIGHT AT THE FENCE LINE. THEY BELIEVE THAT 45 CU YDS OF THE BLUE CORROSIVE PURIFIER BOX WASTE IS ON SITE. THEY DON'T HAVE A HANDLE ON THE EXTENT OF THE LEAD CONTAMINATION. THE CONTAMINATION IS BOTH SURFACE AND SUBSURFACE AND THE ENTIRE PROPERTY IS FENCED. THE REPORT OF THEIR FINDINGS WILL BE READY BY THE END OF OCTOBER. THEY DO NOT BELIEVE THAT ANY OF THE WASTE IS LEACHING OFF SITE. MR. BURKE IS AVAILABLE FOR AN ONSITE MTG ON MONDAY TUESDAY OR WEDNESDAY. SOME PCB'S WERE FOUND AT THE OIL WATER SEPARATOR PIT AT A LEVEL OF 1PPM. NATIONAL FUEL IS ALSO IN THE PROCESS OF PUTTING TOGETHER AN INTERIM REMEDIATION PLAN. 10/17/97 FG, CAMERON O'CONNOR - NYSDOH, SITE INSPECTION OF HAZARDOUS AREA AT THE SOUTHWEST CORNER OF THE SITE NEAR A NIMO ELECTRIC TOWER. NO APPARENT EROSION. NIMO EXCAVATED AROUND THE BASE OF THE TOWER. THE MATERIAL LOOKED SLIGHTLY BLUE. THERE WAS NO DEAD VEGETATION OFF SITE OR RIGHT AT THE FENCE OR ON THE SITE. THE AREA IS A HISTORICAL FILL AREA ADJACENT TO THE RAILROAD LINE. THERE ARE HOMES NORTHWEST OF THE IMPACTED AREA. NO ACCESS IS POSSIBLE. WE LOOKED AT THE ERODING AREA AT THE NORTH EAST FENCE LINE WHICH DISCHARGES TO THE DITCH. EROSION IS APPARENT HERE. BLUE MATERIAL CAN BE SEEN. 11/25/97 MTG WITH NATIONAL FUEL, C.BURKE T.ALEXANDER,RETEC, COULOMBE, DEC, P.BUECHI M.DOSTER G.SUTTON FG, DOH, C.O'CONNOR. INACTIVE HAZARDOUS WASTE SITE PROGRAM TO TAKE OVER SITE. VOLUNTARY AGREEMENT TO BE SIGNED BY NATIONAL FUEL. NO FURTHER WORK REQUIRED BY SPILLS. SITE CAN BE CLOSED.

Remarks: PUMPED OIL PRODUCT FROM OPEN CONCRETE PIT TO REAR OF PROPERTY, DISCHARGING ONTO GROUND WHICH RUNS TOWARDS CREEK

Material:

Site ID:	328492
Operable Unit ID:	908979
Operable Unit:	01
Material ID:	468754
Material Code:	1430A
Material Name:	PETROLEUM SOLVENTS
Case No.:	Not reported
Material FA:	Other

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Quantity:	0
Units:	Pounds
Recovered:	No
Resource Affected:	Not reported
Oxygenate:	False
Site ID:	328492
Operable Unit ID:	908979
Operable Unit:	01
Material ID:	468753
Material Code:	0066A
Material Name:	UNKNOWN PETROLEUM
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	100
Units:	Gallons
Recovered:	100
Resource Affected:	Not reported
Oxygenate:	False

Tank Test:

Site ID:	Not reported
Spill Tank Test:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported
Leak Rate:	Not reported
Gross Fail:	Not reported
Modified By:	Not reported
Last Modified:	Not reported
Test Method:	Not reported

Click this hyperlink while viewing on your computer to access additional NY_SPILL: detail in the EDR Site Report.

NY Hist Spills:

Region of Spill:	9
Spill Number:	9211262
Investigator:	SAC
Caller Name:	Not reported
Caller Agency:	Not reported
Caller Phone:	Not reported
Notifier Name:	Not reported
Notifier Agency:	Not reported
Notifier Phone:	Not reported
Spill Date/Time:	12/29/1992 13:30
Reported to Dept Date/Time:	12/29/92 15:10
SWIS:	14
Spiller Name:	NATIONAL FUEL GAS
Spiller Contact:	Not reported
Spiller Phone:	Not reported
Spiller Address:	Not reported
Spiller City,St,Zip:	BUFFALO, NY
Spill Cause:	Equipment Failure
Reported to Dept:	On Land
Water Affected:	Not reported

NFG SERVICE CTR (Continued) **S102173734**

Spill Source: 01
Spill Notifier: Responsible Party
PBS Number: Not reported
Cleanup Ceased: 12/29/92
Cleanup Meets Std: True
Last Inspection: / /
Recommended Penalty: Penalty Not Recommended
Spiller Cleanup Dt: / /
Enforcement Date: / /
Invstgn Complete: / /
UST Involvement: False
Spill Class: Possible release with minimal potential for fire or hazard or Known release with no damage. No DEC Response. No corrective action required.
Spill Closed Dt: 12/29/92
Corrective Action Plan Submitted: / /
Date Region Sent Summary to Central Office: / /
Date Spill Entered In Computer Data File: 12/31/92
Date Spill Entered In Computer Data File: Not reported
Update Date: 01/08/93
Is Updated: False

Tank:
PBS Number: Not reported
Tank Number: Not reported
Tank Size: Not reported
Test Method: Not reported
Leak Rate Failed Tank: Not reported
Gross Leak Rate: Not reported

Material:
Material Class Type: Petroleum
Quantity Spilled: 0
Unkonwn Quantity Spilled: True
Units: Not reported
Quantity Recovered: 0
Unkonwn Quantity Recovered: True
Material: WASTE OIL
Class Type: WASTE OIL
Times Material Entry In File: 9509
CAS Number: Not reported
Last Date: 19940927
DEC Remarks: 12/29/92: SAC/JOE BELLANTI, NFG/TELECON - SMALL SPILL; HAS BEEN CONTAINED WITHSPEEDY-DRI, PICKED UP AND PROPERLY DISPOSED. NO FURTHER ACTION NECESSARY.
Remark: HYDRAULIC HOSE SPLIT ON TRUCK. SPEEDY-DRI APPLIED AND PICKED UP.

Region of Spill: 9
Spill Number: 9975292
Investigator: MJS
Caller Name: Not reported
Caller Agency: Not reported
Caller Phone: Not reported
Notifier Name: Not reported
Notifier Agency: Not reported
Notifier Phone: Not reported
Spill Date/Time: 07/16/1999 09:00
Reported to Dept Date/Time: 07/16/99 11:25

NFG SERVICE CTR (Continued) **S102173734**

SWIS:	14
Spiller Name:	NATIONAL FUEL GAS
Spiller Contact:	CHARLIE BURKE
Spiller Phone:	(716) 827-2359
Spiller Phone:	( ) -
Spiller Address:	365 MINERAL SPRINGS ROAD
Spiller City,St,Zip:	BUFFALO, NY 14210-
Spill Cause:	Equipment Failure
Reported to Dept:	On Land
Water Affected:	Not reported
Spill Source:	01
Spill Notifier:	Responsible Party
PBS Number:	Not reported
Cleanup Ceased:	/ /
Cleanup Meets Std:	True
Last Inspection:	07/16/99
Recommended Penalty:	Penalty Not Recommended
Spiller Cleanup Dt:	/ /
Enforcement Date:	/ /
Invstgn Complete:	/ /
UST Involvement:	False
Spill Class:	Known release with minimal potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt:	09/18/00
Corrective Action Plan Submitted:	/ /
Date Region Sent Summary to Central Office:	/ /
Date Spill Entered In Computer Data File:	07/16/99
Date Spill Entered In Computer Data File:	11:28
Update Date:	09/29/00
Is Updated:	False

Tank:

PBS Number:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported
Leak Rate Failed Tank:	Not reported
Gross Leak Rate:	Not reported

Material:

Material Class Type:	Petroleum
Quantity Spilled:	0
Unkonwn Quantity Spilled:	True
Units:	Gallons
Quantity Recovered:	0
Unkonwn Quantity Recovered:	True
Material:	DIESEL
Class Type:	DIESEL
Times Material Entry In File:	10625
CAS Number:	Not reported
Last Date:	19940728

DEC Remarks: 07/16/99: MJS SITE INSPECTION, MET MR. BURKE. THEY ARE INSTALLING SPILL BUCKETS UNDER DISPENSERS AND FOUND CONTAMINATED SOILS UNDER 12 THICK CONCRETE PAD. CONTAMINATED GRAVEL REMOVED BY HAND AND SET ASIDE. EXTENT OF CONTAMINATION UNDETERMINED. REMOVAL OF CONCRETE PAD AND DISPENSER AREA NOT PRACTICAL FOR AMOUNT OF CONTAMINATION THAT APPARENTLY REMAINS. MJS SUGGESTED PERFORMING THREE BORINGS AROUND TANK AND DISPENSER AREA AND OBTAINING SOIL SAMPLES FROM BORINGS AND FROM CONTAMINATED AREA FOR POSSIBLE EXPOSURE ASSESSMENT. HE STATED HE WOULD

NFG SERVICE CTR (Continued) **S102173734**

CONTACT MAXIM FOR SOIL BORINGS. 07/19/99: MJS TELECON WITH MR BURKE. MAXIM TO BE ON SITE TOMORROW TO INSTALL THREE BORINGS AND TAKE SAMPLES. 07/20/99: MJS TELECON WITH MR BURKE. SOIL BORINGS PERFORMED TODAY BY MAXIM AND SOIL SAMPLES SUBMITTED FOR ANALYSIS. HE STATED THAT THEY FOUND SOME ODORS IN ONE OF THE BORINGS. MJS STATED THAT IF SAMPLE RESULTS INDICATE CONTAMINATION, WE MAY REQUIRE FURTHER DELINEATION FOR THE EXPOSURE ASSESSMENT. HE WILL FORWARD SAMPLE RESULTS. 07/22/99: MJS RECEIVED FAX OF SAMPLE RESULTS FOR AREA UNDER DISPENSER AND THREE SOIL BORINGS. BORING TO NORTH OF DISPENSER INDICATES VERY HIGH CONTAMINANT LEVELS FOR SEMI-VOLATILES. LEVELS DO NOT MEET EXPOSURE ASSESSMENTVALUES. FURTHER WORK WILL BE REQUIRED DELINEATION, EXCAVATION, REMEDIATION). MJS TELECON TO CHARLIE BURKE AND SET UP MEETING FOR TOMORROW AT 0930 HRS. 07/23/99: MJS AND RNL SITE INSPECTION, MET WITH MR BURKE. DISCUSSED SAMPLE RESULTS.MR BURKE STATED THAT HE OBSERVED ALL SAMPLES TAKEN. SAMPLE THAT SHOWED HIGH LEVELS OF CONTAMINATION HAD NO ODORS AND PID METER READING WAS BACKGROUND. LAB STATED TO HIM THAT THEY HAD PROBLEMS WITH SAMPLE AND HAD TO ALTER THEIR PROCESS. IN LIGHT OF THIS, ALL PARTIES AGREED THAT RESULTS FOR THIS BORING LOCATION ARE QUESTIONABLE. MR BURKE AGREED TO EXCAVATE AREA OF THIS BORING FOR INSPECTION BY DEC AND WILL RESAMPLE. HE WILL ALSO OBTAIN SAMPLE OF SOIL BETWEEN THIS AREA AND SOURCE OF LEAK PIPINGAND CONDUIT TRENCH). IF THESE SAMPLE RESULTS DO NOT INDICATE ELEVATED CONTAMINANT LEVELS, WE WILL CLOSE FILE LEAVING VERY LIMITED AMOUNT OF DIESEL CONTAMINATED SOIL UNDERNEATH CONCRETE PAD. 07/28/99: MJS RECEIVED FAX OF SAMPLE RESULTS FOR SAMPLEOBTAINED FROM PIPING TRENCH. ALL RESULTS NON-DETECT. MJS TELECON WITH MR BURKE AND EXPLAINED THAT RESULTS INDICATE NO CONTAMNATION IN THIS AREA. HE IS STILL COORDINATING EXCAVATION IN GRASS AREA WHERE PREVIOUS BORING SAMPLE SUGGESTS CONTAMINATION.08/10/99: MJS RECEIVED MESSAGE FROM TANYA ALEXANDER FROM NFG THAT THEY WILL BE EXCAVATING IN GRASS AREA TOMORROW MORNING. 08/11/99: MJS SITE INSPECTION, MET WITH TANYA ALEXANDER, CHARLIE BURKE ON VACATION. EXCAVATED TRENCH DIRECTLY OVER PREVIOUSSOIL BORING TO APPROX. SEVEN FEET BELOW GRADE. FOUND FILL CONSISTING OF BRICKS, ASPHALT, COAL AND SLAG. THE ASPHALT AND COAL CONTENT IN LAST SAMPLE IS THE PROBABLE CAUSE FOR THE ELEVATED SAMPLE RESULTS FOUND IN BORING SAMPLE. MJS NOTED NO DIESEL OR GASOLINE ODORS. HARD GRAY CLAY FOUND BELOW THE FILL. OBTAINED SAMPLE OF FILL MATERIAL AND SAMPLE OF CLAY. MJS TO ADVISE MRS ALEXANDER REGARDING REQUIRED ANALYSIS. ALSO FOUND CLUMPS OF BLUE MATERIAL. MRS ALEXANDER STATED THAT IT IS FERRIC CYANIDE AND THIS IS WHAT OUR HAZ-WASTE DIVISION IS CURRENTLY INVOLVED WITH AT THIS SITE. MJS OBTAINED SAMPLE OF THE MATERIAL. 08/23/99: MJS TELECON WITH CHARLIE BURKE. HE SUBMITTED SAMPLES FOR ANALYSIS AND IS WAITING FOR RESULTS. 08/26/99: MJSRECEIVED FAX OF SAMPLE RESULTS FOR CLAY SAMPLE. 520 PPB TOTAL SVOC CONTAMINANTS ALL COMPOUNDS WITHIN ALTERNATIVE SOIL GUIDANCE VALUES). 09/01/99: MJS TELECON WITH MR BURKE AND HE WILL FAX RESULTS FROM SAMPLE OF FILL MATERIAL ABOVE CLAY. HE STATED THAT RESULTS ARE SIMILAR TO THOSE FROM SAMPLE FROM SOIL BORING IN THIS AREA. RECEIVED FAX OF SAMPLE RESULTS. METHOD 8270 RESULTS ARE ELEVATED AND SIMILAR TO SOIL BORING RESULTS. NOTE: BOTH SOIL SAMPLES WITH ELEVATED SEMI-VOLATILE RESULTS EXHIBITED NO PETROLEUM ODOR AND SAMPLE FROM BORING HAD PID METER READING OF 0 . PID READING NOT TAKEN ON SECOND SAMPLE TAKEN ON 8/11/99. ELEVATED CONCENTRATIONS OF SEMI-VOLATILES ARE DUE TO ASPHALT, COAL, CINDERS, ETC FOUND IN FILL AND NOT FROM DIESEL FUEL CONTAMINATION. MJS DISCUSS SITE WITH RNL AND AGREED THAT SITE CAN BE MADE INACTIVE. MJS REVIEW FILE. NEED DISPOSAL DOCUMENTATION FOR EXCAVATED SOILS TO COMPLETE FILE. MJS NOTIFIED MR BURKE AND HE WILL HAVE SOIL DISPOSED. MJS DRAFTED LETTER REGARDING SOIL DISPOSAL. 10/13/99: MJS RECEIVED LETTER AND BILL OF LADING FROM MR BURKE. NO FURTHER ACTION REQUIRED. MJS FILE INACTIVE 06/22/00: MJS NOTIFIED BY GREG SUTTON NYSDEC) THAT NFG FOUND OIL IN TRENCH FOR NEW GAS LINE IMMEDIATELY ADJACENT TO CONCRETE PAD. HE IS INVOLVED WITH HAZ-WASTE REMEDIATION ON SITE. OIL APPEARS TO BE WEEPING INTO TRENCH FROM DIRECTION OF FUEL ISLAND AND SEEMS TO BE LOCKED UP IN GRAVEL/SOIL UNDER

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CONCRETE PAD. THEY APPLIED SORBENT PADS TO WATER IN TRENCH TO COLLECT ANY FREE PRODUCT. 06/22/00: MJS RE-OPEN FILE. 06/26/00: MJS DISCUSSED SITUATION WITH KEVIN GLASER NYSDEC). THEY PROPOSE LIFTING CONCRETE PAD AND EXCAVATING IMPACTED GRAVEL. MJS TO MEET WITH MR GLASER ON SITE TOMORROW AT 0900HRS. 06/27/00: MJS SITE INSPECTION, MET CHARLIE BURKE NFG) AND DAN SHEARER WITH THERMO RETEC CONSULTANT). SOME OIL CONTAMINATION ON WATER IN TRENCH. NO NEW PRODUCT SINCE SORBENT PADS APPLIED AND REMOVED. CONSULTANT WORKING ON HAZ-WASTE PROJECTWILL REMOVE CONCRETE PAD WHEN THEY HAVE A BREAK IN THEIR CURRENT OPERATIONS AND EXCAVATE GRAVEL/SOILS. 08/14/00: MJS TELECON FROM DAN SCHEARER. THEY ARE STARTING WORK TOMORROW. MJS SPOKE WITH GREG SUTTON HAZ-WASTE) AND HE WILL BE ON SITE TOMORROW. 08/15/00: MJS TELECON WITH DAN SCHEARER. THEY ARE SCEENING CONTAMINATED SOILS AND STAGING FOR DISPOSAL. EXCAVATION IS CURRENTLY 10X20X3 AND IS REPORTEDLY CLEANING UP WELL. THEY WILL OBTAIN COMPOSITE SAMPLES FROM BOTTOM AND WALLS 8021/8270).08/17/00: MJS TELECON WITH DAN SCHERER. HE REPORTS THAT CONTAMINATION FOUND ALONG SEWER LINE AND UNDER DISPENSER. THEY REQUESTED AN INSPECTION. MJS SITE INSPECTION, MET WITH KEVIN GLASER NYSDEC), CHARLIE BURKE NFG) AND DAN SCHEARER THERMO RETEC). SOILS UNDER CONCRETE PAD REMOVED AND STAGED ON SITE FOR DISPOSAL. CONTAMINATION APPEARS TO HAVE FOLLOWED 6 PVC SEWER LINE TRENCH. THEY CANNOT FOLLOW CONTAMINATION ANY MORE AS NATURAL GAS LINE RUNS OVER TOP. WHEN TIME ALLOWSTHEY WILL JUMP TO OTHER SIDE OF GAS LINE AND CONTINUE REMOVAL OF SOILS FROM AROUND SEWER LINE. SEE SKETCH) ALSO, THEY WILL PACK EXTERIOR OF SEWER LINE WITH BENTONITE TO PREVENT MIGRATION OF OIL BACK INTO MAIN EXCAVATION. SOME CONTAMINATED STONE ANDSOILS FOUND TO RUN UNDER DISPENSER. THEY WILL HAND DIG AS MUCH CONTAMINATED MATERIAL AS POSSIBLE. SOIL SAMPLE RESULTS FROM 8/99 INDICATE THAT CONTAMINATION DOES NOT RUN ON OTHER SIDE OF DISPENSER. DECISION MADE THAT CONCRETE PAD ON OTHER SIDE OF DISPENSER DOES NOT NEED REMOVAL. MJS TO REINSPECT LATER TODAY OR TOMORROW. 08/18/00: MJS SITE INPSECTION, MET KEVIN GLASER, CHARLIE BURKE/SLC/THERMORETEC. MAIN EXCAVATION UNDER CONCRETE PADS COMPLETE AND PARTIALLY BACKFILLED. THEY ARE EXCAVATING ONOTHER SIDE OF NATURAL GAS LINE, FREE PRODUCT FOUND IN 6 PVC SEWER TRENCH BACKFILL. 6 PVC CONNECTS TO 36 CONCRETE SEWER LINE SEE SKETCH), CONCERN IS THAT CONTAMINATION MIGRATED TO BACKFILL FOR 36 LINE. NFG EXCAVATED AROUND TIE-IN ANDFOUND THAT 36 CONCRETE LINE BACKFILLED WITH PACKED CLAY AND APPEARS TO HAVE PREVENTED MIGRATION OF OIL ALONG 36 MAIN SEWER LINE, ALSO, TRENCH FOUND TO INTERSECT 6 CLAY TILE LINE. SEE SKETCH). PID READINGS ON BACKFILL AROUND CLAY TILE FOUND TO BEAPPROX 20 PPM ON UPHILL SIDE AND APPROX 200 PPM ON DOWNHILL SIDE. APPEARS THAT OIL MIGRATED IN BACKFILL TO SOME DEGREE ON DOWNHILL SIDE. WORK TO CONTINUE ON MONDAY 8/21. 08/21/00: MJS SITE INSPECTION, MET KEVIN GLASER, CHARLIE BURKE/SLC/THERMO RETEC. DECISION TO EXCAVATE SOILS FROM DOWNHILL SIDE OF CLAY TILE LINE. NFG EXCAVATED LATERALLY APPROX SIX FEET OF CLAY TILE. PID READINGS REDUCED FROM APPR0X 200 PPM TO 29.1 PPM. MJS REQUESTED COMPOSITE SAMPLE FROM MAIN TRENCH FOR 6 PVC LINEAND GRAB SAMPLE FROM BACKFILL FOR 6 CLAY TILE AT EXCAVATION ENDPOINT. THEY WILL RUN SAMPLES VIA TCLP METHODOLOGY AND RESULTS DUE IN APPROX ONE WEEK. 08/29/00: MJS RECEIVED FAX OF TCLP ANALYTICAL RESULTS FOR ALL SAMPLES. ALL COMPOUNDS NON-DETECTON TCLP 8270 RESULTS. SAME FOR VOLATILES TCLP 8260) EXCEPT NAPTHALENE DETECTED AT LOW LEVELS IN ALL FOUR SAMPLES. 08/30/00: MJS TELECON WITH DAN SCHEARER AND ADVISED HIM THAT NO FURTHER WORK REQUIRED. NEED DISPOSAL DOCUMENTATION FOR FILE CLOSURE. 09/18/00: MJS RECEIVED 9/6) DISPOSAL DOCUMENTATION FOR CONTAMINATED SOILS. 146.74 TONS DISPOSED AT CHAFFEE LANDFILL. NO FURTHER ACTION REQUIRED. MJS CLOSE FILE. SENT CLOSURE LETTER TO CHARLIE BURKE.

Remark: WHILE REPLACING LINES AT FUEL ISLAND, ENCOUNTERED CONTAMINATED SOIL WHICH APPEARS TO BE THE RESULT OF A LOOSE FITTING.

Region of Spill: 9

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Spill Number:	8702469
Investigator:	MNP
Caller Name:	Not reported
Caller Agency:	Not reported
Caller Phone:	Not reported
Notifier Name:	Not reported
Notifier Agency:	Not reported
Notifier Phone:	Not reported
Spill Date/Time:	06/23/1987 12:00
Reported to Dept Date/Time:	06/25/87 16:20
SWIS:	14
Spiller Name:	NATIONAL FUEL GAS
Spiller Contact:	Not reported
Spiller Phone:	(716) 857-6920
Spiller Address:	10 LAFAYETTE SQUARE
Spiller City,St,Zip:	BUFFALO, NY 14203
Spill Cause:	Deliberate
Reported to Dept:	On Land
Water Affected:	BUFFALO RIVER
Spill Source:	01
Spill Notifier:	Responsible Party
PBS Number:	Not reported
Cleanup Ceased:	/ /
Cleanup Meets Std:	False
Last Inspection:	06/17/96
Recommended Penalty:	Penalty Recommended
Spiller Cleanup Dt:	/ /
Enforcement Date:	/ /
Invstgn Complete:	/ /
UST Involvement:	False
Spill Class:	Known release that creates potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt:	11/25/97
Corrective Action Plan Submitted:	/ /
Date Region Sent Summary to Central Office:	09/27/89
Date Spill Entered In Computer Data File:	07/02/87
Date Spill Entered In Computer Data File:	Not reported
Update Date:	04/12/01
Is Updated:	False

Tank:

PBS Number:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported
Leak Rate Failed Tank:	Not reported
Gross Leak Rate:	Not reported

Material:

Material Class Type:	Petroleum
Quantity Spilled:	100
Unkonwn Quantity Spilled:	False
Units:	Gallons
Quantity Recovered:	100
Unkonwn Quantity Recovered:	False
Material:	UNKNOWN PETROLEUM
Class Type:	UNKNOWN PETROLEUM
Times Material Entry In File:	16414

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CAS Number: Not reported
Last Date: 19940929
Material Class Type: Hazardous Material
Quantity Spilled: 0
Unkonwn Quantity Spilled: False
Units: Pounds
Quantity Recovered: 0
Unkonwn Quantity Recovered: False
Material: PETROLEUM SOLVENTS
Class Type: PETROLEUM SOLVENTS
Times Material Entry In File: 5
CAS Number: Not reported
Last Date: Not reported
DEC Remarks: / / : 7/31/87 TELECON W/BALSOM, E E, STILL WAITING FOR ANALYSIS FOR DISPOSAL, SHE WAS ON SITE DURING EXCAVATION, AREA GRADED;NEEDS INSP. / / : SAMPLE RESULTS ON MATERIAL SUBMITTED 07/06/87 TO AES. / / : 7/24/87 RECEIVED SAMPLE RESULTS FROM AES, LUB. OIL IN ALL 3 SAMPLES;7/30/87 TELECON W/MILL, N.M., SOIL REMOVED ON SITE. 08/11/87: LEGAL REFERRAL TO RJS 08/11/87. 08/03/88: 7/31/87 MNP DISCUSSION W/J. CHARLES, NO INFO. TO BE RELEASED DUE TO PENDING LEGAL REFERRAL;8/3/87 MNP INSP. CLEANUP O.K., DISPOSAL REMAINS. 11/28/90: 11/28/90 MNP INSP. CONCRETE PIT GONE, NO MW S INSTALLED. LETTER TO BE SENT TO NFG. 06/01/92: 6/1/92 LETTER TO NFG REQUESTING MW SAMPLING, RESPONSE BY 6/30/92. 06/28/93: 6/28/93 MNP RNL DISCUSSION. NEED SAMPLE RESULTS FROM MW S. CALL JOE BELLANTI OF NFG. 07/19/93: 7/19/93 RECEIVED MW SAMPLE RESULTS FROM 9/92. BTEX EXCEED NYSDEC STANDARDS. 07/20/93: 7/20/93 MNP RNL DISCUSSION, REQUEST RESAMPLE OF MW S. 7/20/93 MNP TELECON W/ JOE BELLANTI - NFG, HE AGREED TO RESAMPLE MW S FOR FOR EPA METH. 8021 PLUS MTBE DOH 310-13. 11/05/93: 11/5/93 MNP TELECON W/ JOE BELLANTI OF NFG. HE HAS MW SAMPLE RESULTS WILL SEND COPY. 01/11/94: 1/11/94 MNP REVIEWED 9/29/93 MW SAMPLE RESULTS. MW 2 STILL HAS HIGH LEVELS OF VOC S SOME SEMI-VOLATILES EXCEEDING NYSDEC STANDARDS. 01/11/94: 1/11/94 MNP TELECON W/ JOE BELLANTI - NFG. DISCUSSED HIGH MW SAMPLE RESULTS. FURTHER INVESTIGATION NEEDED, SUGGESTED SITE ASSESSMENT USING SOIL-GAS SURVEY OR TEST PITS. HE AGREED WILL SEND LETTER. 03/25/94: 3/25/94 MNP TELECON W/ JOE BELLANTI - NFG. HE OBTAINED 2 BIDS TO DO WORK. TO SELECT CONTRACTOR NOTIFY US OF SCHEDULE. 03/28/94: 3/28/94 MNP TELECON W/ JOE BELLANTI -NFG. HE OBTAINED 2 BIDS TO DO WORK. TO SELECT CONTRACTOR NOTIFY US OF SCHEDULE. 03/28/94: 3/28/94 MNP OFFICE MEETING W/ JOE BELLANTI - NFG. HE OBTAINED 2 BIDS TO DO WORK. TO SELECT CONTRACTOR SUBMIT REMEDIATION PLAN BY 4/3/94. 03/30/94:3/30/94 RECEIVED LETTER FROM JOE BELLANTI - NFG. WILL SELECT CONTRACTOR, TO SEND PROPOSAL FOR DEC REVIEW. EXPECT WORK TO START IN MAY 94. 10/12/94: 10/12/94 RECEIVED LETTER FROM CHARLES BURKE - NFG. EMPIRE SOILS TO DO SOIL GAS SURVEY 10/11/94 TO 10/12/94. 10/14/94: 10/14/94 MNP TELECON TO CHARLES BURKE - NFG 857-7686). NOT IN LEFT MESSAGE TO RETURN CALL. 10/14/94: 10/14/94 MNP TELECON W/ CHARLES BURKE - NFG 857-7686). SOIL GAS SURVEY COMPLETED 10/12/94.I REQUESTED COPY OF REPORTBY 11/1/94 W/ RECOMENDATIONS FOR INVESTIGATION OR REMEDIATION PLAN. 11/01/94: 11/1/94 CHARLES BURKE DROPPED OFF SOIL-GAS SURVEY W/ REMEDIATION RECOMMEDATIONS. 11/01/94: 11/1/94 MN P REVIEWED EMPIRE SOILS 10/31/94 SOIL-GAS SURVEY REPORT. HIGHEST CONTAMINATION AROUND MW2. NO POINTS DONE NORTH OR EAST OF MW2 TO DETERMINE SOURCE. READINGS OVER 10 PPM SOUTH OF MW2. 11/01/94: 11/1/94 MNP TELECON W/ CHARLES BURKE - NFG. SOIL-GAS SURVEY DID NOT LOCATE SOURCE OR IDENTIFY EXTENT OF CONTAMINATION. NFG PLAN TO EXCAVATE CONTAM. SOIL OK, BUT ADDITIONAL MW NEEDED SOUTH OF MW2. 12/19/94: 12/19/94 MNP REVIEWED NFG 12/5/94 LETTER EMPIRE SOILS 11/23/94 WORK PROPOSAL. PLAN TO EXCAVATE CONTAM. SOIL SOUTH OF FORMER PIT SAMPLE FOR STARS. THEN INSTALL MW S. 12/19/94: 12/19/94 MNP TELECON W/ CHARLES BURKE - NFG. CLEANUP PROPOSAL SATISFACTORY. I REQUESTED ADVANCE NOTIFICATION INSPECTION OF EXCAVATION

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BEFORE BACKFILLING. EXPECT TO DO IN JANUARY 1995. 02/10/95: 2/10/95 MNP INSPMEETING W/ NFG EMPIRE SOILS. CONTAM. SOIL WATER REMOVED FROM EXCAV., CONTAM. SOIL PRODUCT IN BOTTOM SIDES, TO CONTINUE CLEANUP SAMPLE BOTTOM. SEE NOTES, SKETCH PICTURES. 02/14/95: 2/14/95 MNP INSP MEETING W/ NFG EMPIRE SOILS. CONTAM. SOIL WATER REMOVED FROM EXCAV., CONTAM. SOIL PRODUCT IN BOTTOM SIDES, TO SAMPLE BOTTOM SIDES. FOUND ANOTHER SEPARATOR PIT, SEE PICTURE. 06/13/95: FG JFO SITE VISIT. EXCAVATION FILLED IN. GT 2000YDS SOIL STAGED ON SITE. NO FURTHER WORK COMPLETED. 07/24/95: NATIONAL FUEL SUBMITTED 6/13/95 REPORT ON SITE INVESTIGATION. CONTAM EXISTS ON SITE. REMEDIAL PROPOSAL WILL DETERMINE EXTENT OF CONTAMIN - TO BEGIN ON 7/31/95. 08/07/95: FG SITE VISIT 8/7/95. SOIL HAD BEEN REMOVED FROMSITE. INVESTIGATION BY RETEC WAS JUST BEGINNING. WORK TO CONTINUE THROUGH TOMORROW. 11/30/95 NATIONAL FUEL SAMPLING GROUNDWATER WELLS ON SITE TODAY. CHARLES BURKE CALLED. 6/14/96 CHARLIE BURKE CALLED. EROSION FROM RAIN IS MAKING PROBLEMS EVIDENT. POSSIBLY HYDROGEN CYANIDE FROM MANUFACTURED GAS PLANT. CONSULTANT WILL BE ON SIT 6/17/96. 6/17/96 FG SITE VISIT. FOUND EROSION IN DITCH AND MATERIAL LEACHING OUT. CHARLIE BURKE NOT ON SITE. WILL CONTACT. 7/5/96 RECD 7/2/96 QUARTERLY SAMPLING REPORT FOR MW S 7,8 10. RESULTS ARE ABOVE STARS IN MW S 7 8. MW 10 RESULTS ARE BELOW STARS. 7/10/96 RECD REPORT ON NFG SITE INSPECTION OF EROSION EXPOSING BLUE STAINED SOIL FROM PURIFIER BOX RESIDUALS. NFG WILL INVESTIGATE CHARACTERIZE CONTAMINATION. WILL SUBMIT A WORK PLAN IN A PRUDENT TIMELY MANNER. 9/5/96 CHARLES BURKE, W/NATIONAL FUEL CALLED. HE SAID THAT HE WANTS TO DEAL W/PETRO PROBLEM ALONG W/FERROCYANIDE WASTE. HE WILL SUBMIT REPORT THAT INCLUDES STUDY OF AREAWIDE ISSUES, NOT SPECIFICALLY PETROLEUM. I TOLD HIM TO SUBMIT WE WILL REVIEW. HE WILL SUBMIT BY 9/23/96. 10/23/96 FG RECD NATIONAL FUEL WORK PLAN FOR CYANIDE OIL PROBLEM. PLAN WAS ADDRESSED TO MARTY DOSTER ME. MR. DOSTER I SPOKE TO CHARLIE BURKE ABOUT PLAN. MR. DOSTER WILL NOT ADDRESS ISSUE UNLESS NAT L FUEL SIGNS A CONSENT ORDER. NATIONAL FUEL MUST STILL DEAL W/FG ON OIL SPILL PROBLEM REGARDLESS. CHARLES BURKE TO GET BACK TO DEC ON NEXT STEP. ADVISED NAT L FUEL TO SAMPLE ALLWELLS, ANALYZE FOR HAZ CONSTITUENTS, INCLUDING REACTIVITY AND TO CHECK ALL DRAINAGE DITCHES FOR OTHER AREAS OF EROSION. TOLD MR. BURKE THAT HE MUST ADDRESS THE ISSUE OF ANOTHER POSSIBLE PIT IN THE AREA. THE CURRENT PLAN DOES NOT DO THIS. 10/24/96 MARTY DOSTER SENT LTR TO NATIONAL FUEL REITERATING MTG DISCUSSION, RECOMMENDING THAT NATIONAL FUEL CONTINUE TO WORK W/SPILLS. 1/17/97 FG MARTY DOSTER, GREG SUTTON, RETEC, NATIONAL FUEL MET TO DISCUSS WORK ON SITE. NATIONAL FUEL WANTS TODO A SITE WIDE ASSESSMENT TO ASSIST IN PREPARING A RBCA. THEY WILL ALSO INVESTIGATE THE CYANIDE BEARING WASTE IN THIS ASSESSMENT. THEY MAY DECIDE TO DO A VOLUNTARY AGREEMENT WITH DHWR. 3/7/97 LTR SENT TO NATL FUEL REQUESTING AN UPDATE ON THE STATUS OF THE ASSESSMENT THEY HAD PROPOSED DURING OUR 1/17/97 MTG. RESPONSE DUE 3/24/97. 3/21/97 NATIONAL FUEL SENT A LTR STATING THAT THEY WILL SUBMIT A REVISED REMEDIAL PROPOSAL BY THE SECOND WEEK IN APRIL. 10/10/97 CHARLIE BURKE WITH NATIONAL FUEL CALLED. HE SAID THAT HAZARDOUS MATERIAL HAS BEEN DISCOVERED AT THE MINERAL SPRINGS SITE. PURIFIER BOX WASTE MATERIAL WITH A PH OF 1.2 AND HAZARDOUS LEAD LEVELS, TCLP = 9.6PPM WERE FOUND NEAR THE ELECTRICAL TOWERS ON THE SOUTH SIDE OF THE PROPERTY RIGHT AT THE FENCE LINE. THEY BELIEVE THAT 45 CU YDS OF THE BLUE CORROSIVE PURIFIER BOX WASTE IS ON SITE. THEY DON T HAVE A HANDLE ON THE EXTENT OF THE LEAD CONTAMINATION. THE CONTAMINATION IS BOTH SURFACE AND SUBSURFACE AND THE ENTIRE PROPERTY IS FENCED. THE REPORT OF THEIR FINDINGS WILL BE READY BY THE END OF OCTOBER. THEY DO NOT BELIEVE THAT ANY OF THE WASTE IS LEACHING OFF SITE. MR. BURKE IS AVAILABLE FOR AN ONSITE MTG ON MONDAY TUESDAY OR WEDNESDAY. SOME PCB S WERE FOUND ATTHE OIL WATER SEPARATOR PIT AT A LEVEL OF 1PPM. NATIONAL FUEL IS ALSO IN THE PROCESS OF PUTTING TOGETHER AN INTERIM REMEDIATION PLAN. 10/17/97 FG, CAMERON O CONNOR - NYSDOH, SITE INSPECTION OF HAZARDOUS AREA AT THE SOUTHWEST CORNER OF THE SITENEAR A NIMO ELECTRIC TOWER. NO APPARENT EROSION. NIMO EXCAVATED AROUND THE BASE OF THE

NFG SERVICE CTR (Continued) **S102173734**

TOWER. THE MATERIAL LOOKED SLIGHTLY BLUE. THERE WAS NO DEAD VEGETATION OFF SITE OR RIGHT AT THE FENCE OR ON THE SITE. THE AREA IS A HISTORICAL FILL AREA ADJACENT TO THE RAILROAD LINE. THERE ARE HOMES NORTHWEST OF THE IMPACTED AREA. NO ACCESS IS POSSIBLE. WE LOOKED AT THE ERODING AREA AT THE NORTH EAST FENCE LINE WHICH DISCHARGES TO THE DITCH. EROSION IS APPARENT HERE. BLUE MATERIAL CAN BE SEEN. 11/25/97 MTG WITH NATIONAL FUEL, C.BURKE T.ALEXANDER,RETEC, COULOMBE, DEC, P.BUECHI M.DOSTER G.SUTTON FG, DOH, C.O CONNOR. INACTIVE HAZARDOUS WASTE SITE PROGRAM TO TAKE OVER SITE. VOLUNTARY AGREEMENT TO BE SIGNED BY NATIONAL FUEL. NO FURTHER WORKREQUIRED BY SPILLS. SITE CAN BE CLOSED.

Remark: PUMPED OIL PRODUCT FROM OPEN CONCRETE PIT TO REAR OF PROPERTY, DISCHARGING ONTO GROUND WHICH RUNS TOWARDS CREEK

Region of Spill:	9
Spill Number:	8709541
Investigator:	MF
Caller Name:	Not reported
Caller Agency:	Not reported
Caller Phone:	Not reported
Notifier Name:	Not reported
Notifier Agency:	Not reported
Notifier Phone:	Not reported
Spill Date/Time:	02/09/1988 17:30
Reported to Dept Date/Time:	02/10/88 09:10
SWIS:	14
Spiller Name:	NATIONAL FUEL GAS
Spiller Contact:	Not reported
Spiller Phone:	(716) 857-6920
Spiller Address:	10 LAYFAYTTE SQUARE
Spiller City,St,Zip:	BUFFALO, NY 14203
Spill Cause:	Human Error
Reported to Dept:	On Land
Water Affected:	Not reported
Spill Source:	01
Spill Notifier:	Responsible Party
PBS Number:	Not reported
Cleanup Ceased:	03/21/88
Cleanup Meets Std:	True
Last Inspection:	02/22/88
Recommended Penalty:	Penalty Not Recommended
Spiller Cleanup Dt:	/ /
Enforcement Date:	/ /
Invstgn Complete:	/ /
UST Involvement:	False
Spill Class:	Not reported
Spill Closed Dt:	03/21/88
Corrective Action Plan Submitted:	/ /
Date Region Sent Summary to Central Office:	/ /
Date Spill Entered In Computer Data File:	02/10/88
Date Spill Entered In Computer Data File:	Not reported
Update Date:	03/21/88
Is Updated:	False

Tank:

PBS Number:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported
Leak Rate Failed Tank:	Not reported

NFG SERVICE CTR (Continued) **S102173734**

Gross Leak Rate: Not reported

Material:
Material Class Type: Not reported
Quantity Spilled: Not reported
Unkonwn Quantity Spilled: Not reported
Units: Not reported
Quantity Recovered: Not reported
Unkonwn Quantity Recovered: Not reported
Material: Not reported
Class Type: Not reported
Times Material Entry In File: Not reported
CAS Number: Not reported
Last Date: Not reported
DEC Remarks: 02/10/88: MF SITE VISIT, CLEANUP DEBRIS TO BE PLACED IN DRUMS. WILL BE REMOVED BY FRONTIER CHEMICAL WHO HANDLES THEIR NAPTHA REMOVAL. RECEIPTS WILL BE SENT TO ME. DENNIS MILL PETE MUELLER ON SITE FOR N.F.G. 02/22/88: MF SITE VISIT, NAPTHA SPILLAREA CLEANED. NO FUTHER SITE VISITS NECESSARY. 03/21/88: MF RECEIVED DISPOSAL RECEIPTS. 09/29/95: This is additional information about material spilled from the translation of the old spill file: WASTE PETRO. NAPTHA.
Remark: SPILL OCCURED WHEN VALVE WAS LEFT OPEN, OIL SPRAYED OVER SNOW.

Click this hyperlink while viewing on your computer to access additional NY_HIST_SPILL: detail in the EDR Site Report.

B9 **SUPERIOR MACHINE PRODUCTS** **NY Spills 1000788964**
ESE **400 MINERALS SPRING ROAD** **NY Hist Spills N/A**
1/8-1/4 **WEST SENECA, NY**
0.174 mi.
918 ft. **Site 2 of 8 in cluster B**

Relative:
Higher

Actual:
590 ft.

NY Spills:
Site ID: 85286
Facility Addr2: Not reported
Facility ID: 8809724
Spill Number: 8809724
Facility Type: ER
SWIS: 1568
Investigator: ROSS
Referred To: Not reported
Spill Date: 3/17/1989
Reported to Dept: 3/17/1989
CID: Not reported
Spill Cause: Housekeeping
Water Affected: Not reported
Spill Source: Commercial/Industrial
Spill Notifier: Citizen
Cleanup Ceased: 9/13/1989
Cleanup Meets Std: True
Last Inspection: 5/1/1989
Recommended Penalty: Penalty Not Recommended
UST Trust: False
Spill Class: Not reported
Spill Closed Dt: 9/13/1989
Remediation Phase: 0
Date Entered In Computer: 3/17/1989
Spill Record Last Update: 9/18/1989

SUPERIOR MACHINE PRODUCTS (Continued) **1000788964**

Spiller Name:	Not reported
Spiller Company:	SUPERIOR MACHINE PRODUCTS
Spiller Address:	400 MINERAL SPRING ROAD
Spiller City,St,Zip:	WEST SENECA, NY 14224
Spiller Company:	001
Contact Name:	Not reported
Contact Phone:	Not reported
DEC Region:	9
DER Facility ID:	78364
DEC Memo:	Prior to Sept, 2004 data translation this spill Lead_DEC Field was "LQR" 03/17/89: LQR ON SITE SPILLER TO REMEDATE SITE,LETTER SENT RESPOND BY 03/31/89. 03/23/89: LQR MET REP. OF SPILLER REGARDING REMEDIATION. 04/19/89: LQR TELCON W/ SPILLER CLEANING UP SHOULD BE DONE BY NEXT WEEK. 05/01/89: LQR ON SITE W/SPILLER CLEANED UP,DISPOSAL RECIEPT TO FOLLOW. 09/13/89: DISPOSAL RECIEPT REC. LETTER SENT REGARDING SATISFACTORY CLEAN UP.
Remarks:	SLOPY HOUSEKEEPING AT FACILITY

Material:

Site ID:	85286
Operable Unit ID:	925980
Operable Unit:	01
Material ID:	450900
Material Code:	0013
Material Name:	Lube Oil
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	0
Units:	Gallons
Recovered:	No
Resource Affected:	Not reported
Oxygenate:	False

Tank Test:

Site ID:	Not reported
Spill Tank Test:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported
Leak Rate:	Not reported
Gross Fail:	Not reported
Modified By:	Not reported
Last Modified:	Not reported
Test Method:	Not reported

NY Hist Spills:

Region of Spill:	9
Spill Number:	8809724
Investigator:	LQR
Caller Name:	Not reported
Caller Agency:	Not reported
Caller Phone:	Not reported
Notifier Name:	Not reported
Notifier Agency:	Not reported
Notifier Phone:	Not reported
Spill Date/Time:	03/17/1989 11:00

SUPERIOR MACHINE PRODUCTS (Continued) **1000788964**

Reported to Dept Date/Time: 03/17/89 11:15
SWIS: 14
Spiller Name: SUPERIOR MACHINE PRODUCTS
Spiller Contact: Not reported
Spiller Phone: (716) 822-5905
Spiller Address: 400 MINERAL SPRING ROAD
Spiller City,St,Zip: WEST SENECA, NY 14224
Spill Cause: Housekeeping
Reported to Dept: On Land
Water Affected: Not reported
Spill Source: 01
Spill Notifier: Citizen
PBS Number: Not reported
Cleanup Ceased: 09/13/89
Cleanup Meets Std: True
Last Inspection: 05/01/89
Recommended Penalty: Penalty Not Recommended
Spiller Cleanup Dt: / /
Enforcement Date: / /
Invstgn Complete: / /
UST Involvement: False
Spill Class: Not reported
Spill Closed Dt: 09/13/89
Corrective Action Plan Submitted: / /
Date Region Sent Summary to Central Office: / /
Date Spill Entered In Computer Data File: 03/17/89
Date Spill Entered In Computer Data File: Not reported
Update Date: 09/18/89
Is Updated: False

Tank:
PBS Number: Not reported
Tank Number: Not reported
Tank Size: Not reported
Test Method: Not reported
Leak Rate Failed Tank: Not reported
Gross Leak Rate: Not reported

Material:
Material Class Type: Petroleum
Quantity Spilled: 0
Unkonwn Quantity Spilled: False
Units: Gallons
Quantity Recovered: 0
Unkonwn Quantity Recovered: False
Material: LUBRICATING OIL
Class Type: LUBRICATING OIL
Times Material Entry In File: 292
CAS Number: Not reported
Last Date: Not reported
Material: LUBE OIL
Class Type: LUBE OIL
Times Material Entry In File: 295
CAS Number: Not reported
Last Date: 19940728
DEC Remarks: 03/17/89: LQR ON SITE SPILLER TO REMEDATE SITE,LETTER SENT RESPOND BY 03/31/89. 03/23/89: LQR MET REP. OF SPILLER REGARDING REMEDIATION. 04/19/89: LQR TELCON W/ SPILLER CLEANING UP SHOULD BE DONE BY NEXT WEEK. 05/01/89: LQR ON SITE

SUPERIOR MACHINE PRODUCTS (Continued) **1000788964**

W/SPILLER CLEANED UP,DISPOSAL RECIEPT TO FOLLOW. 09/13/89: DISPOSAL RECIEPT REC. LETTER SENT REGARDING SATISFACTORY CLEAN UP.

Remark: SLOPY HOUSEKEEPING AT FACILITY

B10
East
1/8-1/4
0.188 mi.
992 ft.

MINERAL SPRINGS WORKS
365 MINERAL SPRINGS ROAD
WEST SENECA, NY 14210

ENG CONTROLS **S109416433**
INST CONTROL **N/A**
VCP

Site 3 of 8 in cluster B

Relative:
Higher

Actual:
590 ft.

ENG CONTROLS:

Site Code:	56872
HW Code:	V00195
Control Code:	15
Control Type:	ENG
Date Record Added:	2/20/2009 12:49:00 PM
Date Rec Updated:	12/3/2009 4:09:29 PM
Updated By:	SRHEIGEL
Site Description:	The National Fuel Gas Mineral Springs Facility is located at the site of a former Manufactured Gas Plant (MGP) facility. The site is located on Mineral Springs Road in a mixed industrial and residential area along the border between the City of Buffalo and the Town of West Seneca. Since its original use as a MGP, the property has been redeveloped into a major equipment maintenance and natural gas distribution center. Contamination on the site consists of typical MGP waste such as purifier waste (ferrous cyanide) and coal tar residuals. The character and extent of site contamination has been previously determined by several environmental investigations conducted by National Fuel Gas. The results of that work determined that the extent of the purifier waste was located in three areas of the property where disposal of this material occurred. Coal tar residuals were also located in several areas of the site. Source materials were found to be within the former separator pits and in surface and subsurface soils in suspected disposal areas. Groundwater contamination is limited to within the site boundries for both the purifier waste and coal tar. Low levels of site contaminants have been detected off-site in groundwater samples. The remedial work was completed in June 2001. Approximately 32,000 tons of material was removed from the site. A deed restriction has been placed on the property prohibiting use of groundwater and restricting site use to commercial/industrial. A Site Operation and Maintenance (O&M) plan requiring inspection, groundwater monitoring, and reporting is in place.
Env Problem:	Site contaminant source areas have either been removed or capped in place. No further action is warranted at this time.
Health Problem:	The remedial actions which included limited off-site disposal and capping of purifier and coal tar waste, DNAPL recovery, fencing and deed restrictions have mitigated the potential for exposures.

Site Code:	56872
HW Code:	V00195
Control Code:	22
Control Type:	ENG
Date Record Added:	2/20/2009 12:49:00 PM
Date Rec Updated:	12/3/2009 4:09:29 PM
Updated By:	SRHEIGEL
Site Description:	The National Fuel Gas Mineral Springs Facility is located at the site of a former Manufactured Gas Plant (MGP) facility. The site is

MINERAL SPRINGS WORKS (Continued) **S109416433**

located on Mineral Springs Road in a mixed industrial and residential area along the border between the City of Buffalo and the Town of West Seneca. Since its original use as a MGP, the property has been redeveloped into a major equipment maintenance and natural gas distribution center. Contamination on the site consists of typical MGP waste such as purifier waste (ferrous cyanide) and coal tar residuals. The character and extent of site contamination has been previously determined by several environmental investigations conducted by National Fuel Gas. The results of that work determined that the extent of the purifier waste was located in three areas of the property where disposal of this material occurred. Coal tar residuals were also located in several areas of the site. Source materials were found to be within the former separator pits and in surface and subsurface soils in suspected disposal areas. Groundwater contamination is limited to within the site boundries for both the purifier waste and coal tar. Low levels of site contaminants have been detected off-site in groundwater samples. The remedial work was completed in June 2001. Approximately 32,000 tons of material was removed from the site. A deed restriction has been placed on the property prohibiting use of groundwater and restricting site use to commercial/industrial. A Site Operation and Maintenance (O&M) plan requiring inspection, groundwater monitoring, and reporting is in place.

Env Problem: Site contaminant source areas have either been removed or capped in place. No further action is warranted at this time.

Health Problem: The remedial actions which included limited off-site disposal and capping of purifier and coal tar waste, DNAPL recovery, fencing and deed restrictions have mitigated the potential for exposures.

INST CONTROL:

Site Code:	56872
Control Name:	Legacy Restriction
HW Code:	V00195
Control Code:	A
Control Type:	INST
Dt record added:	2/20/2009 12:49:00 PM
Dt rec updated:	12/3/2009 4:09:29 PM
Updated By:	SRHEIGEL
Site Code:	56872
Site Description:	The National Fuel Gas Mineral Springs Facility is located at the site of a former Manufactured Gas Plant (MGP) facility. The site is located on Mineral Springs Road in a mixed industrial and residential area along the border between the City of Buffalo and the Town of West Seneca. Since its original use as a MGP, the property has been redeveloped into a major equipment maintenance and natural gas distribution center. Contamination on the site consists of typical MGP waste such as purifier waste (ferrous cyanide) and coal tar residuals. The character and extent of site contamination has been previously determined by several environmental investigations conducted by National Fuel Gas. The results of that work determined that the extent of the purifier waste was located in three areas of the property where disposal of this material occurred. Coal tar residuals were also located in several areas of the site. Source materials were found to be within the former separator pits and in surface and subsurface soils in suspected disposal areas. Groundwater contamination is limited to within the site boundries for both the purifier waste and coal tar. Low levels of site contaminants have

MINERAL SPRINGS WORKS (Continued) **S109416433**

been detected off-site in groundwater samples. The remedial work was completed in June 2001. Approximately 32,000 tons of material was removed from the site. A deed restriction has been placed on the property prohibiting use of groundwater and restricting site use to commercial/industrial. A Site Operation and Maintenance (O&M) plan requiring inspection, groundwater monitoring, and reporting is in place.

Env Problem: Site contaminant source areas have either been removed or capped in place. No further action is warranted at this time.

Health Problem: The remedial actions which included limited off-site disposal and capping of purifier and coal tar waste, DNAPL recovery, fencing and deed restrictions have mitigated the potential for exposures.

Site Code: 56872
Control Name: Ground Water Use Restriction
HW Code: V00195
Control Code: 08
Control Type: INST
Dt record added: 2/20/2009 12:49:00 PM
Dt rec updated: 12/3/2009 4:09:29 PM
Updated By: SRHEIGEL
Site Code: 56872

Site Description: The National Fuel Gas Mineral Springs Facility is located at the site of a former Manufactured Gas Plant (MGP) facility. The site is located on Mineral Springs Road in a mixed industrial and residential area along the border between the City of Buffalo and the Town of West Seneca. Since its original use as a MGP, the property has been redeveloped into a major equipment maintenance and natural gas distribution center. Contamination on the site consists of typical MGP waste such as purifier waste (ferrous cyanide) and coal tar residuals. The character and extent of site contamination has been previously determined by several environmental investigations conducted by National Fuel Gas. The results of that work determined that the extent of the purifier waste was located in three areas of the property where disposal of this material occurred. Coal tar residuals were also located in several areas of the site. Source materials were found to be within the former separator pits and in surface and subsurface soils in suspected disposal areas. Groundwater contamination is limited to within the site boundries for both the purifier waste and coal tar. Low levels of site contaminants have been detected off-site in groundwater samples. The remedial work was completed in June 2001. Approximately 32,000 tons of material was removed from the site. A deed restriction has been placed on the property prohibiting use of groundwater and restricting site use to commercial/industrial. A Site Operation and Maintenance (O&M) plan requiring inspection, groundwater monitoring, and reporting is in place.

Env Problem: Site contaminant source areas have either been removed or capped in place. No further action is warranted at this time.

Health Problem: The remedial actions which included limited off-site disposal and capping of purifier and coal tar waste, DNAPL recovery, fencing and deed restrictions have mitigated the potential for exposures.

Site Code: 56872
Control Name: Landuse Restriction
HW Code: V00195
Control Code: 25

MINERAL SPRINGS WORKS (Continued) **S109416433**

Control Type: INST
Dt record added: 2/20/2009 12:49:00 PM
Dt rec updated: 12/3/2009 4:09:29 PM
Updated By: SRHEIGEL
Site Code: 56872
Site Description: The National Fuel Gas Mineral Springs Facility is located at the site of a former Manufactured Gas Plant (MGP) facility. The site is located on Mineral Springs Road in a mixed industrial and residential area along the border between the City of Buffalo and the Town of West Seneca. Since its original use as a MGP, the property has been redeveloped into a major equipment maintenance and natural gas distribution center. Contamination on the site consists of typical MGP waste such as purifier waste (ferrous cyanide) and coal tar residuals. The character and extent of site contamination has been previously determined by several environmental investigations conducted by National Fuel Gas. The results of that work determined that the extent of the purifier waste was located in three areas of the property where disposal of this material occurred. Coal tar residuals were also located in several areas of the site. Source materials were found to be within the former separator pits and in surface and subsurface soils in suspected disposal areas. Groundwater contamination is limited to within the site boundries for both the purifier waste and coal tar. Low levels of site contaminants have been detected off-site in groundwater samples. The remedial work was completed in June 2001. Approximately 32,000 tons of material was removed from the site. A deed restriction has been placed on the property prohibiting use of groundwater and restricting site use to commercial/industrial. A Site Operation and Maintenance (O&M) plan requiring inspection, groundwater monitoring, and reporting is in place.
Env Problem: Site contaminant source areas have either been removed or capped in place. No further action is warranted at this time.
Health Problem: The remedial actions which included limited off-site disposal and capping of purifier and coal tar waste, DNAPL recovery, fencing and deed restrictions have mitigated the potential for exposures.

VCP:
Program Type: VCP
Site Code: 56872
HW Code: V00195
Site Class: C
SWIS: 1568
Region: 9
Town: West Seneca
Acres: 80.000
Date Record Added: 11/30/2000 4:06:00 PM
Date Record Updated: 12/6/2010 1:02:00 PM
Updated By: MLDOSTER
Site Description: The National Fuel Gas Mineral Springs Facility is located at the site of a former Manufactured Gas Plant (MGP) facility. The site is located on Mineral Springs Road in a mixed industrial and residential area along the border between the City of Buffalo and the Town of West Seneca. Since its original use as a MGP, the property has been redeveloped into a major equipment maintenance and natural gas distribution center. Contamination on the site consists of typical MGP waste such as purifier waste (ferrous cyanide) and coal tar residuals. The character and extent of site contamination has been

MINERAL SPRINGS WORKS (Continued) **S109416433**

previously determined by several environmental investigations conducted by National Fuel Gas. The results of that work determined that the extent of the purifier waste was located in three areas of the property where disposal of this material occurred. Coal tar residuals were also located in several areas of the site. Source materials were found to be within the former separator pits and in surface and subsurface soils in suspected disposal areas. Groundwater contamination is limited to within the site boundries for both the purifier waste and coal tar. Low levels of site contaminants have been detected off-site in groundwater samples. The remedial work was completed in June 2001. Approximately 32,000 tons of material was removed from the site. A deed restriction has been placed on the property prohibiting use of groundwater and restricting site use to commercial/industrial. A Site Operation and Maintenance (O&M) plan requiring inspection, groundwater monitoring, and reporting is in place.

Env Problem: Site contaminant source areas have either been removed or capped in place. No further action is warranted at this time.

Health Problem: The remedial actions which included limited off-site disposal and capping of purifier and coal tar waste, DNAPL recovery, fencing and deed restrictions have mitigated the potential for exposures.

B11
East
1/8-1/4
0.188 mi.
992 ft.

NATIONAL FUEL GAS - MINERAL SPRINGS
365 MINERAL SPRINGS RD
BUFFALO, NY 14210

RCRA-CESQG **1000212547**
FINDS **NYD981483829**
MANIFEST

Site 4 of 8 in cluster B

Relative:
Higher

Actual:
590 ft.

RCRA-CESQG:

Date form received by agency:	01/01/2007
Facility name:	NATIONAL FUEL GAS - MINERAL SPRINGS
Facility address:	365 MINERAL SPRINGS RD BUFFALO, NY 14210
EPA ID:	NYD981483829
Mailing address:	MAIN ST WILLIAMSVILLE, NY 14221
Contact:	JAMES A CLARK
Contact address:	MAIN ST WILLIAMSVILLE, NY 14221
Contact country:	US
Contact telephone:	(716) 827-2357
Contact email:	CLARKJ@NATFUEL.COM
EPA Region:	02
Land type:	Private
Classification:	Conditionally Exempt Small Quantity Generator
Description:	Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely

NATIONAL FUEL GAS - MINERAL SPRINGS (Continued) 1000212547

hazardous waste

Owner/Operator Summary:

Owner/operator name:	NO NAME FOUND
Owner/operator address:	Not reported
	NY
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	01/01/1924
Owner/Op end date:	Not reported
Owner/operator name:	NATIONAL FUEL GAS
Owner/operator address:	Not reported
	NY
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	01/01/1924
Owner/Op end date:	Not reported
Owner/operator name:	NATIONAL FUEL GAS
Owner/operator address:	Not reported
	Not reported
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	01/01/1924
Owner/Op end date:	Not reported
Owner/operator name:	NO NAME FOUND
Owner/operator address:	Not reported
	Not reported
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	01/01/1924
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No

NATIONAL FUEL GAS - MINERAL SPRINGS (Continued) **1000212547**

Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 01/01/2006
Facility name: NATIONAL FUEL GAS - MINERAL SPRINGS
Classification: Small Quantity Generator

Date form received by agency: 06/14/2004
Facility name: NATIONAL FUEL GAS - MINERAL SPRINGS
Classification: Small Quantity Generator

Date form received by agency: 02/20/2004
Facility name: NATIONAL FUEL GAS - MINERAL SPRINGS
Site name: NATIONAL FUEL GAS, MINERAL SPRINGS
Classification: Small Quantity Generator

Date form received by agency: 01/01/2001
Facility name: NATIONAL FUEL GAS - MINERAL SPRINGS
Site name: NATIONAL FUEL GAS
Classification: Large Quantity Generator

Date form received by agency: 03/20/1996
Facility name: NATIONAL FUEL GAS - MINERAL SPRINGS
Site name: MINRAL SPRINGS WORKS
Classification: Large Quantity Generator

Date form received by agency: 03/30/1994
Facility name: NATIONAL FUEL GAS - MINERAL SPRINGS
Site name: NATIONAL FUEL GAS
Classification: Large Quantity Generator

Date form received by agency: 02/28/1992
Facility name: NATIONAL FUEL GAS - MINERAL SPRINGS
Site name: MINERAL SPRINGS WORK
Classification: Large Quantity Generator

Date form received by agency: 04/28/1986
Facility name: NATIONAL FUEL GAS - MINERAL SPRINGS
Site name: MINERAL SPRINGS NFG
Classification: Small Quantity Generator

Hazardous Waste Summary:

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D004
Waste name: ARSENIC

NATIONAL FUEL GAS - MINERAL SPRINGS (Continued) **1000212547**

Waste code: D008
Waste name: LEAD

Waste code: D018
Waste name: BENZENE

Waste code: B007
Waste name: B007

Violation Status: No violations found

Evaluation Action Summary:
Evaluation date: 03/25/2008
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

FINDS:

Registry ID: 110008020747

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

NY MANIFEST:
EPA ID: NYD981483829
Country: USA
Mailing Name: NATIONAL FUEL GAS SUPPLY CORPORATION
Mailing Contact: NATIONAL FUEL GAS SUPPLY CORPORATION
Mailing Address: 365 MINERAL SPRINGS ROAD
Mailing Address 2: Not reported
Mailing City: WEST SENECA
Mailing State: NY
Mailing Zip: 14210
Mailing Zip4: Not reported
Mailing Country: USA
Mailing Phone: 716-649-3121

Document ID: NYA9596496
Manifest Status: Completed copy
Trans1 State ID: 000000000
Trans2 State ID: 000000000
Generator Ship Date: 890810
Trans1 Recv Date: 890810
Trans2 Recv Date: Not reported
TSD Site Recv Date: 890810
Part A Recv Date: 890901
Part B Recv Date: 890815
Generator EPA ID: NYD981483829

NATIONAL FUEL GAS - MINERAL SPRINGS (Continued) **1000212547**

Trans1 EPA ID:	ILD051060408
Trans2 EPA ID:	Not reported
TSDF ID:	NYD981556541
Waste Code:	D001 - NON-LISTED IGNITABLE WASTES
Quantity:	00217
Units:	P - Pounds
Number of Containers:	003
Container Type:	DM - Metal drums, barrels
Handling Method:	R Material recovery of more than 75 percent of the total material.
Specific Gravity:	100
Waste Code:	Not reported
Quantity:	00027
Units:	P - Pounds
Number of Containers:	001
Container Type:	DF - Fiberboard or plastic drums (glass)
Handling Method:	R Material recovery of more than 75 percent of the total material.
Specific Gravity:	100
Year:	89

Document ID:	NYA9636963
Manifest Status:	Completed copy
Trans1 State ID:	000000000
Trans2 State ID:	000000000
Generator Ship Date:	890822
Trans1 Recv Date:	890822
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	890822
Part A Recv Date:	890901
Part B Recv Date:	890828
Generator EPA ID:	NYD981483829
Trans1 EPA ID:	ILD051060408
Trans2 EPA ID:	Not reported
TSDF ID:	NYD981556541
Waste Code:	F003 - UNKNOWN
Quantity:	00027
Units:	P - Pounds
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	R Material recovery of more than 75 percent of the total material.
Specific Gravity:	100
Year:	89

Document ID:	NYA9815409
Manifest Status:	Completed copy
Trans1 State ID:	000000000
Trans2 State ID:	000000000
Generator Ship Date:	891129
Trans1 Recv Date:	891129
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	891129
Part A Recv Date:	891205
Part B Recv Date:	891205
Generator EPA ID:	NYD981483829
Trans1 EPA ID:	ILD051060408
Trans2 EPA ID:	Not reported

NATIONAL FUEL GAS - MINERAL SPRINGS (Continued) **1000212547**

TSDF ID:	NYD981556541
Waste Code:	F003 - UNKNOWN
Quantity:	00027
Units:	P - Pounds
Number of Containers:	001
Container Type:	DF - Fiberboard or plastic drums (glass)
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	100
Year:	89

Document ID:	NYA9658258
Manifest Status:	Completed copy
Trans1 State ID:	NYEM4533
Trans2 State ID:	Not reported
Generator Ship Date:	891004
Trans1 Recv Date:	891004
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	891004
Part A Recv Date:	891012
Part B Recv Date:	891018
Generator EPA ID:	NYD981483829
Trans1 EPA ID:	ILD051060408
Trans2 EPA ID:	Not reported
TSDF ID:	NYD981556541
Waste Code:	F003 - UNKNOWN
Quantity:	00123
Units:	P - Pounds
Number of Containers:	002
Container Type:	DM - Metal drums, barrels
Handling Method:	R Material recovery of more than 75 percent of the total material.
Specific Gravity:	100
Year:	89

Document ID:	NYA9743343
Manifest Status:	Completed copy
Trans1 State ID:	NYEM4533
Trans2 State ID:	Not reported
Generator Ship Date:	890921
Trans1 Recv Date:	890921
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	890921
Part A Recv Date:	890927
Part B Recv Date:	890927
Generator EPA ID:	NYD981483829
Trans1 EPA ID:	ILD051060408
Trans2 EPA ID:	Not reported
TSDF ID:	NYD981556541
Waste Code:	F003 - UNKNOWN
Quantity:	00027
Units:	P - Pounds
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	R Material recovery of more than 75 percent of the total material.
Specific Gravity:	100
Year:	89

NATIONAL FUEL GAS - MINERAL SPRINGS (Continued) **1000212547**

Document ID:	NYA9843614
Manifest Status:	Completed copy
Trans1 State ID:	000000000
Trans2 State ID:	000000000
Generator Ship Date:	891215
Trans1 Recv Date:	891215
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	891215
Part A Recv Date:	891228
Part B Recv Date:	891218
Generator EPA ID:	NYD981483829
Trans1 EPA ID:	ILD051060408
Trans2 EPA ID:	Not reported
TSDF ID:	NYD981556541
Waste Code:	D001 - NON-LISTED IGNITABLE WASTES
Quantity:	00095
Units:	P - Pounds
Number of Containers:	002
Container Type:	DM - Metal drums, barrels
Handling Method:	R Material recovery of more than 75 percent of the total material.
Specific Gravity:	100
Waste Code:	Not reported
Quantity:	00027
Units:	P - Pounds
Number of Containers:	001
Container Type:	DF - Fiberboard or plastic drums (glass)
Handling Method:	R Material recovery of more than 75 percent of the total material.
Specific Gravity:	100
Year:	89

Document ID:	NYA9684999
Manifest Status:	Completed copy
Trans1 State ID:	NYEM4533
Trans2 State ID:	Not reported
Generator Ship Date:	890912
Trans1 Recv Date:	890912
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	890912
Part A Recv Date:	890918
Part B Recv Date:	890919
Generator EPA ID:	NYD981483829
Trans1 EPA ID:	ILD051060408
Trans2 EPA ID:	Not reported
TSDF ID:	NYD981556541
Waste Code:	F003 - UNKNOWN
Quantity:	00027
Units:	P - Pounds
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	R Material recovery of more than 75 percent of the total material.
Specific Gravity:	100
Year:	89

Document ID:	NYC0024985
Manifest Status:	Completed copy

NATIONAL FUEL GAS - MINERAL SPRINGS (Continued) **1000212547**

Trans1 State ID:	000000000
Trans2 State ID:	000000000
Generator Ship Date:	891222
Trans1 Recv Date:	891222
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	891222
Part A Recv Date:	900104
Part B Recv Date:	891228
Generator EPA ID:	NYD981483829
Trans1 EPA ID:	ILD051060408
Trans2 EPA ID:	Not reported
TSDF ID:	NYD981556541
Waste Code:	F003 - UNKNOWN
Quantity:	00123
Units:	P - Pounds
Number of Containers:	002
Container Type:	DM - Metal drums, barrels
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	100
Year:	89

Document ID:	NYA9661083
Manifest Status:	Completed copy
Trans1 State ID:	NYCL9286
Trans2 State ID:	Not reported
Generator Ship Date:	891018
Trans1 Recv Date:	891018
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	891018
Part A Recv Date:	891025
Part B Recv Date:	891024
Generator EPA ID:	NYD981483829
Trans1 EPA ID:	ILD051060408
Trans2 EPA ID:	Not reported
TSDF ID:	NYD981556541
Waste Code:	D001 - NON-LISTED IGNITABLE WASTES
Quantity:	00217
Units:	P - Pounds
Number of Containers:	003
Container Type:	DM - Metal drums, barrels
Handling Method:	R Material recovery of more than 75 percent of the total material.
Specific Gravity:	100
Waste Code:	Not reported
Quantity:	00027
Units:	P - Pounds
Number of Containers:	001
Container Type:	DF - Fiberboard or plastic drums (glass)
Handling Method:	R Material recovery of more than 75 percent of the total material.
Specific Gravity:	100
Year:	89

Document ID:	NYA9817806
Manifest Status:	Completed copy
Trans1 State ID:	000000000
Trans2 State ID:	000000000

NATIONAL FUEL GAS - MINERAL SPRINGS (Continued) **1000212547**

Generator Ship Date:	891207
Trans1 Recv Date:	891207
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	891207
Part A Recv Date:	891212
Part B Recv Date:	891211
Generator EPA ID:	NYD981483829
Trans1 EPA ID:	ILD051060408
Trans2 EPA ID:	Not reported
TSDF ID:	NYD981556541
Waste Code:	D001 - NON-LISTED IGNITABLE WASTES
Quantity:	00090
Units:	P - Pounds
Number of Containers:	002
Container Type:	DM - Metal drums, barrels
Handling Method:	R Material recovery of more than 75 percent of the total material.
Specific Gravity:	100
Year:	89

Document ID:	ARA4230390
Manifest Status:	Completed after the designated time period for a TSDF to get a copy to the DEC
Trans1 State ID:	PC0902H20
Trans2 State ID:	Not reported
Generator Ship Date:	891102
Trans1 Recv Date:	891102
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	891106
Part A Recv Date:	891219
Part B Recv Date:	891121
Generator EPA ID:	NYD981483829
Trans1 EPA ID:	OHD009865825
Trans2 EPA ID:	Not reported
TSDF ID:	ARD069748192
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	01428
Units:	P - Pounds
Number of Containers:	010
Container Type:	DM - Metal drums, barrels
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	100
Waste Code:	Not reported
Quantity:	13707
Units:	P - Pounds
Number of Containers:	012
Container Type:	CW - Wooden boxes
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	100
Year:	89

Document ID:	NYA9749957
Manifest Status:	Completed copy
Trans1 State ID:	NYCL9286
Trans2 State ID:	Not reported
Generator Ship Date:	891109
Trans1 Recv Date:	891109

NATIONAL FUEL GAS - MINERAL SPRINGS (Continued) **1000212547**

Trans2 Recv Date:	Not reported
TSD Site Recv Date:	891109
Part A Recv Date:	891120
Part B Recv Date:	891117
Generator EPA ID:	NYD981483829
Trans1 EPA ID:	ILD051060408
Trans2 EPA ID:	Not reported
TSDF ID:	NYD981556541
Waste Code:	D001 - NON-LISTED IGNITABLE WASTES
Quantity:	00475
Units:	P - Pounds
Number of Containers:	006
Container Type:	DM - Metal drums, barrels
Handling Method:	R Material recovery of more than 75 percent of the total material.
Specific Gravity:	100
Year:	89

Document ID:	ILA4118615
Manifest Status:	Completed after the designated time period for a TSDF to get a copy to the DEC
Trans1 State ID:	179768223
Trans2 State ID:	Not reported
Generator Ship Date:	891108
Trans1 Recv Date:	891108
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	891109
Part A Recv Date:	891220
Part B Recv Date:	891129
Generator EPA ID:	NYD981483829
Trans1 EPA ID:	NYD980769947
Trans2 EPA ID:	Not reported
TSDF ID:	ILD000672121
Waste Code:	B003 - PETROLEUM OIL WITH 500 PPM OR > PCB
Quantity:	03692
Units:	G - Gallons (liquids only)* (8.3 pounds)
Number of Containers:	001
Container Type:	TT - Cargo tank, tank trucks
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	100
Year:	89

Document ID:	NYA9774415
Manifest Status:	Completed copy
Trans1 State ID:	000000000
Trans2 State ID:	000000000
Generator Ship Date:	891116
Trans1 Recv Date:	891116
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	891116
Part A Recv Date:	891127
Part B Recv Date:	891121
Generator EPA ID:	NYD981483829
Trans1 EPA ID:	ILD051060408
Trans2 EPA ID:	Not reported
TSDF ID:	NYD981556541
Waste Code:	D001 - NON-LISTED IGNITABLE WASTES

NATIONAL FUEL GAS - MINERAL SPRINGS (Continued) **1000212547**

Quantity: 00217
Units: P - Pounds
Number of Containers: 003
Container Type: DM - Metal drums, barrels
Handling Method: R Material recovery of more than 75 percent of the total material.
Specific Gravity: 100
Waste Code: Not reported
Quantity: 00027
Units: P - Pounds
Number of Containers: 001
Container Type: DF - Fiberboard or plastic drums (glass)
Handling Method: R Material recovery of more than 75 percent of the total material.
Specific Gravity: 100
Year: 89

Document ID: NYA9748045
Manifest Status: Completed copy
Trans1 State ID: NYEM4533
Trans2 State ID: Not reported
Generator Ship Date: 891031
Trans1 Recv Date: 891031
Trans2 Recv Date: Not reported
TSD Site Recv Date: 891102
Part A Recv Date: 891103
Part B Recv Date: 891108
Generator EPA ID: NYD981483829
Trans1 EPA ID: ILD051060408
Trans2 EPA ID: Not reported
TSDF ID: NYD981556541
Waste Code: F003 - UNKNOWN
Quantity: 00027
Units: P - Pounds
Number of Containers: 001
Container Type: DM - Metal drums, barrels
Handling Method: B Incineration, heat recovery, burning.
Specific Gravity: 100
Year: 89

Document ID: ARA4230380
Manifest Status: Completed after the designated time period for a TSDF to get a copy to the DEC
Trans1 State ID: PC936H245
Trans2 State ID: Not reported
Generator Ship Date: 891103
Trans1 Recv Date: 891103
Trans2 Recv Date: Not reported
TSD Site Recv Date: 891106
Part A Recv Date: 891219
Part B Recv Date: 891127
Generator EPA ID: NYD981483829
Trans1 EPA ID: NYD980769947
Trans2 EPA ID: Not reported
TSDF ID: ARD069748192
Waste Code: B003 - PETROLEUM OIL WITH 500 PPM OR > PCB
Quantity: 11245
Units: P - Pounds

NATIONAL FUEL GAS - MINERAL SPRINGS (Continued) **1000212547**

Number of Containers: 072
Container Type: DM - Metal drums, barrels
Handling Method: B Incineration, heat recovery, burning.
Specific Gravity: 100
Year: 89

Document ID: NYC0043233
Manifest Status: Completed copy
Trans1 State ID: 000000000
Trans2 State ID: 000000000
Generator Ship Date: 900117
Trans1 Recv Date: 900117
Trans2 Recv Date: Not reported
TSD Site Recv Date: 900117
Part A Recv Date: 900126
Part B Recv Date: 900122
Generator EPA ID: NYD981483829
Trans1 EPA ID: ILD051060408
Trans2 EPA ID: Not reported
TSDF ID: NYD981556541
Waste Code: D001 - NON-LISTED IGNITABLE WASTES
Quantity: 00090
Units: P - Pounds
Number of Containers: 002
Container Type: DM - Metal drums, barrels
Handling Method: R Material recovery of more than 75 percent of the total material.
Specific Gravity: 100
Year: 90

Document ID: NYA9791403
Manifest Status: Completed copy
Trans1 State ID: NYEM4533
Trans2 State ID: Not reported
Generator Ship Date: 891113
Trans1 Recv Date: 891113
Trans2 Recv Date: Not reported
TSD Site Recv Date: 891113
Part A Recv Date: 891122
Part B Recv Date: 891122
Generator EPA ID: NYD981483829
Trans1 EPA ID: ILD051060408
Trans2 EPA ID: Not reported
TSDF ID: NYD981556541
Waste Code: F003 - UNKNOWN
Quantity: 00027
Units: P - Pounds
Number of Containers: 001
Container Type: DM - Metal drums, barrels
Handling Method: B Incineration, heat recovery, burning.
Specific Gravity: 100
Year: 89

Document ID: NYA9711775
Manifest Status: Completed copy

NATIONAL FUEL GAS - MINERAL SPRINGS (Continued) **1000212547**

Trans1 State ID:	NYCL9286
Trans2 State ID:	Not reported
Generator Ship Date:	890922
Trans1 Recv Date:	890922
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	890922
Part A Recv Date:	890928
Part B Recv Date:	890928
Generator EPA ID:	NYD981483829
Trans1 EPA ID:	ILD051060408
Trans2 EPA ID:	Not reported
TSDF ID:	NYD981556541
Waste Code:	D001 - NON-LISTED IGNITABLE WASTES
Quantity:	00217
Units:	P - Pounds
Number of Containers:	003
Container Type:	DM - Metal drums, barrels
Handling Method:	R Material recovery of more than 75 percent of the total material.
Specific Gravity:	100
Waste Code:	Not reported
Quantity:	00027
Units:	P - Pounds
Number of Containers:	001
Container Type:	DF - Fiberboard or plastic drums (glass)
Handling Method:	R Material recovery of more than 75 percent of the total material.
Specific Gravity:	100
Year:	89

Document ID:	NYA9849137
Manifest Status:	Completed copy
Trans1 State ID:	000000000
Trans2 State ID:	000000000
Generator Ship Date:	891211
Trans1 Recv Date:	891211
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	891211
Part A Recv Date:	891218
Part B Recv Date:	891218
Generator EPA ID:	NYD981483829
Trans1 EPA ID:	ILD051060408
Trans2 EPA ID:	Not reported
TSDF ID:	NYD981556541
Waste Code:	F003 - UNKNOWN
Quantity:	00027
Units:	P - Pounds
Number of Containers:	001
Container Type:	DF - Fiberboard or plastic drums (glass)
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	100
Year:	89

Click this hyperlink while viewing on your computer to access
538 additional NY_MANIFEST: record(s) in the EDR Site Report.

B12
East
1/8-1/4
0.188 mi.
992 ft.

Relative:
Higher

Actual:
590 ft.

MINERAL SPRINGS WORKS
365 MINERAL SPRINGS ROAD
WEST SENECA, NY 14224

Manufactured Gas Plants **1008408069**
N/A

Site 5 of 8 in cluster B

Manufactured Gas Plants:
No additional information available

B13
East
1/8-1/4
0.188 mi.
992 ft.

Relative:
Higher

Actual:
590 ft.

NAT FUEL, MINERAL SPRINGS WORK
365 MINERAL SPRINGS ROAD
BUFFALO, NY 14210

HSWDS **S108147049**
N/A

Site 6 of 8 in cluster B

HSWDS:

Facility ID:	Not reported
Region:	9
Facility Status:	Unknown
Owner Type:	U
Owner:	National Fuel
Owner Address:	Unknown
Owner Phone:	Unknown
Operator Type:	Unknown
Operator:	Unknown
Operator:	Unknown
Operator Phone:	Unknown
EPA ID:	None
Registry:	Not on NYS Registry of Inactive Haz Waste Disposal Sites
Registry Site ID:	Not reported
RCRA Permitted:	Unknown
Site Code:	Leaking tanks, drums, lagoons, other containers
Owner City State:	Not reported
Operator City State:	Not reported
Quadrange:	Unknown
Latitude:	Unknown
Longitude:	Unknown
Acres:	0.00
Operator Date:	1925
Close Date:	1980
Completed:	Unknown
Active:	No
PCB's Disposed:	Yes
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:	Groundwater
Analytical Info Exists for Surface:	Not reported
Analytical Info Exists for Sediments:	Not reported
Analytical Info Exists for Surface:	Surface Soil
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

NAT FUEL, MINERAL SPRINGS WORK (Continued) **S108147049**

Threat to Environment/Public Health:	Environmental
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:	Unknown
Hazardous Exposure:	Unknown
Site Has Controlled Acess:	Unknown
Ambient Air Contamination:	Unknown
Direct Contact:	Unknown
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

B14
East
1/8-1/4
0.188 mi.
992 ft.

NATL FUEL GAS DIST CORP
365 MINERAL SPRINGS RD
BUFFALO, NY 14210

Site 7 of 8 in cluster B

MANIFEST **S110942727**
N/A

Relative:
Higher

Actual:
590 ft.

MANIFEST:

Location Telephone Number:	7168576910
Location Contact Name:	GEORGE E COX
Latitude Decimal Degrees (Assumed Nn.Nnnnnn):	Not reported
Longitude In Decimal Degrees (Assumed Decimal):	Not reported
Owner Or Alternate Company Name:	NATL FUEL GAS DIST CORP
Owner Or Alternate Street Address:	10 LAFAYETTE SQ RM 500
Owner Or Alternate Post Office Box:	Not reported
Owner Or Alternate City:	BUFFALO
Owner Or Alternate State:	NY
Owner Or Alternate Zip Code:	14203

NATL FUEL GAS DIST CORP (Continued) **S110942727**

Owner Or Alternate Telephone Number:	7168576910
Owner Or Alternate Contact Name:	GEORGE E COX
Operator Or Alternate Company Name:	Not reported
Operator Or Alternate Street Address:	Not reported
Operator Or Alternate Post Office Box:	Not reported
Operator Or Alternate City:	Not reported
Operator Or Alternate State:	Not reported
Operator Or Alternate Zip Code:	Not reported
Operator Or Alternate Telephone Number:	Not reported
Operator Or Alternate Contact Name:	Not reported
Secondary Or Alternate Usepa Identification Number:	Not reported
Standard Industrial Classification Code:	Not reported
Primary NAIC System Code:	Not reported
Secondary NAIC System Code:	Not reported
Haz Waste Large Quantity Generator Ind (H/Historic, 0-9 Year Latest Report, E Last Report > 10 Yrs):	Not reported
Haz Waste Small Quantity Generator(or Smaller) Ind (as above):	Not reported
Nonhazardous Waste Generator Ind (as above):	H
Compost Annual Reort Ind (as above):	Not reported
Landfill Annual Report Ind (as above):	Not reported
Potentially Infectious Medical Waste Annual Report Ind (as above):	Not reported
Haz Waste Permit Ind (S Indicates Activity):	Not reported
Solid Waste Permit Ind (S Indicates Activity):	Not reported
Used Tire Program Activity Ind (S Indicates Activity):	Not reported
Compliance Order Tracking Activity Ind (S Indicates Activity):	Not reported
Facility Compliance Tracking System Activity Ind (S Indicates Activity):	Not reported
Ind Of Groundwater Data In Mainframe Groundwater System (S Indicates Activity):	Not reported
Lust Program Activity Ind (S Indicates Activity):	Not reported
Lust Reimbursement Program Activity Ind (S Indicates Activity):	Not reported
Site Remediation Program Activity Ind (S Indicates Activity):	Not reported
FSRS Activity Ind (S Indicates Activity):	Not reported
State Response Action Activity Ind (S Indicates Activity):	Not reported
Name And Address Change Date - Month:	12
Name And Address Change Date - Day:	09
Name And Address Change Date - Year:	03
Hazardous Annual Report Company Name:	Not reported
Hazardous Annual Report Street Address:	Not reported
Hazardous Annual Report Post Office Box:	Not reported
Hazardous Annual Report City:	Not reported
Hazardous Annual Report State:	Not reported
Hazardous Annual Report Zip Code:	Not reported
Hazardous Annual Report Telephone Number:	Not reported
Hazardous Annual Report Contact First Name:	Not reported
Hazardous Annual Report Contact Last Name:	Not reported
Hazardous Annual Report Contact Person Title Code:	Not reported
Hazardous Annual Report New Notifier Code:	Not reported
FIPS Country Code:	001
FIPS State Code:	36
FIPS County Code:	029
FIPS City Or Township Code:	000
IEPA Region Identifier:	Not reported
Original Entry Date - Month:	09
Original Entry Date - Day:	28
Original Entry Date - Year:	89
Change Date - Month:	12
Change Date - Day:	09
Change Date - Year:	03
Primary USEPA Identification Number:	Not reported

NATL FUEL GAS DIST CORP (Continued) **S110942727**

Status: Not reported
Code: BP
Total Tanks: Not reported

B15 **MINERAL SPRINGS WORKS** **TANKS** **S110773939**
East **365 MINERAL SPRINGS RD** **N/A**
1/8-1/4 **BUFFALO, NY 14210**
0.188 mi.
992 ft. **Site 8 of 8 in cluster B**

Relative:
Higher

Actual:
590 ft.

TANKS:
Facility Id: 9-386766
Region: STATE
DEC Region: 9
Site Status: Active
Program Type: PBS
Expiration Date: 2012/10/06
UTM X: 189548.05872
UTM Y: 4752443.2787699997

C16 **NY Spills** **S104646180**
NNW **114 CABLE ST** **NY Hist Spills** **N/A**
1/8-1/4 **BUFFALO, NY**
0.204 mi.
1076 ft. **Site 1 of 2 in cluster C**

Relative:
Higher

Actual:
585 ft.

NY Spills:
Site ID: 254923
Facility Addr2: Not reported
Facility ID: 9705147
Spill Number: 9705147
Facility Type: ER
SWIS: 1502
Investigator: PRINGLE
Referred To: Not reported
Spill Date: 7/1/1997
Reported to Dept: 7/29/1997
CID: 211
Spill Cause: Equipment Failure
Water Affected: Not reported
Spill Source: Passenger Vehicle
Spill Notifier: Affected Persons
Cleanup Ceased: Not reported
Cleanup Meets Std: True
Last Inspection: 8/5/1997
Recommended Penalty: Penalty Not Recommended
UST Trust: False
Spill Class: Possible release with minimal potential for fire or hazard or Known release with no damage. No DEC Response. No corrective action required.
Spill Closed Dt: 1/23/1998
Remediation Phase: 0
Date Entered In Computer: 7/29/1997
Spill Record Last Update: 1/23/1998
Spiller Name: Not reported
Spiller Company: DANIEL MAHOLIC

S104646180

(Continued)

Spiller Address: Not reported
Spiller City,St,Zip: ZZ
Spiller Company: 001
Contact Name: Not reported
Contact Phone: Not reported
DEC Region: 9
DER Facility ID: 208816
DEC Memo: Prior to Sept, 2004 data translation this spill Lead_DEC Field was "MNP" 08/05/97: MNP INSP. MINOR SPILLAGE ALONG BOTH SIDES OF THE STREET. NO LEAKING CAR FOUND. NEED TO CONTACT CALLER FOR MORE INFO.
Remarks: car leaking oil up and down street

Material:
Site ID: 254923
Operable Unit ID: 1048430
Operable Unit: 01
Material ID: 334370
Material Code: 0022
Material Name: Waste Oil/Used Oil
Case No.: Not reported
Material FA: Petroleum
Quantity: 0
Units: Gallons
Recovered: No
Resource Affected: Not reported
Oxygenate: False

Tank Test:
Site ID: Not reported
Spill Tank Test: Not reported
Tank Number: Not reported
Tank Size: Not reported
Test Method: Not reported
Leak Rate: Not reported
Gross Fail: Not reported
Modified By: Not reported
Last Modified: Not reported
Test Method: Not reported

NY Hist Spills:
Region of Spill: 9
Spill Number: 9705147
Investigator: MNP
Caller Name: Not reported
Caller Agency: Not reported
Caller Phone: Not reported
Notifier Name: Not reported
Notifier Agency: Not reported
Notifier Phone: Not reported
Spill Date/Time: 07/01/1997 12:00
Reported to Dept Date/Time: 07/29/97 13:50
SWIS: 14
Spiller Name: DANIEL MAHOLIC
Spiller Contact: Not reported
Spiller Phone: Not reported
Spiller Address: Not reported

(Continued) **S104646180**

Spiller City,St,Zip: Not reported
Spill Cause: Equipment Failure
Reported to Dept: On Land
Water Affected: Not reported
Spill Source: 06
Spill Notifier: Affected Persons
PBS Number: Not reported
Cleanup Ceased: / /
Cleanup Meets Std: True
Last Inspection: 08/05/97
Recommended Penalty: Penalty Not Recommended
Spiller Cleanup Dt: / /
Enforcement Date: / /
Invstgn Complete: / /
UST Involvement: False
Spill Class: Possible release with minimal potential for fire or hazard or Known release with no damage. No DEC Response. No corrective action required.
Spill Closed Dt: 01/23/98
Corrective Action Plan Submitted: / /
Date Region Sent Summary to Central Office: / /
Date Spill Entered In Computer Data File: 07/29/97
Date Spill Entered In Computer Data File: Not reported
Update Date: 01/23/98
Is Updated: False

Tank:
PBS Number: Not reported
Tank Number: Not reported
Tank Size: Not reported
Test Method: Not reported
Leak Rate Failed Tank: Not reported
Gross Leak Rate: Not reported

Material:
Material Class Type: Petroleum
Quantity Spilled: 0
Unkonwn Quantity Spilled: True
Units: Gallons
Quantity Recovered: 0
Unkonwn Quantity Recovered: False
Material: WASTE OIL
Class Type: WASTE OIL
Times Material Entry In File: 9509
CAS Number: Not reported
Last Date: 19940927
DEC Remarks: 08/05/97: MNP INSP. MINOR SPILLAGE ALONG BOTH SIDES OF THE STREET. NO LEAKING CAR FOUND. NEED TO CONTACT CALLER FOR MORE INFO.
Remark: car leaking oil up and down street

D17 **LEAKING TRANSFORMER** **NY Spills** **S106016806**
North **193 FENTON ST** **N/A**
1/8-1/4 **BUFFALO, NY**
0.218 mi.
1150 ft. **Site 1 of 2 in cluster D**

Relative:
Higher

Actual:
582 ft.

NY Spills:

Site ID:	308629
Facility Addr2:	Not reported
Facility ID:	0304745
Spill Number:	0304745
Facility Type:	ER
SWIS:	1502
Investigator:	JFOTTO
Referred To:	Not reported
Spill Date:	8/5/2003
Reported to Dept:	8/5/2003
CID:	233
Spill Cause:	Equipment Failure
Water Affected:	Not reported
Spill Source:	Commercial/Industrial
Spill Notifier:	Responsible Party
Cleanup Ceased:	Not reported
Cleanup Meets Std:	True
Last Inspection:	8/8/2003
Recommended Penalty:	Penalty Not Recommended
UST Trust:	False
Spill Class:	Known release with minimal potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt:	9/16/2003
Remediation Phase:	0
Date Entered In Computer:	8/5/2003
Spill Record Last Update:	9/17/2003
Spiller Name:	KEVIN URBANSKI
Spiller Company:	NIMO
Spiller Address:	Not reported
Spiller City,St,Zip:	ZZ -
Spiller Company:	001
Contact Name:	Not reported
Contact Phone:	Not reported
DEC Region:	9
DER Facility ID:	249232
DEC Memo:	Prior to Sept, 2004 data translation this spill Lead_DEC Field was "JFO" 08/05/03 RMC/KIM DEVOE, 822-2442/PHONE. OIL WENT ON HER LAWN, FENCE AND KIDDY POOL, NIAGARA MOHAWK IS ON SITE NOW CLEANING UP. SHE WOULD LIKE SOMEONE TO INSPECT THE AREA. SHE IS ON OPPOSITE SIDE OF FENCE WHERE SPILL HAPPENED. 08/05/03 JFO ON SITE NO ONE AVAILABLE. THE BUSHES, FENCE AND SOIL IS AFFECTED. CALL TO KEVIN URBANSKI OF NIMO. THE CLEANUP CREW WILL BE ON SITE TODAY. 08/06/03 JFO TELCON WITH KEVIN U. THEY ARE COMPLETING THE CLEANUP TODAY. THEY ARE REMOVING THE BUSHES & SOIL. ALSO THEY WILL REPLACE THE POOL AND CLEAN THE FENCE. HE WILL FORWARD THE PCB RESULTS WHEN HE RECEIVES THEM. 08/07/03 JFO ON SITE MET WITH ROLAND SHEPPARD OF NIMO. THEY ARE REMOVING MORE SOIL AND WANT AN INSPECTION BEFORE BACKFILLING. 08/08/03 JFO ON SITE. SOIL REMOVE FROM BOTH SIDES OF THE FENCE. LOOKS OK. 08/12/03 JFO RECEIVED THE PCB RESULTS. 19PPM. OK TO BACKFILL. 09/16/03 JFO RECEIVED THE DISPOSAL RECEIPTS. NO FURTHER ACTION REQUIRED. CLOSED
Remarks:	pole mounted transformer overheated and spill to gound some material

LEAKING TRANSFORMER (Continued) **S106016806**

may have hit a fence and a pool clean up and full evaluation will be done at first light

Material:

Site ID:	308629
Operable Unit ID:	873162
Operable Unit:	01
Material ID:	505601
Material Code:	0020A
Material Name:	TRANSFORMER OIL
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	0
Units:	Gallons
Recovered:	No
Resource Affected:	Not reported
Oxygenate:	False

Tank Test:

Site ID:	Not reported
Spill Tank Test:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported
Leak Rate:	Not reported
Gross Fail:	Not reported
Modified By:	Not reported
Last Modified:	Not reported
Test Method:	Not reported

18
NNE
1/8-1/4
0.221 mi.
1168 ft.

Relative:
Lower

Actual:
579 ft.

CONTAINER IN VACANT FIELD **NY Spills** **S102245440**
46 PIERCE STREET **NY Hist Spills** **N/A**
BUFFALO, NY

NY Spills:

Site ID:	256255
Facility Addr2:	Not reported
Facility ID:	9602675
Spill Number:	9602675
Facility Type:	ER
SWIS:	1502
Investigator:	COOKE
Referred To:	Not reported
Spill Date:	5/1/1996
Reported to Dept:	5/24/1996
CID:	365
Spill Cause:	Abandoned Drums
Water Affected:	Not reported
Spill Source:	Unknown
Spill Notifier:	Local Agency
Cleanup Ceased:	5/24/1996
Cleanup Meets Std:	True
Last Inspection:	Not reported
Recommended Penalty:	Penalty Not Recommended
UST Trust:	False

CONTAINER IN VACANT FIELD (Continued) **S102245440**

Spill Class:	Known release with minimal potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt:	5/24/1996
Remediation Phase:	0
Date Entered In Computer:	5/24/1996
Spill Record Last Update:	6/26/1996
Spiller Name:	Not reported
Spiller Company:	UNKNOWN
Spiller Address:	Not reported
Spiller City,St,Zip:	NY
Spiller Company:	999
Contact Name:	Not reported
Contact Phone:	Not reported
DEC Region:	9
DER Facility ID:	209862
DEC Memo:	Prior to Sept, 2004 data translation this spill Lead_DEC Field was "JDC" 5/24/96: JDC TELCON W/ BRIAN GUEST, CITY STREETS, THEY WILL COLLECT BUCKET OF MATERIAL AND SOLIDIFY TO DISPOSE OF TO NORMAL REFUSE. NO FURTHER ACTION REQUIRED.
Remarks:	citizen complained that an abandoned 5 gal pail of potassium oxidizer was dumped. city does not know if hazardous. ould like a call back. ***faxed over from region***

Material:

Site ID:	256255
Operable Unit ID:	1034037
Operable Unit:	01
Material ID:	348921
Material Code:	0064A
Material Name:	UNKNOWN MATERIAL
Case No.:	Not reported
Material FA:	Other
Quantity:	5
Units:	Gallons
Recovered:	5
Resource Affected:	Not reported
Oxygenate:	False

Tank Test:

Site ID:	Not reported
Spill Tank Test:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported
Leak Rate:	Not reported
Gross Fail:	Not reported
Modified By:	Not reported
Last Modified:	Not reported
Test Method:	Not reported

NY Hist Spills:

Region of Spill:	9
Spill Number:	9602675
Investigator:	JDC
Caller Name:	Not reported
Caller Agency:	Not reported

CONTAINER IN VACANT FIELD (Continued) **S102245440**

Caller Phone: Not reported
Notifier Name: Not reported
Notifier Agency: Not reported
Notifier Phone: Not reported
Spill Date/Time: 05/01/1996 12:00
Reported to Dept Date/Time: 05/24/96 10:40
SWIS: 14
Spiller Name: UNKNOWN
Spiller Contact: Not reported
Spiller Phone: Not reported
Spiller Address: Not reported
Spiller City,St,Zip: Not reported
Spill Cause: Abandoned Drums
Reported to Dept: On Land
Water Affected: Not reported
Spill Source: 12
Spill Notifier: Local Agency
PBS Number: Not reported
Cleanup Ceased: 05/24/96
Cleanup Meets Std: True
Last Inspection: / /
Recommended Penalty: Penalty Not Recommended
Spiller Cleanup Dt: / /
Enforcement Date: / /
Invstgn Complete: / /
UST Involvement: False
Spill Class: Known release with minimal potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt: 05/24/96
Corrective Action Plan Submitted: / /
Date Region Sent Summary to Central Office: / /
Date Spill Entered In Computer Data File: 05/24/96
Date Spill Entered In Computer Data File: Not reported
Update Date: 06/26/96
Is Updated: False

Tank:
PBS Number: Not reported
Tank Number: Not reported
Tank Size: Not reported
Test Method: Not reported
Leak Rate Failed Tank: Not reported
Gross Leak Rate: Not reported

Material:
Material Class Type: Raw Sewage
Quantity Spilled: 5
Unkonwn Quantity Spilled: False
Units: Gallons
Quantity Recovered: 5
Unkonwn Quantity Recovered: False
Material: UNKNOWN MATERIAL
Class Type: UNKNOWN MATERIAL
Times Material Entry In File: 9140
CAS Number: Not reported
Last Date: 19941109
DEC Remarks: 5/24/96: JDC TELCON W/ BRIAN GUEST, CITY STREETS, THEY WILL COLLECT BUCKET OF MATERIAL AND SOLIDIFY TO DISPOSE OF TO NORMAL REFUSE. NO FURTHER ACTION

CONTAINER IN VACANT FIELD (Continued) **S102245440**

REQUIRED.

Remark: citi en complained that an abandoned 5 gal pail of potassium oxidi er was dumped. city does not know if ha ardous. ould like a call back. ***faxed over from region***

C19 **LEAKING AUTO** **NY Spills S102667864**
NNW **114 CABLE STREET** **NY Hist Spills N/A**
1/8-1/4 **BUFFALO, NY**
0.228 mi.
1205 ft. **Site 2 of 2 in cluster C**

Relative:
Higher

Actual:
586 ft.

NY Spills:

Site ID:	297308
Facility Addr2:	Not reported
Facility ID:	9705888
Spill Number:	9705888
Facility Type:	ER
SWIS:	1502
Investigator:	COOKE
Referred To:	Not reported
Spill Date:	8/14/1997
Reported to Dept:	8/14/1997
CID:	999
Spill Cause:	Equipment Failure
Water Affected:	Not reported
Spill Source:	Passenger Vehicle
Spill Notifier:	Other
Cleanup Ceased:	Not reported
Cleanup Meets Std:	True
Last Inspection:	8/14/1997
Recommended Penalty:	Penalty Not Recommended
UST Trust:	False
Spill Class:	Possible release with minimal potential for fire or hazard or Known release with no damage. No DEC Response. No corrective action required.
Spill Closed Dt:	8/14/1997
Remediation Phase:	0
Date Entered In Computer:	8/14/1997
Spill Record Last Update:	9/5/1997
Spiller Name:	Not reported
Spiller Company:	UNKNOWN NAME
Spiller Address:	CABLE STREET
Spiller City,St,Zip:	BUFFALO, NY
Spiller Company:	001
Contact Name:	Not reported
Contact Phone:	Not reported
DEC Region:	9
DER Facility ID:	240550
DEC Memo:	Prior to Sept, 2004 data translation this spill Lead_DEC Field was "JDC" 8/14/97: JDC ON SITE AND CONFIRMED OIL LEAKING FROM VEHICLE. OIL STAINING IN SEVERAL AREAS ALONG CURB, NO CLEANUP REQUIRED. SPOKE WITH OWNER WHO SAID HE WAS JUNKING THE CAR. NO FURTHER ACTION REQUIRED.
Remarks:	WHITE CHEVY LP #5319WE

Material:

Site ID:	297308
Operable Unit ID:	1049144

LEAKING AUTO (Continued) **S102667864**

Operable Unit: 01
Material ID: 331500
Material Code: 0022
Material Name: Waste Oil/Used Oil
Case No.: Not reported
Material FA: Petroleum
Quantity: 2
Units: Gallons
Recovered: No
Resource Affected: Not reported
Oxygenate: False

Tank Test:
Site ID: Not reported
Spill Tank Test: Not reported
Tank Number: Not reported
Tank Size: Not reported
Test Method: Not reported
Leak Rate: Not reported
Gross Fail: Not reported
Modified By: Not reported
Last Modified: Not reported
Test Method: Not reported

NY Hist Spills:
Region of Spill: 9
Spill Number: 9705888
Investigator: JDC
Caller Name: Not reported
Caller Agency: Not reported
Caller Phone: Not reported
Notifier Name: Not reported
Notifier Agency: Not reported
Notifier Phone: Not reported
Spill Date/Time: 08/14/1997 09:30
Reported to Dept Date/Time: 08/14/97 10:00
SWIS: 14
Spiller Name: UNKNOWN NAME
Spiller Contact: Not reported
Spiller Phone: ( ) -
Spiller Phone: ( ) -
Spiller Address: CABLE STREET
Spiller City,St,Zip: BUFFALO, NY
Spill Cause: Equipment Failure
Reported to Dept: On Land
Water Affected: Not reported
Spill Source: 06
Spill Notifier: Other
PBS Number: Not reported
Cleanup Ceased: / /
Cleanup Meets Std: True
Last Inspection: 08/14/97
Recommended Penalty: Penalty Not Recommended
Spiller Cleanup Dt: / /
Enforcement Date: / /

LEAKING AUTO (Continued) **S102667864**

Invstgn Complete: / /
UST Involvement: False
Spill Class: Possible release with minimal potential for fire or hazard or Known release with no damage. No DEC Response. No corrective action required.
Spill Closed Dt: 08/14/97
Corrective Action Plan Submitted: / /
Date Region Sent Summary to Central Office: / /
Date Spill Entered In Computer Data File: 08/14/97
Date Spill Entered In Computer Data File: Not reported
Update Date: 09/05/97
Is Updated: False

Tank:
PBS Number: Not reported
Tank Number: Not reported
Tank Size: Not reported
Test Method: Not reported
Leak Rate Failed Tank: Not reported
Gross Leak Rate: Not reported

Material:
Material Class Type: Petroleum
Quantity Spilled: 2
Unkonwn Quantity Spilled: False
Units: Gallons
Quantity Recovered: 0
Unkonwn Quantity Recovered: False
Material: WASTE OIL
Class Type: WASTE OIL
Times Material Entry In File: 9509
CAS Number: Not reported
Last Date: 19940927
DEC Remarks: 8/14/97: JDC ON SITE AND CONFIRMED OIL LEAKING FROM VEHICLE. OIL STAINING IN SEVERAL AREAS ALONG CURB, NO CLEANUP REQUIRED. SPOKE WITH OWNER WHO SAID HE WAS JUNKING THE CAR. NO FURTHER ACTION REQUIRED.
Remark: WHITE CHEVY LP 5319WE

D20 **POLE # 200** **NY Spills** **S106969694**
North **200 FENTON AVE** **N/A**
1/8-1/4 **BUFFALO, NY**
0.231 mi.
1220 ft. **Site 2 of 2 in cluster D**

Relative:
Higher

Actual:
582 ft.

NY Spills:
Site ID: 349303
Facility Addr2: Not reported
Facility ID: 0504462
Spill Number: 0504462
Facility Type: ER
SWIS: 1502
Investigator: JFOTTO
Referred To: Not reported
Spill Date: 7/14/2005
Reported to Dept: 7/14/2005
CID: 444
Spill Cause: Other
Water Affected: Not reported
Spill Source: Institutional, Educational, Gov., Other

POLE # 200 (Continued) **S106969694**

Spill Notifier:	Responsible Party
Cleanup Ceased:	Not reported
Cleanup Meets Std:	True
Last Inspection:	7/15/2005
Recommended Penalty:	Penalty Not Recommended
UST Trust:	False
Spill Class:	Known release with minimal potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt:	9/13/2005
Remediation Phase:	0
Date Entered In Computer:	7/14/2005
Spill Record Last Update:	9/13/2005
Spiller Name:	LISA FREDERICKS
Spiller Company:	POLE # 200
Spiller Address:	200 FENTON AVE
Spiller City,St,Zip:	BUFFALO, NY
Spiller Company:	001
Contact Name:	LISA FREDERICKS
Contact Phone:	(716) 479-5339
DEC Region:	9
DER Facility ID:	295749
DEC Memo:	7/14/05 JFO SITE VISIT. MET LISA FREDERICKS, NIMO AND HEALTH & SAFETY NIMO OFFICER AS WELL AS OP TECH ON SITE. OIL HAD LEAKED FROM THE TRANSFORMER THAT WAS IN THE BACK YARD OF 200 AND 206 FENTON ONTO THE VEGETATION AND AT THE WOODEN FENCE AT 200 FENTON. THE TRANSFORMER OIL SPRAYED ONTO THE ROOF,THE COVERED POOL, VEGETATION, AND TOYS AT 206 FENTON. A PAIL WAS COLLECTING OIL AT THE DOWNSPOUT OF THE ROOF DRAIN. MS. FREDERICKS INDICATED THAT THE KIDS WERE CATCHING OIL AND DUMPING IT ONTO A NEIGHBORS PROPERTY BEHIND THE GARAGE. OP TECH BEGAN CLEANING UP THE VEGETATION AT 200 FENTON. 7/15/05 JFO SITE VISIT. MET LISA FREDERICKS WITH NIMO ON SITE. NOTED AN OILY FOOTPRINT ON THE DECK OF 206 FENTON AS WELL AS SOME STEPPING STONES. VEGETATION AT 206 FENTON WAS REMOVED. ROOF WAS COVERED WITH BLUE PLASTIC. SPOKE TO THE OWNER OF 206 FENTON WHO INDICATED THAT THEIR PET WALKED THROUGH SOME OF THE OIL AND SPREAD IT INTO THE HOME ON THEIR RUG AND COUCH. THE OWNER STATED THAT SHE SCRUBBED THE DOG THREE TIMES BUT IT STILL HAD OIL ON IT. MS. FREDERICKS STATED THAT THE ANALYTICAL SHOWED PCB LEVELS TO BE AT 24 PPM. 7/18/05 FG SPOKE TO GARY HOUSE WITH OP TECH WHO SAID THAT HE REMOVED THE RUG AND COUCH ON SATURDAY. HE WAS IN THE PROCESS OF DEWATERING THE POOLS TODAY AND WILL REPLACE THEM. HE SAID THEY ARE PLANNING ON COLLECTING SAMPLES FOR ANALYSIS. 08/04/05 JFO CALL FROM LISA FREDERICKS. THEY COLLECTED 56 SAMPLES AND ALL WERE NON DETECT FOR PCB'S. 09/12/05 JFO RECEIVED THE DISPOSAL RECEIPTS FOR THE CLEANUP MATERIAL AND DEBRIS. NO FURTHER ACTION REQUIRED. CLOSED
Remarks:	OVERHEATED TRANSFORMER: LESS THEN 1 GALLON: ON A LAWN AND INSIDE A GARAGE

Material:

Site ID:	349303
Operable Unit ID:	1106902
Operable Unit:	01
Material ID:	2096226
Material Code:	0020A
Material Name:	TRANSFORMER OIL
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	0
Units:	Gallons

POLE # 200 (Continued) **S106969694**

Recovered: No
Resource Affected: Not reported
Oxygenate: False

Tank Test:
Site ID: Not reported
Spill Tank Test: Not reported
Tank Number: Not reported
Tank Size: Not reported
Test Method: Not reported
Leak Rate: Not reported
Gross Fail: Not reported
Modified By: Not reported
Last Modified: Not reported
Test Method: Not reported

E21 **IN YARD** **NY Spills** **S110307997**
NNW **123 BARNARD** **N/A**
1/4-1/2 **BUFFALO, NY**
0.266 mi.
1403 ft. **Site 1 of 2 in cluster E**

Relative:
Higher

Actual:
585 ft.

NY Spills:
Site ID: 431682
Facility Addr2: Not reported
Facility ID: 1000514
Spill Number: 1000514
Facility Type: ER
SWIS: 1502
Investigator: FXGALLEG
Referred To: DIVISION OF AIR
Spill Date: 4/1/2010
Reported to Dept: 4/13/2010
CID: Not reported
Spill Cause: Unknown
Water Affected: Not reported
Spill Source: Private Dwelling
Spill Notifier: Citizen
Cleanup Ceased: Not reported
Cleanup Meets Std: False
Last Inspection: Not reported
Recommended Penalty: Penalty Not Recommended
UST Trust: False
Spill Class: Possible release with minimal potential for fire or hazard or Known release with no damage. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt: 4/13/2010
Remediation Phase: 0
Date Entered In Computer: 4/13/2010
Spill Record Last Update: 4/13/2010
Spiller Name: Not reported
Spiller Company: Not reported
Spiller Address: Not reported
Spiller City,St,Zip: Not reported
Spiller Company: Not reported
Contact Name: Not reported

IN YARD (Continued) **S110307997**

Contact Phone:	Not reported
DEC Region:	9
DER Facility ID:	380668
DEC Memo:	4/13/10 FG REFERRED THE COMPLAINT TO THE DIVISION OF AIR BECAUSE IT IS AN ODOR COMPLAINT. THEY WILL SEND AN INSPECTOR. NO FURTHER WORK BY SPILLS IS REQUIRED. THE SITE IS CLOSED. ELECTRONIC FILE ONLY.
Remarks:	CALLER CLAIMS THAT STRONG CHEMICAL ODOR COMES OUT OF PIPE IN THE YARD, ONGOING FOR 2 YEARS.

Material:

Site ID:	431682
Operable Unit ID:	1183153
Operable Unit:	01
Material ID:	2177350
Material Code:	0064A
Material Name:	UNKNOWN MATERIAL
Case No.:	Not reported
Material FA:	Other
Quantity:	Not reported
Units:	Not reported
Recovered:	Not reported
Resource Affected:	Not reported
Oxygenate:	False

Tank Test:

Site ID:	Not reported
Spill Tank Test:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported
Leak Rate:	Not reported
Gross Fail:	Not reported
Modified By:	Not reported
Last Modified:	Not reported
Test Method:	Not reported

E22 **ON ROADWAY** **NY Spills** **S110140180**
North **127 CASIMIR ST** **N/A**
1/4-1/2 **BUFFALO, NY**
0.281 mi.
1483 ft. **Site 2 of 2 in cluster E**

Relative:
Higher

Actual:
585 ft.

NY Spills:

Site ID:	424724
Facility Addr2:	Not reported
Facility ID:	0911877
Spill Number:	0911877
Facility Type:	ER
SWIS:	1502
Investigator:	JFOTTO
Referred To:	Not reported
Spill Date:	2/9/2010
Reported to Dept:	2/9/2010
CID:	Not reported
Spill Cause:	Equipment Failure
Water Affected:	Not reported
Spill Source:	Unknown

ON ROADWAY (Continued) **S110140180**

Spill Notifier:	Other
Cleanup Ceased:	Not reported
Cleanup Meets Std:	True
Last Inspection:	2/9/2010
Recommended Penalty:	Penalty Not Recommended
UST Trust:	False
Spill Class:	Possible release with minimal potential for fire or hazard or Known release with no damage. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt:	2/9/2010
Remediation Phase:	0
Date Entered In Computer:	2/9/2010
Spill Record Last Update:	2/9/2010
Spiller Name:	Not reported
Spiller Company:	NAT'L GRID
Spiller Address:	Not reported
Spiller City,St,Zip:	NY
Spiller Company:	999
Contact Name:	LISA MONTESANO
Contact Phone:	(716) 479-5339
DEC Region:	9
DER Facility ID:	373657
DEC Memo:	02/09/10 JFO ON SITE NOA. THIS WAS A MINOR SPILL THAT WAS CLEANED UP. NO FURTHER ACTION REQUIRED. CLOSED ELECTRONIC FILE
Remarks:	truck # 8527 - on asphalt - crew on way for cleanup

Material:

Site ID:	424724
Operable Unit ID:	1180480
Operable Unit:	01
Material ID:	2174374
Material Code:	0015
Material Name:	Motor Oil
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	1
Units:	Gallons
Recovered:	Yes
Resource Affected:	Not reported
Oxygenate:	False

Tank Test:

Site ID:	Not reported
Spill Tank Test:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported
Leak Rate:	Not reported
Gross Fail:	Not reported
Modified By:	Not reported
Last Modified:	Not reported
Test Method:	Not reported

F23 **TRANSMISSION FLUID LEAK** **NY Spills** **S102680328**
SSW **60 NORTH RYAN STREET** **NY Hist Spills** **N/A**
1/4-1/2 **BUFFALO, NY**
0.298 mi.
1575 ft. **Site 1 of 2 in cluster F**

Relative:
Higher

Actual:
586 ft.

NY Spills:

Site ID:	238230
Facility Addr2:	Not reported
Facility ID:	9402732
Spill Number:	9402732
Facility Type:	ER
SWIS:	1502
Investigator:	SORGI
Referred To:	Not reported
Spill Date:	5/24/1994
Reported to Dept:	5/24/1994
CID:	Not reported
Spill Cause:	Equipment Failure
Water Affected:	Not reported
Spill Source:	Passenger Vehicle
Spill Notifier:	Citizen
Cleanup Ceased:	5/25/1994
Cleanup Meets Std:	True
Last Inspection:	5/25/1994
Recommended Penalty:	Penalty Not Recommended
UST Trust:	False
Spill Class:	Known release with minimal potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt:	5/25/1994
Remediation Phase:	0
Date Entered In Computer:	5/25/1994
Spill Record Last Update:	5/27/1994
Spiller Name:	Not reported
Spiller Company:	RESIDENT
Spiller Address:	60 NORTH RYAN STREET
Spiller City,St,Zip:	BUFFALO, NY
Spiller Company:	001
Contact Name:	Not reported
Contact Phone:	Not reported
DEC Region:	9
DER Facility ID:	196212
DEC Memo:	Prior to Sept, 2004 data translation this spill Lead_DEC Field was "MJS" 05/24/94: MJS SITE INSPECT. FOUND OIL STAIN ON APRON OF DRIVEWAY. RESIDENT NOT HOME. 05/25/94: MJS SITE VISIT - SPOKE W/ RESIDENT. SPILL WAS NOT DELIBERATE. TRANNY LINE LEAKED. SPILL CLEANED UP W/ RAGS AND DISPOSED. RESIDENT HOSED DOWN RESIDUAL.
Remarks:	TRANSMISSION FLUID LEAKED WHILE WORKING ON CAR

Material:

Site ID:	238230
Operable Unit ID:	996529
Operable Unit:	01
Material ID:	382909
Material Code:	0022
Material Name:	Waste Oil/Used Oil
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	5
Units:	Gallons

TRANSMISSION FLUID LEAK (Continued) **S102680328**

Recovered:	5
Resource Affected:	Not reported
Oxygenate:	False
Site ID:	238230
Operable Unit ID:	996529
Operable Unit:	01
Material ID:	382908
Material Code:	0021
Material Name:	Transmission Fluid
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	0
Units:	Not reported
Recovered:	No
Resource Affected:	Not reported
Oxygenate:	False

Tank Test:

Site ID:	Not reported
Spill Tank Test:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported
Leak Rate:	Not reported
Gross Fail:	Not reported
Modified By:	Not reported
Last Modified:	Not reported
Test Method:	Not reported

NY Hist Spills:

Region of Spill:	9
Spill Number:	9402732
Investigator:	MJS
Caller Name:	Not reported
Caller Agency:	Not reported
Caller Phone:	Not reported
Notifier Name:	Not reported
Notifier Agency:	Not reported
Notifier Phone:	Not reported
Spill Date/Time:	05/24/1994 11:00
Reported to Dept Date/Time:	05/24/94 16:05
SWIS:	14
Spiller Name:	RESIDENT
Spiller Contact:	Not reported
Spiller Phone:	Not reported
Spiller Address:	60 NORTH RYAN STREET
Spiller City,St,Zip:	BUFFALO, NY
Spill Cause:	Equipment Failure
Reported to Dept:	On Land
Water Affected:	Not reported
Spill Source:	06
Spill Notifier:	Citizen
PBS Number:	Not reported
Cleanup Ceased:	05/25/94
Cleanup Meets Std:	True

TRANSMISSION FLUID LEAK (Continued) **S102680328**

Last Inspection: 05/25/94
Recommended Penalty: Penalty Not Recommended
Spiller Cleanup Dt: / /
Enforcement Date: / /
Invstgn Complete: / /
UST Involvement: False
Spill Class: Known release with minimal potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt: 05/25/94
Corrective Action Plan Submitted: / /
Date Region Sent Summary to Central Office: / /
Date Spill Entered In Computer Data File: 05/25/94
Date Spill Entered In Computer Data File: Not reported
Update Date: 05/27/94
Is Updated: False

Tank:
PBS Number: Not reported
Tank Number: Not reported
Tank Size: Not reported
Test Method: Not reported
Leak Rate Failed Tank: Not reported
Gross Leak Rate: Not reported

Material:
Material Class Type: Petroleum
Quantity Spilled: 5
Unkonwn Quantity Spilled: False
Units: Gallons
Quantity Recovered: 5
Unkonwn Quantity Recovered: False
Material: WASTE OIL
Class Type: WASTE OIL
Times Material Entry In File: 9509
CAS Number: Not reported
Last Date: 19940927
Material Class Type: Petroleum
Quantity Spilled: 0
Unkonwn Quantity Spilled: False
Units: Not reported
Quantity Recovered: 0
Unkonwn Quantity Recovered: False
Material: TRANSMISSION FLUID
Class Type: TRANSMISSION FLUID
Times Material Entry In File: 295
CAS Number: Not reported
Last Date: 19940728
DEC Remarks: 05/24/94: MJS SITE INSPECT. FOUND OIL STAIN ON APRON OF DRIVEWAY. RESIDENT NOT HOME. 05/25/94: MJS SITE VISIT - SPOKE W/ RESIDENT. SPILL WAS NOT DELIBERATE. TRANNY LINE LEAKED. SPILL CLEANED UP W/ RAGS AND DISPOSED. RESIDENT HOSED DOWN RESIDUAL.
Remark: TRANSMISSION FLUID LEAKED WHILE WORKING ON CAR

24
NNE
1/4-1/2
0.302 mi.
1596 ft.

NEIGHBOR DUMPING
PIERCE & CASIMIR
BUFFALO, NY

NY Spills **S102177220**
NY Hist Spills **N/A**

Relative:
Higher

Actual:
589 ft.

NY Spills:

Site ID:	119169
Facility Addr2:	Not reported
Facility ID:	9001218
Spill Number:	9001218
Facility Type:	ER
SWIS:	1502
Investigator:	PRINGLE
Referred To:	Not reported
Spill Date:	5/2/1990
Reported to Dept:	5/2/1990
CID:	Not reported
Spill Cause:	Deliberate
Water Affected:	Not reported
Spill Source:	Private Dwelling
Spill Notifier:	Local Agency
Cleanup Ceased:	5/2/1990
Cleanup Meets Std:	True
Last Inspection:	Not reported
Recommended Penalty:	Penalty Not Recommended
UST Trust:	False
Spill Class:	Not reported
Spill Closed Dt:	5/2/1990
Remediation Phase:	0
Date Entered In Computer:	5/23/1990
Spill Record Last Update:	11/29/1990
Spiller Name:	Not reported
Spiller Company:	CITIZEN
Spiller Address:	58 PIERCE STREET
Spiller City,St,Zip:	BUFFALO, NY
Spiller Company:	001
Contact Name:	Not reported
Contact Phone:	Not reported
DEC Region:	9
DER Facility ID:	103521
DEC Memo:	Prior to Sept, 2004 data translation this spill Lead_DEC Field was "MNP" 05/02/90: 5/2/90 MNP NOTIFIED BSA, THEY WILL INSP. & FOLLOWUP, NO FURTHER ACTION NEEDED BY DEC, COMPLETE.
Remarks:	COMPLAINANT SAID NEIGHBOR IS DUMPING USED MOTOR OIL & GASOLINE INTO SEWER

Material:

Site ID:	119169
Operable Unit ID:	939565
Operable Unit:	01
Material ID:	439570
Material Code:	0009
Material Name:	Gasoline
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	0
Units:	Not reported
Recovered:	No
Resource Affected:	Not reported

NEIGHBOR DUMPING (Continued) **S102177220**

Oxygenate:	False
Site ID:	119169
Operable Unit ID:	939565
Operable Unit:	01
Material ID:	439571
Material Code:	0022
Material Name:	Waste Oil/Used Oil
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	0
Units:	Gallons
Recovered:	No
Resource Affected:	Not reported
Oxygenate:	False

Tank Test:

Site ID:	Not reported
Spill Tank Test:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported
Leak Rate:	Not reported
Gross Fail:	Not reported
Modified By:	Not reported
Last Modified:	Not reported
Test Method:	Not reported

NY Hist Spills:

Region of Spill:	9
Spill Number:	9001218
Investigator:	MNP
Caller Name:	Not reported
Caller Agency:	Not reported
Caller Phone:	Not reported
Notifier Name:	Not reported
Notifier Agency:	Not reported
Notifier Phone:	Not reported
Spill Date/Time:	05/02/1990 09:00
Reported to Dept Date/Time:	05/02/90 09:48
SWIS:	14
Spiller Name:	CITIZEN
Spiller Contact:	Not reported
Spiller Phone:	Not reported
Spiller Address:	58 PIERCE STREET
Spiller City,St,Zip:	BUFFALO, NY
Spill Cause:	Deliberate
Reported to Dept:	In Sewer
Water Affected:	Not reported
Spill Source:	09
Spill Notifier:	Local Agency
PBS Number:	Not reported
Cleanup Ceased:	05/02/90
Cleanup Meets Std:	True
Last Inspection:	/ /
Recommended Penalty:	Penalty Not Recommended

NEIGHBOR DUMPING (Continued) **S102177220**

Spiller Cleanup Dt: / /
Enforcement Date: / /
Invstgn Complete: / /
UST Involvement: False
Spill Class: Not reported
Spill Closed Dt: 05/02/90
Corrective Action Plan Submitted: / /
Date Region Sent Summary to Central Office: / /
Date Spill Entered In Computer Data File: 05/23/90
Date Spill Entered In Computer Data File: Not reported
Update Date: 11/29/90
Is Updated: False

Tank:
PBS Number: Not reported
Tank Number: Not reported
Tank Size: Not reported
Test Method: Not reported
Leak Rate Failed Tank: Not reported
Gross Leak Rate: Not reported

Material:
Material Class Type: Petroleum
Quantity Spilled: 0
Unkonwn Quantity Spilled: False
Units: Gallons
Quantity Recovered: 0
Unkonwn Quantity Recovered: False
Material: WASTE OIL
Class Type: WASTE OIL
Times Material Entry In File: 9509
CAS Number: Not reported
Last Date: 19940927
Material Class Type: Petroleum
Quantity Spilled: 0
Unkonwn Quantity Spilled: False
Units: Not reported
Quantity Recovered: 0
Unkonwn Quantity Recovered: False
Material: GASOLINE
Class Type: GASOLINE
Times Material Entry In File: 21329
CAS Number: Not reported
Last Date: 19940929
DEC Remarks: 05/02/90: 5/2/90 MNP NOTIFIED BSA, THEY WILL INSP. FOLLOWUP, NO FURTHER ACTION NEEDED BY DEC, COMPLETE.
Remark: COMPLAINANT SAID NEIGHBOR IS DUMPING USED MOTOR OIL GASOLINE INTO SEWER

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25 South 1/4-1/2 0.307 mi. 1621 ft.

SCOTT RESIDENCE
169 NORMAN AVENUE
BUFFALO, NY 14210

NY Spills **S109827194**
N/A

Relative: Higher

Actual: 588 ft.

NY Spills:
Site ID: 415915
Facility Addr2: Not reported
Facility ID: 0903790
Spill Number: 0903790

SCOTT RESIDENCE (Continued) **S109827194**

Facility Type:	ER
SWIS:	1502
Investigator:	FXGALLEG
Referred To:	Not reported
Spill Date:	6/30/2009
Reported to Dept:	7/1/2009
CID:	Not reported
Spill Cause:	Unknown
Water Affected:	Not reported
Spill Source:	Private Dwelling
Spill Notifier:	Affected Persons
Cleanup Ceased:	Not reported
Cleanup Meets Std:	False
Last Inspection:	Not reported
Recommended Penalty:	Penalty Not Recommended
UST Trust:	False
Spill Class:	Known release with minimal potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt:	7/2/2009
Remediation Phase:	0
Date Entered In Computer:	7/1/2009
Spill Record Last Update:	7/2/2009
Spiller Name:	Not reported
Spiller Company:	Not reported
Spiller Address:	Not reported
Spiller City,St,Zip:	Not reported
Spiller Company:	Not reported
Contact Name:	Not reported
Contact Phone:	Not reported
DEC Region:	9
DER Facility ID:	364991
DEC Memo:	7/1/09 FG SITE INSPECTION. NO ONE WAS HOME. CHECKED THE BACK YARD. BAGS OF SOIL PRESENT. NO ODOR NOTICED. NO EXCAVATIONS EVIDENT. CALLED MR. & MRS. SCOTT AND LEFT MESSAGE TO RETURN CALL. 7/2/09 MRS. SCOTT RETURNED CALL. FG SITE INSPECTION WITH MRS. SCOTT. SHE INDICATED THERE WAS AN ODOR WHICH FG DID NOT NOTICE. FG REFERRED HER TO THE NYSDOH FOR FURTHER ASSISTANCE. NO ACTION BY SPILLS POSSIBLE. SPILL CLOSED. ELECTRONIC FILE ONLY.
Remarks:	MR. SCOTT SAID WHEN HE CAME HOME YESTERDAY, HE OBSERVED A STRONG NOXIOUS ODOR IN HIS BACKYARD. HE SAID HIS MOTHER WAS GARDENING AND NOTED THE ODOR ON HER HANDS. MR. SCOTT COULD NOT SAY IT WAS COMING FROM THE SOIL. HE DID OBSERVE THE ODOR THIS MORNING.

Material:

Site ID:	415915
Operable Unit ID:	1172241
Operable Unit:	01
Material ID:	2164101
Material Code:	0064A
Material Name:	UNKNOWN MATERIAL
Case No.:	Not reported
Material FA:	Other
Quantity:	Not reported
Units:	Not reported
Recovered:	Not reported
Resource Affected:	Not reported
Oxygenate:	False

SCOTT RESIDENCE (Continued) **S109827194**

Tank Test:

Site ID:	Not reported
Spill Tank Test:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported
Leak Rate:	Not reported
Gross Fail:	Not reported
Modified By:	Not reported
Last Modified:	Not reported
Test Method:	Not reported

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26 **POCHRON HOUSE** **NY Spills** **S106698997**
North **255 HOLLY STREET** **N/A**
1/4-1/2 **BUFFALO, NY**
0.321 mi.
1693 ft.

Relative:
Higher

Actual:
589 ft.

NY Spills:

Site ID:	102739
Facility Addr2:	Not reported
Facility ID:	0475279
Spill Number:	0475279
Facility Type:	ER
SWIS:	1502
Investigator:	MXFRANKS
Referred To:	Not reported
Spill Date:	9/7/2004
Reported to Dept:	9/7/2004
CID:	Not reported
Spill Cause:	Unknown
Water Affected:	Not reported
Spill Source:	Unknown
Spill Notifier:	Citizen
Cleanup Ceased:	Not reported
Cleanup Meets Std:	True
Last Inspection:	9/8/2004
Recommended Penalty:	Penalty Not Recommended
UST Trust:	False
Spill Class:	Possible release with minimal potential for fire or hazard or Known release with no damage. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt:	9/9/2004
Remediation Phase:	0
Date Entered In Computer:	9/7/2004
Spill Record Last Update:	9/9/2004
Spiller Name:	KATHY POCHRON
Spiller Company:	KATHY POCHRON
Spiller Address:	255 HOLLY
Spiller City,St,Zip:	BUFFALO, NY
Spiller Company:	001
Contact Name:	KATHY POCHRON
Contact Phone:	(716) 825-2520
DEC Region:	9
DER Facility ID:	90970
DEC Memo:	Prior to Sept, 2004 data translation this spill Lead_DEC Field was

POCHRON HOUSE (Continued) **S106698997**

"MF" 09/07/04: MF S/I/KATHY POCHRON/BFD/BUFFALO HAZ MAT, TOM FITZPACTRICK, ET AL. COMPLAINT OF A PETROLEUM ODOR FROM THE BASEMENT OF THIS HOME. THE GAS COMPANY & THE SEWER DEPT HAD PREVIOUSLY BEEN ON SITE. THE SEWER DEPT FLUSHED THE SEWERS, THE GAS CO DID NOT FIND ANY NATURAL GAS LEAKS. THE HAZ MAT TEAM CHECKED THE BASEMENT WITH ALL THE METERING THEY GOT. NO READINGS. HAZ MAT TEAM WENT IN WITH LEVEL B. UNABLE TO FIND THE SOURCE OF THE ODOR. HOMEOWNER ADVISED TO KEEP BASEMENT WINDOWS OPEN. I WILL INSPECT IN THE AM. 09/08/04: MF S/I/NOOS, MESSAGE FOR ME THAT THEY FOUND A LEAKING CONTAINER OF SPECTICIDE. T/C GLEN RHINEHART, PESTICIDES. SPECTICIDE IS AN OVER THE COUNTER PESTICIDE THAT HAS A BAD ODOR. IT USE WAS DISCONTINUED DUE TO THIS. T/C KATHY P, SEE WILL DISPOSE OF MATERIAL SATURDAY WHEN BUFFALO HAS A HAZ WASTE PICKUP. NO FURTHER ACTION NECESSARY.

Remarks: caller claims unknown type odor, may be pertoleum started this am.
national fuel gas says its not their problem

Material:

Site ID:	102739
Operable Unit ID:	891693
Operable Unit:	01
Material ID:	486267
Material Code:	0064A
Material Name:	UNKNOWN MATERIAL
Case No.:	Not reported
Material FA:	Other
Quantity:	0
Units:	Gallons
Recovered:	No
Resource Affected:	Not reported
Oxygenate:	False

Tank Test:

Site ID:	Not reported
Spill Tank Test:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported
Leak Rate:	Not reported
Gross Fail:	Not reported
Modified By:	Not reported
Last Modified:	Not reported
Test Method:	Not reported

27
SSW
1/4-1/2
0.331 mi.
1748 ft.

LEAKING PRIVATE AUTO
88 WEYAND AVENUE
BUFFALO, NY

NY Spills **S103275009**
NY Hist Spills **N/A**

Relative:
Higher

Actual:
587 ft.

NY Spills:

Site ID:	185408
Facility Addr2:	Not reported
Facility ID:	9803027
Spill Number:	9803027
Facility Type:	ER
SWIS:	1502
Investigator:	JFOTTO

LEAKING PRIVATE AUTO (Continued) **S103275009**

Referred To:	Not reported
Spill Date:	6/1/1998
Reported to Dept:	6/5/1998
CID:	999
Spill Cause:	Equipment Failure
Water Affected:	Not reported
Spill Source:	Passenger Vehicle
Spill Notifier:	Citizen
Cleanup Ceased:	Not reported
Cleanup Meets Std:	True
Last Inspection:	6/9/1998
Recommended Penalty:	Penalty Not Recommended
UST Trust:	False
Spill Class:	Possible release with minimal potential for fire or hazard or Known release with no damage. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt:	6/9/1998
Remediation Phase:	0
Date Entered In Computer:	6/8/1998
Spill Record Last Update:	6/18/1998
Spiller Name:	Not reported
Spiller Company:	MORRY PERRY
Spiller Address:	Not reported
Spiller City,St,Zip:	ZZ
Spiller Company:	001
Contact Name:	Not reported
Contact Phone:	Not reported
DEC Region:	9
DER Facility ID:	155060
DEC Memo:	Prior to Sept, 2004 data translation this spill Lead_DEC Field was "JFO" 06/05/98 JFO ON SCENE, 5 OIL SPOTS ON STREET FROM LEAKING CAR. CAR NOT ON STREET. SPOKE WITH TENANT RESIDING AT ADDRESS. CAR BELONGS TO HER BOYFRIEND. LEFT MY CARD AND ASKED TO HAVE HIM CALL. 06/09/98 JFO ON SITE SPOKE WITH MORRY PERRY (OWNER OF VEHICLE), EXPLAINED TO HIM THAT HE MUST CLEANUP SPOTTED AREAS ON STREET. HE WILL BE GETTING HIS CAR FIXED THIS WEEK. NO FURTHER ACTION CLOSED.
Remarks:	car (white ford #v690rx) leaking oil all over roadway.

Material:

Site ID:	185408
Operable Unit ID:	1063683
Operable Unit:	01
Material ID:	321350
Material Code:	0022
Material Name:	Waste Oil/Used Oil
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	0
Units:	Gallons
Recovered:	No
Resource Affected:	Not reported
Oxygenate:	False

Tank Test:

Site ID:	Not reported
Spill Tank Test:	Not reported
Tank Number:	Not reported

LEAKING PRIVATE AUTO (Continued) **S103275009**

Tank Size: Not reported
Test Method: Not reported
Leak Rate: Not reported
Gross Fail: Not reported
Modified By: Not reported
Last Modified: Not reported
Test Method: Not reported

NY Hist Spills:
Region of Spill: 9
Spill Number: 9803027
Investigator: JFO
Caller Name: Not reported
Caller Agency: Not reported
Caller Phone: Not reported
Notifier Name: Not reported
Notifier Agency: Not reported
Notifier Phone: Not reported
Spill Date/Time: 06/01/1998 12:00
Reported to Dept Date/Time: 06/05/98 13:25
SWIS: 14
Spiller Name: MORRY PERRY
Spiller Contact: Not reported
Spiller Phone: Not reported
Spiller Address: Not reported
Spiller City,St,Zip: Not reported
Spill Cause: Equipment Failure
Reported to Dept: On Land
Water Affected: Not reported
Spill Source: 06
Spill Notifier: Citizen
PBS Number: Not reported
Cleanup Ceased: / /
Cleanup Meets Std: True
Last Inspection: 06/09/98
Recommended Penalty: Penalty Not Recommended
Spiller Cleanup Dt: / /
Enforcement Date: / /
Invstgn Complete: / /
UST Involvement: False
Spill Class: Possible release with minimal potential for fire or hazard or Known release with no damage. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt: 06/09/98
Corrective Action Plan Submitted: / /
Date Region Sent Summary to Central Office: / /
Date Spill Entered In Computer Data File: 06/08/98
Date Spill Entered In Computer Data File: Not reported
Update Date: 06/18/98
Is Updated: False

Tank:
PBS Number: Not reported
Tank Number: Not reported
Tank Size: Not reported
Test Method: Not reported

LEAKING PRIVATE AUTO (Continued) **S103275009**

Leak Rate Failed Tank: Not reported
Gross Leak Rate: Not reported

Material:
Material Class Type: Petroleum
Quantity Spilled: 0
Unkonwn Quantity Spilled: True
Units: Gallons
Quantity Recovered: 0
Unkonwn Quantity Recovered: False
Material: WASTE OIL
Class Type: WASTE OIL
Times Material Entry In File: 9509
CAS Number: Not reported
Last Date: 19940927
DEC Remarks: 06/05/98 JFO ON SCENE, 5 OIL SPOTS ON STREET FROM LEAKING CAR. CAR NOT ON STREET. SPOKE WITH TENANT RESIDING AT ADDRESS. CAR BELONGS TO HER BOYFRIEND. LEFT MY CARD AND ASKED TO HAVE HIM CALL. 06/09/98 JFO ON SITE SPOKE WITH MORRY PERRY OWNER OF VEHICLE), EXPLAINED TO HIM THAT HE MUST CLEANUP SPOTTED AREAS ON STREET. HE WILL BE GETTING HIS CAR FIXED THIS WEEK. NO FURTHER ACTION CLOSED.
Remark: car white ford v690rx) leaking oil all over roadway.

F28 **IN DRIVEWAY & GROUND** **NY Spills** **S110043836**
SSW **63 RYAN ST.** **N/A**
1/4-1/2 **BUFFALO, NY**
0.334 mi.
1761 ft. **Site 2 of 2 in cluster F**

Relative:
Higher

Actual:
586 ft.

NY Spills:
Site ID: 420247
Facility Addr2: Not reported
Facility ID: 0907705
Spill Number: 0907705
Facility Type: ER
SWIS: 1502
Investigator: TDJOHNSO
Referred To: Not reported
Spill Date: 10/8/2009
Reported to Dept: 10/8/2009
CID: Not reported
Spill Cause: Housekeeping
Water Affected: Not reported
Spill Source: Private Dwelling
Spill Notifier: Citizen
Cleanup Ceased: Not reported
Cleanup Meets Std: False
Last Inspection: Not reported
Recommended Penalty: Penalty Not Recommended
UST Trust: False
Spill Class: Possible release with minimal potential for fire or hazard or Known release with no damage. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt: 10/13/2009
Remediation Phase: 0
Date Entered In Computer: 10/8/2009
Spill Record Last Update: 10/13/2009
Spiller Name: Not reported

IN DRIVEWAY & GROUND (Continued) **S110043836**

Spiller Company: PERSON LIVING UPSTAIRS
Spiller Address: 63 RYAN ST.
Spiller City,St,Zip: BUFFALO, NY
Spiller Company: 999
Contact Name: Not reported
Contact Phone: Not reported
DEC Region: 9
DER Facility ID: 369271
DEC Memo: 10/13/09 TDJ WENT TO RESIDENCE AND FOUND THAT OIL HAS BEEN REMOVED AFTER HOMEOWNER TOLD TENANT TO DISPOSE OF JUGS FROM OIL CHANGE. MINIMAL RESIDUAL OIL ON SOIL WILL BE SCRAPED BY OWNER. NO FURTHER ACTION FILE CLOSED TO ELECTRONIC ONLY
Remarks: CALLER SAID THAT HIS NEIGHBOR AT 63 RYAN ST. HAS JUGS OF WASTE OIL,FROM OIL CHANGES,ON THE PROPERTY AND SOME ARE LEAKING ONTO THE GROUND.

Material:
Site ID: 420247
Operable Unit ID: 1176226
Operable Unit: 01
Material ID: 2168887
Material Code: 0022
Material Name: Waste Oil/Used Oil
Case No.: Not reported
Material FA: Petroleum
Quantity: Not reported
Units: Gallons
Recovered: Not reported
Resource Affected: Not reported
Oxygenate: False

Tank Test:
Site ID: Not reported
Spill Tank Test: Not reported
Tank Number: Not reported
Tank Size: Not reported
Test Method: Not reported
Leak Rate: Not reported
Gross Fail: Not reported
Modified By: Not reported
Last Modified: Not reported
Test Method: Not reported

G29 **WEST SENECA COMPOSTING FACILITY** **SWF/LF** **S105912742**
East **500 MINERAL SPRINGS ROAD** **N/A**
1/4-1/2 **WEST SENECA, NY 14224**
0.335 mi.
1768 ft. **Site 1 of 2 in cluster G**

Relative:
Higher

Actual:
589 ft.

SWF/LF:
Flag: ACTIVE
Region Code: 9
Phone Number: 7166745600
Owner Name: Town of West Seneca
Owner Type: Municipal
Owner Address: 39 South Avenue
Owner Addr2: Not reported

WEST SENECA COMPOSTING FACILITY (Continued) **S105912742**

Owner City,St,Zip:	West Seneca, NY 14224
Owner Email:	pfinnega@twsny.org
Owner Phone:	7166744850
Contact Name:	Not reported
Contact Address:	Not reported
Contact Addr2:	Not reported
Contact City,St,Zip:	Not reported
Contact Email:	Not reported
Contact Phone:	Not reported
Activity Desc:	Composting - yard waste - registered
Activity Number:	15Y01
Active:	Yes
East Coordinate:	190024
North Coordinate:	4752754
Accuracy Code:	4.2 - Utilization of GIS and existing spatial data
Regulatory Status:	Registration
Waste Type:	Yard Waste;Wood (Chips)
Authorization #:	15Y01
Authorization Date:	2/17/2004
Expiration Date:	Not reported

G30 **TRANSFER STATION** **NY Spills** **S108298066**
East **500 MINERAL SPRINGS ROAD** **N/A**
1/4-1/2 **WEST SENECA, NY**
0.337 mi.
1779 ft. **Site 2 of 2 in cluster G**

Relative:
Higher

Actual:
589 ft.

NY Spills:

Site ID:	373025
Facility Addr2:	Not reported
Facility ID:	0651465
Spill Number:	0651465
Facility Type:	ER
SWIS:	1568
Investigator:	SACALAND
Referred To:	Not reported
Spill Date:	11/3/2006
Reported to Dept:	11/3/2006
CID:	Not reported
Spill Cause:	Human Error
Water Affected:	Not reported
Spill Source:	Institutional, Educational, Gov., Other
Spill Notifier:	Responsible Party
Cleanup Ceased:	Not reported
Cleanup Meets Std:	True
Last Inspection:	Not reported
Recommended Penalty:	Penalty Not Recommended
UST Trust:	False
Spill Class:	Possible release with minimal potential for fire or hazard or Known release with no damage. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt:	11/3/2006
Remediation Phase:	0
Date Entered In Computer:	11/3/2006
Spill Record Last Update:	11/3/2006
Spiller Name:	MIKE KERL
Spiller Company:	TOWN OF WEST SENECA
Spiller Address:	1250 UNION ROAD

TRANSFER STATION (Continued) **S108298066**

Spiller City,St,Zip: WEST SENECA, NY 14224
Spiller Company: 001
Contact Name: MIKE KERL
Contact Phone: (716) 570-8794
DEC Region: 9
DER Facility ID: 322752
DEC Memo: 11/3/06:SAC TELECON MIKE KERL - TOWN OF WEST SENECA DISASTER COORDINATOR. WEST SENECA FIRE DEPT. RESPONDED W/ABSORBENTS TO CONTAIN SPILL AND OIL CHANGE PAN WAS PLACED UNDERNEATH TO CATCH ANY FURTHER PRODUCT THAT WOULD DRIP. TOWN AND UNION CONCRETE TO DEAL WITH THE DISPOSAL. SMALL AMOUNT OF MATERIAL GENERATED. SMALL NUISANCE SPILL. NO FURTHER WORK REQUIRED. COMPUTER FILE ONLY - NO PAPER FILE.
Remarks: WHILE WORKING ON A DEBRIS PILE, A TRACK EXCAVATOR FLIPPED OVER. FUEL SYSTEM IS IN TACT BUT SOME FUEL DID DRIP OUT DUE TO THE ORIENTATION OF THE EQUIPMENT. MACHINE BELONGS TO UNION CONCRETE.

Material:
Site ID: 373025
Operable Unit ID: 1130751
Operable Unit: 01
Material ID: 2120421
Material Code: 0008
Material Name: Diesel
Case No.: Not reported
Material FA: Petroleum
Quantity: 1
Units: Gallons
Recovered: Yes
Resource Affected: Not reported
Oxygenate: False

Tank Test:
Site ID: Not reported
Spill Tank Test: Not reported
Tank Number: Not reported
Tank Size: Not reported
Test Method: Not reported
Leak Rate: Not reported
Gross Fail: Not reported
Modified By: Not reported
Last Modified: Not reported
Test Method: Not reported

31
SW
1/4-1/2
0.358 mi.
1890 ft.

Relative:
Higher

Actual:
584 ft.

GOVOLA DUMPING **NY Spills S102178360**
12 ROANOKE PARKWAY **NY Hist Spills N/A**
BUFFALO, NY

NY Spills:
Site ID: 159265
Facility Addr2: Not reported
Facility ID: 9313163
Spill Number: 9313163
Facility Type: ER
SWIS: 1502
Investigator: RMCROSSE

GOVOLA DUMPING (Continued) **S102178360**

Referred To:	Not reported
Spill Date:	2/2/1994
Reported to Dept:	2/4/1994
CID:	Not reported
Spill Cause:	Deliberate
Water Affected:	Not reported
Spill Source:	Private Dwelling
Spill Notifier:	Affected Persons
Cleanup Ceased:	2/15/1994
Cleanup Meets Std:	True
Last Inspection:	2/15/1994
Recommended Penalty:	Penalty Not Recommended
UST Trust:	False
Spill Class:	No spill occured. No DEC Response. No corrective action required.
Spill Closed Dt:	3/11/1994
Remediation Phase:	0
Date Entered In Computer:	2/7/1994
Spill Record Last Update:	3/24/1994
Spiller Name:	Not reported
Spiller Company:	GOVOLA
Spiller Address:	12 ROANOKE PARKWAY
Spiller City,St,Zip:	BUFFALO, NY 14210
Spiller Company:	001
Contact Name:	Not reported
Contact Phone:	Not reported
DEC Region:	9
DER Facility ID:	134529
DEC Memo:	Prior to Sept, 2004 data translation this spill Lead_DEC Field was "RMC" 02/15/94: RMC/SITE NO PROBLEM FOUND, NO ONE HOME, NO ACTION REQUIRED, CLOSE OUT.
Remarks:	NEIGHBOR POURED GASOLINE FROM FUEL FILTER ONTO GROUND BETWEEN HOUSES CAUSING FUMES IN CALLER'S HOUSE.

Material:

Site ID:	159265
Operable Unit ID:	991613
Operable Unit:	01
Material ID:	388556
Material Code:	0009
Material Name:	Gasoline
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	0
Units:	Not reported
Recovered:	No
Resource Affected:	Not reported
Oxygenate:	False

Tank Test:

Site ID:	Not reported
Spill Tank Test:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported
Leak Rate:	Not reported
Gross Fail:	Not reported
Modified By:	Not reported

GOVOLA DUMPING (Continued) **S102178360**

Last Modified: Not reported
Test Method: Not reported

NY Hist Spills:
Region of Spill: 9
Spill Number: 9313163
Investigator: RMC
Caller Name: Not reported
Caller Agency: Not reported
Caller Phone: Not reported
Notifier Name: Not reported
Notifier Agency: Not reported
Notifier Phone: Not reported
Spill Date/Time: 02/02/1994 12:00
Reported to Dept Date/Time: 02/04/94 15:30
SWIS: 14
Spiller Name: GOVOLA
Spiller Contact: Not reported
Spiller Phone: (716) 825-4740
Spiller Address: 12 ROANOKE PARKWAY
Spiller City,St,Zip: BUFFALO, NY 14210
Spill Cause: Deliberate
Reported to Dept: Air
Water Affected: Not reported
Spill Source: 09
Spill Notifier: Affected Persons
PBS Number: Not reported
Cleanup Ceased: 02/15/94
Cleanup Meets Std: True
Last Inspection: 02/15/94
Recommended Penalty: Penalty Not Recommended
Spiller Cleanup Dt: / /
Enforcement Date: / /
Invstgn Complete: / /
UST Involvement: False
Spill Class: No spill occured. No DEC Response. No corrective action required.
Spill Closed Dt: 03/11/94
Corrective Action Plan Submitted: / /
Date Region Sent Summary to Central Office: / /
Date Spill Entered In Computer Data File: 02/07/94
Date Spill Entered In Computer Data File: Not reported
Update Date: 03/24/94
Is Updated: False

Tank:
PBS Number: Not reported
Tank Number: Not reported
Tank Size: Not reported
Test Method: Not reported
Leak Rate Failed Tank: Not reported
Gross Leak Rate: Not reported

Material:
Material Class Type: Petroleum
Quantity Spilled: 0
Unkonwn Quantity Spilled: True
Units: Not reported

GOVOLA DUMPING (Continued) **S102178360**

Quantity Recovered: 0
Unkonwn Quantity Recovered: True
Material: GASOLINE
Class Type: GASOLINE
Times Material Entry In File: 21329
CAS Number: Not reported
Last Date: 19940929
DEC Remarks: 02/15/94: RMC/SITE NO PROBLEM FOUND, NO ONE HOME, NO ACTION REQUIRED, CLOSE OUT.
Remark: NEIGHBOR POURED GASOLINE FROM FUEL FILTER ONTO GROUND BETWEEN HOUSES CAUSING FUMES IN CALLER S HOUSE.

32
WSW
1/4-1/2
0.370 mi.
1951 ft.

ANTIFREEZE IN ROAD
70 JUNIATA PLACE
BUFFALO, NY

NY Spills **S104653905**
NY Hist Spills **N/A**

Relative:
Higher

Actual:
582 ft.

NY Spills:
Site ID: 106226
Facility Addr2: Not reported
Facility ID: 0003529
Spill Number: 0003529
Facility Type: ER
SWIS: 1502
Investigator: SORGI
Referred To: Not reported
Spill Date: 6/21/2000
Reported to Dept: 6/21/2000
CID: 252
Spill Cause: Deliberate
Water Affected: Not reported
Spill Source: Passenger Vehicle
Spill Notifier: Citizen
Cleanup Ceased: Not reported
Cleanup Meets Std: True
Last Inspection: Not reported
Recommended Penalty: Penalty Not Recommended
UST Trust: False
Spill Class: Possible release with minimal potential for fire or hazard or Known release with no damage. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt: 8/22/2000
Remediation Phase: 0
Date Entered In Computer: 6/21/2000
Spill Record Last Update: 9/5/2000
Spiller Name: Not reported
Spiller Company: RESIDENT
Spiller Address: 70 JUNIATA PLACE
Spiller City,St,Zip: BUFFALO, NY -
Spiller Company: 001
Contact Name: Not reported
Contact Phone: Not reported
DEC Region: 9
DER Facility ID: 93610
DEC Memo: Prior to Sept, 2004 data translation this spill Lead_DEC Field was "MJS" 06/22/00: MJS TELECON WITH ADAM HAKKY. EXPLAINED TO HIM THAT SPILL RESPONSE WILL HAVE NO INVOLVEMENT AT THIS TIME BECAUSE SPILL

ANTIFREEZE IN ROAD (Continued) **S104653905**

ALREADY CLEANED UP BY FIRE DEPT. MJS REFERRED SPILL TO LAW ENFORCEMENT BECAUSE SPILL WAS DELIBERATE, POSSIBLE PENALTY/TICKET. 08/22/00: MJS REVIEW FILE. NO FURTHER ACTION NECESSARY BY SPILL UNIT. MJS CLOSE FILE.

Remarks: CALLER STATES TENANT UNK NAME THAT LIVES ABOVE HIM WAS FLUSHING HIS ANTIFREEZE FROM HIS SUV WHICH ENDED UP IN A PUDDLE IN THE ROAD. NEIGHBOR WITNESSED THIS AND CALLED FIRE DEPT WHO CAME AND CLEANED IT UP. CALLER WISHES TO NOT HAVE HIS NAME MENTIONED.

Material:

Site ID:	106226
Operable Unit ID:	825915
Operable Unit:	01
Material ID:	551853
Material Code:	0043A
Material Name:	ANTIFREEZE
Case No.:	Not reported
Material FA:	Other
Quantity:	3
Units:	Gallons
Recovered:	3
Resource Affected:	Not reported
Oxygenate:	False

Tank Test:

Site ID:	Not reported
Spill Tank Test:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported
Leak Rate:	Not reported
Gross Fail:	Not reported
Modified By:	Not reported
Last Modified:	Not reported
Test Method:	Not reported

NY Hist Spills:

Region of Spill:	9
Spill Number:	0003529
Investigator:	MJS
Caller Name:	Not reported
Caller Agency:	Not reported
Caller Phone:	Not reported
Notifier Name:	Not reported
Notifier Agency:	Not reported
Notifier Phone:	Not reported
Spill Date/Time:	06/21/2000 18:00
Reported to Dept Date/Time:	06/21/00 20:41
SWIS:	14
Spiller Name:	RESIDENT
Spiller Contact:	Not reported
Spiller Phone:	( ) -
Spiller Phone:	( ) -
Spiller Address:	70 JUNIATA PLACE
Spiller City,St,Zip:	BUFFALO, NY -
Spill Cause:	Deliberate

ANTIFREEZE IN ROAD (Continued) **S104653905**

Reported to Dept: On Land
Water Affected: Not reported
Spill Source: 06
Spill Notifier: Citizen
PBS Number: Not reported
Cleanup Ceased: / /
Cleanup Meets Std: True
Last Inspection: / /
Recommended Penalty: Penalty Not Recommended
Spiller Cleanup Dt: / /
Enforcement Date: / /
Invstgn Complete: / /
UST Involvement: False
Spill Class: Possible release with minimal potential for fire or hazard or Known release with no damage. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt: 08/22/00
Corrective Action Plan Submitted: / /
Date Region Sent Summary to Central Office: / /
Date Spill Entered In Computer Data File: 06/21/00
Date Spill Entered In Computer Data File: Not reported
Update Date: 09/05/00
Is Updated: False

Tank:
PBS Number: Not reported
Tank Number: Not reported
Tank Size: Not reported
Test Method: Not reported
Leak Rate Failed Tank: Not reported
Gross Leak Rate: Not reported

Material:
Material Class Type: Hazardous Material
Quantity Spilled: 3
Unkonwn Quantity Spilled: False
Units: Gallons
Quantity Recovered: 3
Unkonwn Quantity Recovered: False
Material: ANTIFREEZE
Class Type: ANTIFREEZE
Times Material Entry In File: 0
CAS Number: Not reported
Last Date: Not reported
DEC Remarks: 06/22/00: MJS TELECON WITH ADAM HAKKY. EXPLAINED TO HIM THAT SPILL RESPONSE WILL HAVE NO INVOLVEMENT AT THIS TIME BECAUSE SPILL ALREADY CLEANED UP BY FIRE DEPT. MJS REFERRED SPILL TO LAW ENFORCEMENT BECAUSE SPILL WAS DELIBERATE, POSSIBLE PENALTY/TICKET. 08/22/00: MJS REVIEW FILE. NO FURTHER ACTION NECESSARY BY SPILL UNIT. MJS CLOSE FILE.
Remark: CALLER STATES TENANT UNK NAME THAT LIVES ABOVE HIM WAS FLUSHING HIS ANTIFREEZE FROM HIS SUV WHICH ENDED UP IN A PUDDLE IN THE ROAD. NEIGHBOR WITNESSED THIS AND CALLED FIRE DEPT WHO CAME AND CLEANED IT UP. CALLER WISHES TO NOT HAVE HIS NAME MENTIONED.

33
NNW
1/4-1/2
0.375 mi.
1979 ft.

OIL DUMPING AT DUNN HOUSE
102 WEISS AVENUE
BUFFALO, NY

NY Spills **S102667930**
NY Hist Spills **N/A**

Relative:
Higher

Actual:
592 ft.

NY Spills:

Site ID:	293876
Facility Addr2:	Not reported
Facility ID:	9707089
Spill Number:	9707089
Facility Type:	ER
SWIS:	1502
Investigator:	COOKE
Referred To:	Not reported
Spill Date:	9/1/1997
Reported to Dept:	9/15/1997
CID:	999
Spill Cause:	Deliberate
Water Affected:	Not reported
Spill Source:	Private Dwelling
Spill Notifier:	Citizen
Cleanup Ceased:	Not reported
Cleanup Meets Std:	True
Last Inspection:	9/17/1997
Recommended Penalty:	Penalty Not Recommended
UST Trust:	False
Spill Class:	No spill occured. No DEC Response. No corrective action required.
Spill Closed Dt:	9/17/1997
Remediation Phase:	0
Date Entered In Computer:	9/15/1997
Spill Record Last Update:	9/24/1997
Spiller Name:	Not reported
Spiller Company:	none
Spiller Address:	Not reported
Spiller City,St,Zip:	NY
Spiller Company:	999
Contact Name:	Not reported
Contact Phone:	Not reported
DEC Region:	9
DER Facility ID:	237811
DEC Memo:	Prior to Sept, 2004 data translation this spill Lead_DEC Field was "JDC" 9/17/97: JDC ON SITE AND MET W/ TENANT MR JAMES DUNN, HE WAS UNAWARE OF ANY OIL SPILLAGE ON THE PROPERTY. INSPECED YARD AND AREA AROUND STORAGE SHED AND FOUND NO EVIDENCE OF OIL SPILLAGE. NO FURTHER ACTION REQUIRED, SITE CLOSED.
Remarks:	RP DELIBERATELY DUMPS OIL IN HIS BACKYARD

Material:

Site ID:	293876
Operable Unit ID:	1053317
Operable Unit:	01
Material ID:	332664
Material Code:	0022
Material Name:	Waste Oil/Used Oil
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	0
Units:	Gallons
Recovered:	No

OIL DUMPING AT DUNN HOUSE (Continued) **S102667930**

Resource Affected: Not reported
Oxygenate: False

Tank Test:
Site ID: Not reported
Spill Tank Test: Not reported
Tank Number: Not reported
Tank Size: Not reported
Test Method: Not reported
Leak Rate: Not reported
Gross Fail: Not reported
Modified By: Not reported
Last Modified: Not reported
Test Method: Not reported

NY Hist Spills:
Region of Spill: 9
Spill Number: 9707089
Investigator: JDC
Caller Name: Not reported
Caller Agency: Not reported
Caller Phone: Not reported
Notifier Name: Not reported
Notifier Agency: Not reported
Notifier Phone: Not reported
Spill Date/Time: 09/01/1997 12:00
Reported to Dept Date/Time: 09/15/97 13:45
SWIS: 14
Spiller Name: NONE
Spiller Contact: Not reported
Spiller Phone: ( ) -
Spiller Phone: ( ) -
Spiller Address: Not reported
Spiller City,St,Zip: Not reported
Spill Cause: Deliberate
Reported to Dept: On Land
Water Affected: Not reported
Spill Source: 09
Spill Notifier: Citizen
PBS Number: Not reported
Cleanup Ceased: / /
Cleanup Meets Std: True
Last Inspection: 09/17/97
Recommended Penalty: Penalty Not Recommended
Spiller Cleanup Dt: / /
Enforcement Date: / /
Invstgn Complete: / /
UST Involvement: False
Spill Class: No spill occured. No DEC Response. No corrective action required.
Spill Closed Dt: 09/17/97
Corrective Action Plan Submitted: / /
Date Region Sent Summary to Central Office: / /
Date Spill Entered In Computer Data File: 09/15/97
Date Spill Entered In Computer Data File: Not reported
Update Date: 09/24/97

OIL DUMPING AT DUNN HOUSE (Continued) **S102667930**

Is Updated: False

Tank:
PBS Number: Not reported
Tank Number: Not reported
Tank Size: Not reported
Test Method: Not reported
Leak Rate Failed Tank: Not reported
Gross Leak Rate: Not reported

Material:
Material Class Type: Petroleum
Quantity Spilled: 0
Unkonwn Quantity Spilled: False
Units: Gallons
Quantity Recovered: 0
Unkonwn Quantity Recovered: False
Material: WASTE OIL
Class Type: WASTE OIL
Times Material Entry In File: 9509
CAS Number: Not reported
Last Date: 19940927
DEC Remarks: 9/17/97: JDC ON SITE AND MET W/ TENANT MR JAMES DUNN, HE WAS UNAWARE OF ANY OIL SPILLAGE ON THE PROPERTY. INSPECED YARD AND AREA AROUND STORAGE SHED AND FOUND NO EVIDENCE OF OIL SPILLAGE. NO FURTHER ACTION REQUIRED, SITE CLOSED.
Remark: RP DELIBERATELY DUMPS OIL IN HIS BACKYARD

34
SSW
1/4-1/2
0.376 mi.
1984 ft.

POLE 37R
37 HAYDEN ST
BUFFALO, NY

NY Spills **S106003908**
N/A

Relative:
Higher

Actual:
586 ft.

NY Spills:
Site ID: 112487
Facility Addr2: Not reported
Facility ID: 0201966
Spill Number: 0201966
Facility Type: ER
SWIS: 1502
Investigator: MXFRANKS
Referred To: Not reported
Spill Date: 5/23/2002
Reported to Dept: 5/24/2002
CID: 312
Spill Cause: Equipment Failure
Water Affected: Not reported
Spill Source: Commercial/Industrial
Spill Notifier: Responsible Party
Cleanup Ceased: Not reported
Cleanup Meets Std: True
Last Inspection: 5/29/2002
Recommended Penalty: Penalty Not Recommended
UST Trust: False
Spill Class: Known release with minimal potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt: 9/11/2002
Remediation Phase: 0
Date Entered In Computer: 5/24/2002

POLE 37R (Continued) **S106003908**

Spill Record Last Update:	9/11/2002
Spiller Name:	FRANK GRABOWSKI
Spiller Company:	NIAGARA MOHAWK
Spiller Address:	7437 HENRY CLAY BLVD
Spiller City,St,Zip:	LIVERPOOL, NY 13088-
Spiller Company:	001
Contact Name:	MRS. WILLIAM MOORE
Contact Phone:	(716) 825-1971
DEC Region:	9
DER Facility ID:	98255
DEC Memo:	Prior to Sept, 2004 data translation this spill Lead_DEC Field was "MF" 05/25/02: MF S/I AT 37 HAYDEN NO ONE HOME. LOOKED OVER AREA, NO SIGN OF SPILLAGE. NO TRANSFORMER ON POLE. T/C NIMO, TRANSFORMER NOT REPLACED ON THIS POLE. 05/27/02: MF S/I, 37 HAYDEN NO ONE HOME. LEFT CARD. 05/28/02: MF T/C FRANK GRABOWSKI, THE POLE THAT HAD A PROBLEM IS 34R NOT 37R. POLE MOST LIKELY IN THE BACK YARD OF 34 HAYDEN. SPILL REPORT GAVE SPILL ADDRESS AS 37 HAYDEN. 05/29/02: MF S/I/MRS. MOORE, OWNER OF THE PROPERTY. THE SOIL IN AN APPX 5' DIAMETER AREA HAS BEEN REMOVED. MRS. MOORE TOLD ME THE POLE TRANSFORMER WAS DRIPPING FLUID ON HER SO SHE CALLED NIMO. SHE WANTED TO KNOW IF IT IS SAFE & IF NIMO WILL PLANT HER FLOWERS AS SHE IS 82 YEARS OLD. 05/31/02: MF FAX FROM FRANK GRABOWSKI, NI MO. TEST RESULTS, NON-PCB, 23.6 PPM. DISPOSAL RECEIPT TO FOLLOW. 07/08/02: MF 1ST DISPOSAL LETTER, DUE 7/26/02. 07/21/02: MF RECEIVED DISPOSAL RECEIPT. NO FURTHER ACTION NECESSARY.
Remarks:	spill due to age of equipment - cleaned up- rear yard of address - field test showed positive for pcb - Gerard Palumbo advised

Material:

Site ID:	112487
Operable Unit ID:	852885
Operable Unit:	01
Material ID:	523375
Material Code:	0017A
Material Name:	PCB OIL
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	5
Units:	Gallons
Recovered:	5
Resource Affected:	Not reported
Oxygenate:	False

Tank Test:

Site ID:	Not reported
Spill Tank Test:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported
Leak Rate:	Not reported
Gross Fail:	Not reported
Modified By:	Not reported
Last Modified:	Not reported
Test Method:	Not reported

H35 **WASTE OIL DUMPING** **NY Spills S103484692**
NNW **57 FREDRO STREET** **NY Hist Spills N/A**
1/4-1/2 **BUFFALO, NY**
0.377 mi.
1989 ft. **Site 1 of 2 in cluster H**

Relative:
Higher

Actual:
590 ft.

NY Spills:

Site ID:	192086
Facility Addr2:	Not reported
Facility ID:	9875051
Spill Number:	9875051
Facility Type:	ER
SWIS:	1502
Investigator:	JFOTTO
Referred To:	Not reported
Spill Date:	9/1/1998
Reported to Dept:	9/22/1998
CID:	Not reported
Spill Cause:	Housekeeping
Water Affected:	Not reported
Spill Source:	Private Dwelling
Spill Notifier:	Citizen
Cleanup Ceased:	Not reported
Cleanup Meets Std:	True
Last Inspection:	9/23/1998
Recommended Penalty:	Penalty Not Recommended
UST Trust:	False
Spill Class:	Possible release with minimal potential for fire or hazard or Known release with no damage. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt:	9/23/1998
Remediation Phase:	0
Date Entered In Computer:	9/22/1998
Spill Record Last Update:	11/6/1998
Spiller Name:	Not reported
Spiller Company:	RICHARD CARNES
Spiller Address:	57 FREDRO STREET
Spiller City,St,Zip:	BUFFALO, NY
Spiller Company:	001
Contact Name:	Not reported
Contact Phone:	Not reported
DEC Region:	9
DER Facility ID:	160187
DEC Memo:	Prior to Sept, 2004 data translation this spill Lead_DEC Field was "JFO" 09/23/98 JFO SITE VISIT. MET W/TENANT, MRS CARNES, SHE GAVE ME PERMISSION TO CHECK BACKYARD. FOUND SMALL AREA WHERE OIL WAS DUMPED. TELCON WITH HER HUSBAND RICH CARNES. HE CLAIMS THAT HE DID NOT DUMP OIL AND THAT HE HAS BEEN HAVING PROBLEMS WITH A NEIGHBOR. HE WILL REMOVE CONTAMINATED SOIL AND DISPOSE IN GARBAGE. SENT "WASTE OIL TO CITIZEN LETTER". NO FURTHER ACTION REQUIRED. CLOSED
Remarks:	TENANT ALLEGEDLY DUMPING USED MOTOR OIL BEHIND SHED NEAR FENCE.

Material:

Site ID:	192086
Operable Unit ID:	1074643
Operable Unit:	01
Material ID:	306628
Material Code:	0022
Material Name:	Waste Oil/Used Oil
Case No.:	Not reported

WASTE OIL DUMPING (Continued) S103484692

Material FA: Petroleum
Quantity: 0
Units: Gallons
Recovered: No
Resource Affected: Not reported
Oxygenate: False

Tank Test:
Site ID: Not reported
Spill Tank Test: Not reported
Tank Number: Not reported
Tank Size: Not reported
Test Method: Not reported
Leak Rate: Not reported
Gross Fail: Not reported
Modified By: Not reported
Last Modified: Not reported
Test Method: Not reported

NY Hist Spills:
Region of Spill: 9
Spill Number: 9875051
Investigator: JFO
Caller Name: Not reported
Caller Agency: Not reported
Caller Phone: Not reported
Notifier Name: Not reported
Notifier Agency: Not reported
Notifier Phone: Not reported
Spill Date/Time: 09/01/1998 12:00
Reported to Dept Date/Time: 09/22/98 10:40
SWIS: 14
Spiller Name: RICHARD CARNES
Spiller Contact: Not reported
Spiller Phone: Not reported
Spiller Address: 57 FREDRO STREET
Spiller City,St,Zip: BUFFALO, NY
Spill Cause: Housekeeping
Reported to Dept: On Land
Water Affected: Not reported
Spill Source: 09
Spill Notifier: Citizen
PBS Number: Not reported
Cleanup Ceased: / /
Cleanup Meets Std: True
Last Inspection: 09/23/98
Recommended Penalty: Penalty Not Recommended
Spiller Cleanup Dt: / /
Enforcement Date: / /
Invstgn Complete: / /
UST Involvement: False
Spill Class: Possible release with minimal potential for fire or hazard or Known release with no damage. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt: 09/23/98

WASTE OIL DUMPING (Continued) **S103484692**

Corrective Action Plan Submitted: / /
Date Region Sent Summary to Central Office: / /
Date Spill Entered In Computer Data File: 09/22/98
Date Spill Entered In Computer Data File: 10:46
Update Date: 11/06/98
Is Updated: False

Tank:
PBS Number: Not reported
Tank Number: Not reported
Tank Size: Not reported
Test Method: Not reported
Leak Rate Failed Tank: Not reported
Gross Leak Rate: Not reported

Material:
Material Class Type: Petroleum
Quantity Spilled: 0
Unkonwn Quantity Spilled: True
Units: Gallons
Quantity Recovered: 0
Unkonwn Quantity Recovered: True
Material: WASTE OIL
Class Type: WASTE OIL
Times Material Entry In File: 9509
CAS Number: Not reported
Last Date: 19940927
DEC Remarks: 09/23/98 JFO SITE VISIT. MET W/TENANT, MRS CARNES, SHE GAVE ME PERMISSION TO CHECK BACKYARD. FOUND SMALL AREA WHERE OIL WAS DUMPED. TELCON WITH HER HUSBAND RICH CARNES. HE CLAIMS THAT HE DID NOT DUMP OIL AND THAT HE HAS BEEN HAVING PROBLEMS WITH A NEIGHBOR. HE WILL REMOVE CONTAMINATED SOIL AND DISPOSE IN GARBAGE. SENT WASTE OIL TO CITIZEN LETTER . NO FURTHER ACTION REQUIRED. CLOSED
Remark: TENANT ALLEGEDLY DUMPING USED MOTOR OIL BEHIND SHED NEAR FENCE.

H36 **DUMPING BEHIND SHED** **NY Spills** **S103484276**
NNW **57 FREDRO STREET** **NY Hist Spills** **N/A**
1/4-1/2 **BUFFALO, NY**
0.377 mi.
1989 ft. **Site 2 of 2 in cluster H**

Relative:
Higher

Actual:
590 ft.

NY Spills:
Site ID: 192085
Facility Addr2: Not reported
Facility ID: 9875012
Spill Number: 9875012
Facility Type: ER
SWIS: 1502
Investigator: COOKE
Referred To: Not reported
Spill Date: 9/1/1998
Reported to Dept: 9/4/1998
CID: Not reported
Spill Cause: Deliberate
Water Affected: Not reported
Spill Source: Private Dwelling
Spill Notifier: Citizen
Cleanup Ceased: Not reported
Cleanup Meets Std: True

DUMPING BEHIND SHED (Continued) **S103484276**

Last Inspection:	9/8/1998
Recommended Penalty:	Penalty Not Recommended
UST Trust:	False
Spill Class:	No spill occured. No DEC Response. No corrective action required.
Spill Closed Dt:	9/8/1998
Remediation Phase:	0
Date Entered In Computer:	9/4/1998
Spill Record Last Update:	9/18/1998
Spiller Name:	Not reported
Spiller Company:	none
Spiller Address:	Not reported
Spiller City,St,Zip:	NY
Spiller Company:	999
Contact Name:	Not reported
Contact Phone:	Not reported
DEC Region:	9
DER Facility ID:	160187
DEC Memo:	Prior to Sept, 2004 data translation this spill Lead_DEC Field was "JDC" 9/8/98: JDC ON SITE AND ISPECTED GARAGE AND SHED BEHIND SUSPECT RESIDENCE. FOUND NO EVIDENCE OF OIL SPILLAGE. NO FURTHER ACTION REQUIRED.
Remarks:	DELIBRATE DUMPING OF USED MOTOR OIL ALONG FENCELINE AND BEHIND A STORAGE SHED.

Material:

Site ID:	192085
Operable Unit ID:	1074609
Operable Unit:	01
Material ID:	306573
Material Code:	0015
Material Name:	Motor Oil
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	0
Units:	Gallons
Recovered:	No
Resource Affected:	Not reported
Oxygenate:	False

Tank Test:

Site ID:	Not reported
Spill Tank Test:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported
Leak Rate:	Not reported
Gross Fail:	Not reported
Modified By:	Not reported
Last Modified:	Not reported
Test Method:	Not reported

NY Hist Spills:

Region of Spill:	9
Spill Number:	9875012
Investigator:	JDC
Caller Name:	Not reported

DUMPING BEHIND SHED (Continued) **S103484276**

Caller Agency: Not reported
Caller Phone: Not reported
Notifier Name: Not reported
Notifier Agency: Not reported
Notifier Phone: Not reported
Spill Date/Time: 09/01/1998 12:00
Reported to Dept Date/Time: 09/04/98 15:40
SWIS: 14
Spiller Name: NONE
Spiller Contact: Not reported
Spiller Phone: Not reported
Spiller Address: Not reported
Spiller City,St,Zip: Not reported
Spill Cause: Deliberate
Reported to Dept: On Land
Water Affected: Not reported
Spill Source: 09
Spill Notifier: Citizen
PBS Number: Not reported
Cleanup Ceased: / /
Cleanup Meets Std: True
Last Inspection: 09/08/98
Recommended Penalty: Penalty Not Recommended
Spiller Cleanup Dt: / /
Enforcement Date: / /
Invstgn Complete: / /
UST Involvement: False
Spill Class: No spill occured. No DEC Response. No corrective action required.
Spill Closed Dt: 09/08/98
Corrective Action Plan Submitted: / /
Date Region Sent Summary to Central Office: / /
Date Spill Entered In Computer Data File: 09/04/98
Date Spill Entered In Computer Data File: 16:03
Update Date: 09/18/98
Is Updated: False

Tank:
PBS Number: Not reported
Tank Number: Not reported
Tank Size: Not reported
Test Method: Not reported
Leak Rate Failed Tank: Not reported
Gross Leak Rate: Not reported

Material:
Material Class Type: Petroleum
Quantity Spilled: 0
Unkonwn Quantity Spilled: False
Units: Gallons
Quantity Recovered: 0
Unkonwn Quantity Recovered: False
Material: MOTOR OIL
Class Type: MOTOR OIL
Times Material Entry In File: 508
CAS Number: Not reported
Last Date: 19940728
DEC Remarks: 9/8/98: JDC ON SITE AND ISPECTED GARAGE AND SHED BEHIND SUSPECT RESIDENCE. FOUND NO EVIDENCE OF OIL SPILLAGE. NO FURTHER ACTION REQUIRED.

DUMPING BEHIND SHED (Continued) **S103484276**

Remark: DELIBRATE DUMPING OF USED MOTOR OIL ALONG FENCELINE AND BEHIND A STORAGE SHED.

37
NNW
1/4-1/2
0.386 mi.
2036 ft.

Relative:
Higher

Actual:
592 ft.

OIL ON STREET
191 WEIMAR STREET
BUFFALO, NY

NY Spills S102178788
NY Hist Spills N/A

NY Spills:

Site ID:	69049
Facility Addr2:	Not reported
Facility ID:	9406541
Spill Number:	9406541
Facility Type:	ER
SWIS:	1502
Investigator:	PRINGLE
Referred To:	Not reported
Spill Date:	8/1/1994
Reported to Dept:	8/12/1994
CID:	Not reported
Spill Cause:	Deliberate
Water Affected:	Not reported
Spill Source:	Private Dwelling
Spill Notifier:	Citizen
Cleanup Ceased:	8/18/1994
Cleanup Meets Std:	True
Last Inspection:	8/18/1994
Recommended Penalty:	Penalty Not Recommended
UST Trust:	False
Spill Class:	Possible release with minimal potential for fire or hazard or Known release with no damage. No DEC Response. No corrective action required.
Spill Closed Dt:	8/18/1994
Remediation Phase:	0
Date Entered In Computer:	12/2/2003
Spill Record Last Update:	12/2/2003
Spiller Name:	Not reported
Spiller Company:	UNKNOWN
Spiller Address:	Not reported
Spiller City,St,Zip:	NY
Spiller Company:	999
Contact Name:	Not reported
Contact Phone:	Not reported
DEC Region:	9
DER Facility ID:	65688
DEC Memo:	Prior to Sept, 2004 data translation this spill Lead_DEC Field was "MNP" 08/18/94: MNP/SITE - MINOR SPILLAGE. OIL STAINS ON STREET. NO CLEANUP POSSIBLE. NO FURTHER ACTION NECESSARY.
Remarks:	CITIZEN CHANGING OIL IN PASSENGER VEHICLE AND DUMPING WASTE OIL ON ROAD.

Material:

Site ID:	69049
Operable Unit ID:	1000961
Operable Unit:	01
Material ID:	379577
Material Code:	0022
Material Name:	Waste Oil/Used Oil

OIL ON STREET (Continued) **S102178788**

Case No.:	Not reported
Material FA:	Petroleum
Quantity:	0
Units:	Not reported
Recovered:	No
Resource Affected:	Not reported
Oxygenate:	False

Tank Test:

Site ID:	Not reported
Spill Tank Test:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported
Leak Rate:	Not reported
Gross Fail:	Not reported
Modified By:	Not reported
Last Modified:	Not reported
Test Method:	Not reported

NY Hist Spills:

Region of Spill:	9
Spill Number:	9406541
Investigator:	MNP
Caller Name:	Not reported
Caller Agency:	Not reported
Caller Phone:	Not reported
Notifier Name:	Not reported
Notifier Agency:	Not reported
Notifier Phone:	Not reported
Spill Date/Time:	08/01/1994 12:00
Reported to Dept Date/Time:	08/12/94 11:45
SWIS:	14
Spiller Name:	UNKNOWN
Spiller Contact:	Not reported
Spiller Phone:	Not reported
Spiller Address:	Not reported
Spiller City,St,Zip:	Not reported
Spill Cause:	Deliberate
Reported to Dept:	On Land
Water Affected:	Not reported
Spill Source:	09
Spill Notifier:	Citizen
PBS Number:	Not reported
Cleanup Ceased:	08/18/94
Cleanup Meets Std:	True
Last Inspection:	08/18/94
Recommended Penalty:	Penalty Not Recommended
Spiller Cleanup Dt:	/ /
Enforcement Date:	/ /
Invstgn Complete:	/ /
UST Involvement:	False
Spill Class:	Possible release with minimal potential for fire or hazard or Known release with no damage. No DEC Response. No corrective action required.

OIL ON STREET (Continued) **S102178788**

Spill Closed Dt: 08/18/94
Corrective Action Plan Submitted: / /
Date Region Sent Summary to Central Office: / /
Date Spill Entered In Computer Data File: 09/08/94
Date Spill Entered In Computer Data File: Not reported
Update Date: / /
Is Updated: False

Tank:
PBS Number: Not reported
Tank Number: Not reported
Tank Size: Not reported
Test Method: Not reported
Leak Rate Failed Tank: Not reported
Gross Leak Rate: Not reported

Material:
Material Class Type: Petroleum
Quantity Spilled: 0
Unkonwn Quantity Spilled: True
Units: Not reported
Quantity Recovered: 0
Unkonwn Quantity Recovered: True
Material: WASTE OIL
Class Type: WASTE OIL
Times Material Entry In File: 9509
CAS Number: Not reported
Last Date: 19940927
DEC Remarks: 08/18/94: MNP/SITE - MINOR SPILLAGE. OIL STAINS ON STREET. NO CLEANUP POSSIBLE. NO FURTHER ACTION NECESSARY.
Remark: CITIZEN CHANGING OIL IN PASSENGER VEHICLE AND DUMPING WASTE OIL ON ROAD.

38
NE
1/4-1/2
0.388 mi.
2047 ft.

Relative: Higher

Actual: 583 ft.

RED MATERIAL IN CREEK
323 CASIMER STREET
WEST SENECA, NY

NY Spills S103482914
NY Hist Spills N/A

NY Spills:
Site ID: 299264
Facility Addr2: Not reported
Facility ID: 9805041
Spill Number: 9805041
Facility Type: ER
SWIS: 1568
Investigator: RMCROSSE
Referred To: Not reported
Spill Date: 7/22/1998
Reported to Dept: 7/22/1998
CID: 383
Spill Cause: Human Error
Water Affected: BUFFALO CREEK
Spill Source: Commercial Vehicle
Spill Notifier: Citizen
Cleanup Ceased: Not reported
Cleanup Meets Std: True
Last Inspection: Not reported
Recommended Penalty: Penalty Not Recommended
UST Trust: False

RED MATERIAL IN CREEK (Continued) **S103482914**

Spill Class:	Known release with minimal potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt:	7/23/1998
Remediation Phase:	0
Date Entered In Computer:	7/22/1998
Spill Record Last Update:	8/19/1998
Spiller Name:	Not reported
Spiller Company:	NANCY TRUCKING
Spiller Address:	Not reported
Spiller City,St,Zip:	ZZ
Spiller Company:	001
Contact Name:	Not reported
Contact Phone:	Not reported
DEC Region:	9
DER Facility ID:	242125
DEC Memo:	Prior to Sept, 2004 data translation this spill Lead_DEC Field was "RMC" 07/23/98 DUPLICATE OF 9804983, CLOSE OUT
Remarks:	UNKNOWN RED SUBSTANCE FLOWING IN THE CREEK

Material:

Site ID:	299264
Operable Unit ID:	1062946
Operable Unit:	01
Material ID:	319795
Material Code:	0582A
Material Name:	INK
Case No.:	Not reported
Material FA:	Other
Quantity:	250
Units:	Gallons
Recovered:	125
Resource Affected:	Not reported
Oxygenate:	False

Tank Test:

Site ID:	Not reported
Spill Tank Test:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported
Leak Rate:	Not reported
Gross Fail:	Not reported
Modified By:	Not reported
Last Modified:	Not reported
Test Method:	Not reported

NY Hist Spills:

Region of Spill:	9
Spill Number:	9805041
Investigator:	RMC
Caller Name:	Not reported
Caller Agency:	Not reported
Caller Phone:	Not reported
Notifier Name:	Not reported
Notifier Agency:	Not reported
Notifier Phone:	Not reported

RED MATERIAL IN CREEK (Continued) **S103482914**

Spill Date/Time: 07/22/1998 17:35
Reported to Dept Date/Time: 07/22/98 17:35
SWIS: 14
Spiller Name: NANCY TRUCKING
Spiller Contact: Not reported
Spiller Phone: Not reported
Spiller Address: Not reported
Spiller City,St,Zip: Not reported
Spill Cause: Human Error
Reported to Dept: Surface Water
Water Affected: BUFFALO CREEK
Spill Source: 07
Spill Notifier: Citizen
PBS Number: Not reported
Cleanup Ceased: / /
Cleanup Meets Std: True
Last Inspection: / /
Recommended Penalty: Penalty Not Recommended
Spiller Cleanup Dt: / /
Enforcement Date: / /
Invstgn Complete: / /
UST Involvement: False
Spill Class: Known release with minimal potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt: 07/23/98
Corrective Action Plan Submitted: / /
Date Region Sent Summary to Central Office: / /
Date Spill Entered In Computer Data File: 07/22/98
Date Spill Entered In Computer Data File: Not reported
Update Date: 08/19/98
Is Updated: False

Tank:
PBS Number: Not reported
Tank Number: Not reported
Tank Size: Not reported
Test Method: Not reported
Leak Rate Failed Tank: Not reported
Gross Leak Rate: Not reported

Material:
Material Class Type: Hazardous Material
Quantity Spilled: 250
Unkonwn Quantity Spilled: False
Units: Gallons
Quantity Recovered: 125
Unkonwn Quantity Recovered: False
Material: PRINTING INK
Class Type: PRINTING INK
Times Material Entry In File: 8
CAS Number: Not reported
Last Date: Not reported
DEC Remarks: 07/23/98 DUPLICATE OF 9804983, CLOSE OUT
Remark: UNKNOWN RED SUBSTANCE FLOWING IN THE CREEK

39
NNE
1/4-1/2
0.425 mi.
2246 ft.

Relative:
Higher

Actual:
589 ft.

107 ELECTRIC
107 ELECTRIC AVENUE
WEST SENECA, NY

NY Spills **S102179371**
NY Hist Spills **N/A**

NY Spills:

Site ID:	179191
Facility Addr2:	Not reported
Facility ID:	9500281
Spill Number:	9500281
Facility Type:	ER
SWIS:	1568
Investigator:	RMCROSSE
Referred To:	Not reported
Spill Date:	4/6/1995
Reported to Dept:	4/7/1995
CID:	Not reported
Spill Cause:	Vandalism
Water Affected:	Not reported
Spill Source:	Private Dwelling
Spill Notifier:	Local Agency
Cleanup Ceased:	4/25/1995
Cleanup Meets Std:	True
Last Inspection:	4/25/1995
Recommended Penalty:	Penalty Not Recommended
UST Trust:	False
Spill Class:	Known release with minimal potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt:	4/25/1995
Remediation Phase:	0
Date Entered In Computer:	4/7/1995
Spill Record Last Update:	5/12/1995
Spiller Name:	Not reported
Spiller Company:	SCOTT BUCZKOWSKI
Spiller Address:	107 ELECTRIC AVENUE
Spiller City,St,Zip:	WEST SENECA, NY 14206
Spiller Company:	001
Contact Name:	Not reported
Contact Phone:	Not reported
DEC Region:	9
DER Facility ID:	150416
DEC Memo:	Prior to Sept, 2004 data translation this spill Lead_DEC Field was "RMC" 04/07/95: RMC/SCOTT B/SITE SHOPPING CART OF WASTE OIL CONTAINERS TIPPED OVER, SPILLAGE TO DRIVEWAY AND STREET. LESS THAN GALLON ENTERED RECEIVER, RMC ADVISED TO CLEAN UP , REINSPECT 4/10/95. 04/25/95: RMC/SITE SPILL CLEANED UP, NO FURTHER ACTION REQUIRED, CLOSE OUT. 05/01/95: RMC/SITE SPILL CLEANED UP, NO FURTHER ACTION REQUIRED, WASTE OIL LETTER, CLOSE OUT.
Remarks:	VANDALS CAUSED WASTE OIL SPILLAGE

Material:

Site ID:	179191
Operable Unit ID:	1014386
Operable Unit:	01
Material ID:	368887
Material Code:	0022
Material Name:	Waste Oil/Used Oil
Case No.:	Not reported
Material FA:	Petroleum

107 ELECTRIC (Continued) **S102179371**

Quantity: 20
Units: Gallons
Recovered: 18
Resource Affected: Not reported
Oxygenate: False

Tank Test:
Site ID: Not reported
Spill Tank Test: Not reported
Tank Number: Not reported
Tank Size: Not reported
Test Method: Not reported
Leak Rate: Not reported
Gross Fail: Not reported
Modified By: Not reported
Last Modified: Not reported
Test Method: Not reported

NY Hist Spills:
Region of Spill: 9
Spill Number: 9500281
Investigator: RMC
Caller Name: Not reported
Caller Agency: Not reported
Caller Phone: Not reported
Notifier Name: Not reported
Notifier Agency: Not reported
Notifier Phone: Not reported
Spill Date/Time: 04/06/1995 20:00
Reported to Dept Date/Time: 04/07/95 10:20
SWIS: 14
Spiller Name: SCOTT BUCZKOWSKI
Spiller Contact: Not reported
Spiller Phone: (716) 824-9331
Spiller Address: 107 ELECTRIC AVENUE
Spiller City,St,Zip: WEST SENECA, NY 14206
Spill Cause: Vandalism
Reported to Dept: On Land
Water Affected: Not reported
Spill Source: 09
Spill Notifier: Local Agency
PBS Number: Not reported
Cleanup Ceased: 04/25/95
Cleanup Meets Std: True
Last Inspection: 04/25/95
Recommended Penalty: Penalty Not Recommended
Spiller Cleanup Dt: / /
Enforcement Date: / /
Invstgn Complete: / /
UST Involvement: False
Spill Class: Known release with minimal potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt: 04/25/95
Corrective Action Plan Submitted: / /
Date Region Sent Summary to Central Office: / /

107 ELECTRIC (Continued) **S102179371**

Date Spill Entered In Computer Data File: 04/07/95
Date Spill Entered In Computer Data File: Not reported
Update Date: 05/12/95
Is Updated: False

Tank:
PBS Number: Not reported
Tank Number: Not reported
Tank Size: Not reported
Test Method: Not reported
Leak Rate Failed Tank: Not reported
Gross Leak Rate: Not reported

Material:
Material Class Type: Petroleum
Quantity Spilled: 20
Unkonwn Quantity Spilled: False
Units: Gallons
Quantity Recovered: 18
Unkonwn Quantity Recovered: False
Material: WASTE OIL
Class Type: WASTE OIL
Times Material Entry In File: 9509
CAS Number: Not reported
Last Date: 19940927
DEC Remarks: 04/07/95: RMC/SCOTT B/SITE SHOPPING CART OF WASTE OIL CONTAINERS TIPPED OVER, SPILLAGE TO DRIVEWAY AND STREET. LESS THAN GALLON ENTERED RECEIVER, RMC ADVISED TO CLEAN UP , REINSPECT 4/10/95. 04/25/95: RMC/SITE SPILL CLEANED UP, NO FURTHER ACTIONREQUIRED, CLOSE OUT. 05/01/95: RMC/SITE SPILL CLEANED UP, NO FURTHER ACTION REQUIRED, WASTE OIL LETTER, CLOSE OUT.
Remark: VANDALS CAUSED WASTE OIL SPILLAGE

---

40 West 1/4-1/2 0.444 mi. 2342 ft.

Relative: Lower

Actual: 581 ft.

AVONDALE PLACE
33 AVONDALE PLACE
BUFFALO, NY

NY Spills S102175582
NY Hist Spills N/A

NY Spills:
Site ID: 247553
Facility Addr2: Not reported
Facility ID: 8602101
Spill Number: 8602101
Facility Type: ER
SWIS: 1502
Investigator: PRINGLE
Referred To: Not reported
Spill Date: 6/27/1986
Reported to Dept: 6/27/1986
CID: Not reported
Spill Cause: Unknown
Water Affected: Not reported
Spill Source: Unknown
Spill Notifier: Citizen
Cleanup Ceased: 9/2/1986
Cleanup Meets Std: True
Last Inspection: 9/2/1986
Recommended Penalty: Penalty Not Recommended
UST Trust: False

AVONDALE PLACE (Continued) **S102175582**

Spill Class:	Not reported
Spill Closed Dt:	9/2/1986
Remediation Phase:	0
Date Entered In Computer:	7/7/1986
Spill Record Last Update:	9/10/1986
Spiller Name:	Not reported
Spiller Company:	UNKNOWN
Spiller Address:	Not reported
Spiller City,St,Zip:	NY
Spiller Company:	999
Contact Name:	Not reported
Contact Phone:	Not reported
DEC Region:	9
DER Facility ID:	203274
DEC Memo:	Prior to Sept, 2004 data translation this spill Lead_DEC Field was "MNP" / / : SITE INSPECTION 6/27/86 BY MNP, SOIL SAMPLE TAKEN; SAMPLE TO E&E 7/1/86. / / : SITE INSPECTION 6/27/86 BY MNP, SOIL SAMPLE TAKEN; SAMPLE (E&E) 7/1/86, RECEIVED _____. / / : SAMPLE RESULTS RECEIVED 8/4/86 FROM E&E, LUBE OIL. / / : SAMPLE (E&E) 07/01/86, RECEIVED 08/04/86 - LUBE OIL; SITE INSPECTION 09/02/86, CLEANUP NOT REQUIRED, MINOR AND ISOLATED AMOUNT OF SPILLAGE. / / : SAMPLE (E&E) 07/01/86, RECEIVED 08/04/86 - LUBE OIL.
Remarks:	BLACK OILY SUBSTANCE IN SOIL AT 14 INCHES

Material:

Site ID:	247553
Operable Unit ID:	898667
Operable Unit:	01
Material ID:	478558
Material Code:	0013
Material Name:	Lube Oil
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	1
Units:	Gallons
Recovered:	No
Resource Affected:	Not reported
Oxygenate:	False

Tank Test:

Site ID:	Not reported
Spill Tank Test:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported
Leak Rate:	Not reported
Gross Fail:	Not reported
Modified By:	Not reported
Last Modified:	Not reported
Test Method:	Not reported

NY Hist Spills:

Region of Spill:	9
Spill Number:	8602101
Investigator:	MNP
Caller Name:	Not reported

AVONDALE PLACE (Continued) **S102175582**

Caller Agency:	Not reported
Caller Phone:	Not reported
Notifier Name:	Not reported
Notifier Agency:	Not reported
Notifier Phone:	Not reported
Spill Date/Time:	06/27/1986 13:15
Reported to Dept Date/Time:	06/27/86 13:15
SWIS:	14
Spiller Name:	UNKNOWN
Spiller Contact:	Not reported
Spiller Phone:	Not reported
Spiller Address:	Not reported
Spiller City,St,Zip:	Not reported
Spill Cause:	Unknown
Reported to Dept:	Groundwater
Water Affected:	Not reported
Spill Source:	12
Spill Notifier:	Citizen
PBS Number:	Not reported
Cleanup Ceased:	09/02/86
Cleanup Meets Std:	True
Last Inspection:	09/02/86
Recommended Penalty:	Penalty Not Recommended
Spiller Cleanup Dt:	/ /
Enforcement Date:	/ /
Invstgn Complete:	/ /
UST Involvement:	False
Spill Class:	Not reported
Spill Closed Dt:	09/02/86
Corrective Action Plan Submitted:	/ /
Date Region Sent Summary to Central Office:	12/24/86
Date Spill Entered In Computer Data File:	07/07/86
Date Spill Entered In Computer Data File:	Not reported
Update Date:	09/10/86
Is Updated:	False

Tank:

PBS Number:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported
Leak Rate Failed Tank:	Not reported
Gross Leak Rate:	Not reported

Material:

Material Class Type:	Petroleum
Quantity Spilled:	1
Unkonwn Quantity Spilled:	False
Units:	Gallons
Quantity Recovered:	0
Unkonwn Quantity Recovered:	False
Material:	LUBRICATING OIL
Class Type:	LUBRICATING OIL
Times Material Entry In File:	292
CAS Number:	Not reported
Last Date:	Not reported
Material:	LUBE OIL
Class Type:	LUBE OIL

GETTY #58856 (Continued) **S108294193**

Remarks: 3RD PARTY AUDIT FOR GETTY. REPAIRS ORDERED. 11/13/6 TYREE REPORT CONFIRMS PIPES WERE TIGHTENED TO CORRECT ANY LEAKING. 4/10/7 SPILL CLOSED. NO FURTHER ACTION REQUIRED.
DURING INSPECTION FOUND A LEAKING DISPENSER AND NO SPILL CONTAINER: HAS BEEN TIGHTENED

Material:

Site ID:	370394
Operable Unit ID:	1128207
Operable Unit:	01
Material ID:	2117818
Material Code:	0009
Material Name:	Gasoline
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	Not reported
Units:	Gallons
Recovered:	No
Resource Affected:	Not reported
Oxygenate:	False

Tank Test:

Site ID:	Not reported
Spill Tank Test:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported
Leak Rate:	Not reported
Gross Fail:	Not reported
Modified By:	Not reported
Last Modified:	Not reported
Test Method:	Not reported

I42 **58856 GETTY** **NY Spills** **S108467228**
WSW **1770 SENECA STREET** **N/A**
1/4-1/2 **BUFFALO, NY**
0.449 mi.
2373 ft. **Site 2 of 6 in cluster I**

Relative:
Higher

Actual:
583 ft.

NY Spills:

Site ID:	379285
Facility Addr2:	Not reported
Facility ID:	0614054
Spill Number:	0614054
Facility Type:	ER
SWIS:	1502
Investigator:	rjjonak
Referred To:	Not reported
Spill Date:	3/31/2007
Reported to Dept:	3/31/2007
CID:	62
Spill Cause:	Deliberate
Water Affected:	Not reported
Spill Source:	Gasoline Station
Spill Notifier:	Responsible Party
Cleanup Ceased:	Not reported
Cleanup Meets Std:	True

58856 GETTY (Continued) **S108467228**

Last Inspection:	Not reported
Recommended Penalty:	Penalty Not Recommended
UST Trust:	False
Spill Class:	Known release with minimal potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt:	4/10/2007
Remediation Phase:	0
Date Entered In Computer:	4/2/2007
Spill Record Last Update:	4/10/2007
Spiller Name:	SCOTT HANLEY
Spiller Company:	GETTY PETROLEUM MARKETING, INC.
Spiller Address:	1500 HEMPSTEAD TURNPIKE
Spiller City,St,Zip:	EAST MEADOW, NY 11554
Spiller Company:	001
Contact Name:	MIKE CARR
Contact Phone:	(518) 369-7822
DEC Region:	9
DER Facility ID:	155276
DEC Memo:	4/2/2007: RJJ TELECON MIKE CARR,TYREE CORP.,HE SAID THAT A CUSTOMER DROVE OFF WITH THE NOZZLE ATTACHED TO THE CAR AND THE BREAK-AWAY VALVE FUNCTIONED PROPERLY,CAUSING ~1 GAL OF GASOLINE TO SPILL OUT ALL ON THE CONCRETE ISLAND...GETTY PERSONNEL SPREAD SPEEDI-DRY AND SOAKED UP AND CONTAINED THE SMALL SPILL,THEN PICKED UP AND DISPOSED ALL THE MATERIAL IN THEIR DUMPSTER...NONE OF THE FUEL REACHED ANY RECEIVERS OR SOIL...TYREE WILL PERFORM A LINE TEST AND SEND ME THE RESULTS. 4/10/2007: RECEIVED THE CERTIFICATE OF UNDERGROUND STORAGE TANK SYSTEM TESTING FROM THE TYREE CO.,WHICH INDICATES THAT THE SYSTEM PASSED...THE SPILL HAS BEEN CLEANED UP,PROPERLY DISPOSED OF,AND THE UST SYSTEM IS STILL PROPERLY WORKING...NO FURTHER ACTION IS NEEDED...SPILL CLOSED OUT.
Remarks:	Customer drove off with nozzle attached to car, break-away valve functioned, clean up attempted

Material:

Site ID:	379285
Operable Unit ID:	1136775
Operable Unit:	01
Material ID:	2126728
Material Code:	0009
Material Name:	Gasoline
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	1
Units:	Gallons
Recovered:	Yes
Resource Affected:	Not reported
Oxygenate:	False

Tank Test:

Site ID:	Not reported
Spill Tank Test:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported
Leak Rate:	Not reported
Gross Fail:	Not reported
Modified By:	Not reported

58856 GETTY (Continued) **S108467228**

Last Modified: Not reported
Test Method: Not reported

I43 **PETRO SALES & SERVICE** **LTANKS S100250699**
WSW **1770 SENECA STREET** **HIST LTANKS N/A**
1/4-1/2 **BUFFALO, NY**
0.449 mi.
2373 ft. **Site 3 of 6 in cluster I**

Relative:
Higher

Actual:
583 ft.

LTANKS:

Site ID:	185647
Spill No:	8807997
Spill Date:	1/1/1989
Spill Cause:	Tank Failure
Spill Source:	Gasoline Station
Spill Class:	Not reported
Spill Closed Dt:	2/28/1989
Facility Addr2:	Not reported
Cleanup Ceased:	2/28/1989
Cleanup Meets Standard:	True
SWIS:	1502
Investigator:	ROSS
Referred To:	Not reported
Reported to Dept:	1/5/1989
CID:	Not reported
Water Affected:	Not reported
Spill Notifier:	Tank Tester
Last Inspection:	1/5/1989
Recommended Penalty:	Penalty Not Recommended
UST Involvement:	True
Remediation Phase:	0
Date Entered In Computer:	1/5/1989
Spill Record Last Update:	1/18/2002
Spiller Name:	Not reported
Spiller Company:	PETRO SALES & SERVICE
Spiller Address:	1770 SENECA STREET
Spiller City,St,Zip:	BUFFALO, NY
Spiller County:	001
Spiller Contact:	Not reported
Spiller Phone:	Not reported
Spiller Extention:	Not reported
DEC Region:	9
DER Facility ID:	155276
Remarks:	CONTAMINATED SOIL FROM TANK PULL

Material:

Site ID:	185647
Operable Unit ID:	924452
Operable Unit:	01
Material ID:	452766
Material Code:	0009
Material Name:	Gasoline
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	0
Units:	Gallons

PETRO SALES & SERVICE (Continued) **S100250699**

Recovered: No
Resource Affected: Not reported
Oxygenate: False

Tank Test:
Site ID: Not reported
Spill Tank Test: Not reported
Tank Number: Not reported
Tank Size: Not reported
Test Method: Not reported
Leak Rate: Not reported
Gross Fail: Not reported
Modified By: Not reported
Last Modified: Not reported
Test Method: Not reported

HIST LTANKS:
Region of Spill: 9
Spill Number: 8807997
Spill Date: 01/01/1989
Spill Time: 12:00
Spill Cause: Tank Failure
Resource Affectd: Groundwater
Water Affected: Not reported
Spill Source: Gas Station
Spill Class: Not reported
Spill Closed Dt: 02/28/89
Cleanup Ceased: 02/28/89
Cleanup Meets Standard: True
Investigator: LQR
Caller Name: Not reported
Caller Agency: Not reported
Caller Phone: Not reported
Caller Extension: Not reported
Notifier Name: Not reported
Notifier Agency: Not reported
Notifier Phone: Not reported
Notifier Extension: Not reported
Reported to Department Date: 01/05/89
Reported to Department Time: 10:50
SWIS: 14
Spiller Contact: Not reported
Spiller Phone: Not reported
Spiller Extention: Not reported
Spiller Name: PETRO SALES & SERVICE
Spiller Address: 1770 SENECA STREET
Spiller City,St,Zip: BUFFALO, NY
Spiller Cleanup Date: / /
Facility Contact: Not reported
Facility Phone: Not reported
Facility Extention: Not reported
Spill Notifier: Tank Tester
PBS Number: Not reported
Last Inspection: 01/05/89
Recommended Penalty: Penalty Not Recommended

PETRO SALES & SERVICE (Continued) **S100250699**

Enforcement Date: / /
Investigation Complete: / /
UST Involvement: True
Date Region Sent Summary to Central Office: / /
Corrective Action Plan Submitted: / /
Date Spill Entered In Computer Data File: 01/05/89
Time Spill Entered In Computer Data File: Not reported
Spill Record Last Update: 04/06/89
Is Updated: False

Tank:
PBS Number: Not reported
Tank Number: Not reported
Tank Size: Not reported
Test Method: Not reported
Leak Rate Failed Tank: Not reported
Gross Leak Rate: Not reported

Material:
Material Class Type: Petroleum
Quantity Spilled: 0
Unkonwn Quantity Spilled: False
Units: Gallons
Quantity Recovered: 0
Unkonwn Quantity Recovered: False
Material: GASOLINE
Class Type: GASOLINE
Times Material Entry In File: 21329
CAS Number: Not reported
Last Date: 19940929
DEC Remarks: 01/05/89: LQR ON SITE SOIL STAGE ON SITE. 02/01/89: MJH TELCON W/ D.DALEY ELMWOOD T P SOIL TO BE DISPOSED OF. 02/24/89: LQR TELCON W/ D.DALEY ELMWOOD T P RECIEPT TO FOLLOW. 02/28/89: DISPOSAL RECIEPT REC. 02/28/89.
Spill Cause: CONTAMINATED SOIL FROM TANK PULL

I44 **PETRO STATION** **NY Spills** **S102177426**
WSW **1770 SENECA STREET** **NY Hist Spills** **N/A**
1/4-1/2 **BUFFALO, NY**
0.449 mi.
2373 ft. **Site 4 of 6 in cluster I**

Relative:
Higher

Actual:
583 ft.

NY Spills:
Site ID: 185648
Facility Addr2: Not reported
Facility ID: 9005418
Spill Number: 9005418
Facility Type: ER
SWIS: 1502
Investigator: MJHINTON
Referred To: Not reported
Spill Date: 8/14/1990
Reported to Dept: 8/14/1990
CID: Not reported
Spill Cause: Equipment Failure
Water Affected: Not reported
Spill Source: Gasoline Station
Spill Notifier: Responsible Party
Cleanup Ceased: 8/16/1990

PETRO STATION (Continued) **S102177426**

Cleanup Meets Std:	True
Last Inspection:	Not reported
Recommended Penalty:	Penalty Not Recommended
UST Trust:	True
Spill Class:	Not reported
Spill Closed Dt:	8/16/1990
Remediation Phase:	0
Date Entered In Computer:	8/23/1990
Spill Record Last Update:	12/4/1990
Spiller Name:	Not reported
Spiller Company:	PETRO STATION
Spiller Address:	Not reported
Spiller City,St,Zip:	ZZ
Spiller Company:	001
Contact Name:	Not reported
Contact Phone:	Not reported
DEC Region:	9
DER Facility ID:	155276
DEC Memo:	Prior to Sept, 2004 data translation this spill Lead_DEC Field was "MJH" 08/23/90: FIRE DEPT RESPONDED AND USED 5 SORBENT PADS TO CLEANUP NO FURTHER ACTION NEEDED.
Remarks:	AIR ELIMINATOR ON PUMP MALFUNCTIONEDAND SPILLED GASOLINE

Material:

Site ID:	185648
Operable Unit ID:	942953
Operable Unit:	01
Material ID:	436463
Material Code:	0009
Material Name:	Gasoline
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	3
Units:	Gallons
Recovered:	3
Resource Affected:	Not reported
Oxygenate:	False

Tank Test:

Site ID:	185648
Spill Tank Test:	1537436
Tank Number:	Not reported
Tank Size:	0
Test Method:	00
Leak Rate:	0
Gross Fail:	Not reported
Modified By:	Spills
Last Modified:	10/1/2004
Test Method:	Unknown

NY Hist Spills:

Region of Spill:	9
Spill Number:	9005418
Investigator:	MJH
Caller Name:	Not reported
Caller Agency:	Not reported

AVONDALE PLACE (Continued) **S102175582**

Times Material Entry In File: 295
CAS Number: Not reported
Last Date: 19940728
DEC Remarks: / / : SITE INSPECTION 6/27/86 BY MNP, SOIL SAMPLE TAKEN; SAMPLE TO E E 7/1/86. / / : SITE INSPECTION 6/27/86 BY MNP, SOIL SAMPLE TAKEN; SAMPLE E E) 7/1/86, RECEIVED . / / : SAMPLE RESULTS RECEIVED 8/4/86 FROM E E, LUBE OIL. / / : SAMPLE E E) 07/01/86, RECEIVED 08/04/86 - LUBE OIL; SITE INSPECTION 09/02/86, CLEANUP NOT REQUIRED, MINOR AND ISOLATED AMOUNT OF SPILLAGE. / / : SAMPLE E E) 07/01/86, RECEIVED 08/04/86 - LUBE OIL.
Remark: BLACK OILY SUBSTANCE IN SOIL AT 14 INCHES

I41 **GETTY #58856** **NY Spills** **S108294193**
WSW **1770 SENECA STREET** **N/A**
1/4-1/2 **BUFFALO, NY**
0.449 mi.
2373 ft. **Site 1 of 6 in cluster I**

Relative:
Higher

Actual:
583 ft.

NY Spills:
Site ID: 370394
Facility Addr2: Not reported
Facility ID: 0606958
Spill Number: 0606958
Facility Type: ER
SWIS: 1502
Investigator: CGMCKENZ
Referred To: Not reported
Spill Date: 9/18/2006
Reported to Dept: 9/18/2006
CID: 444
Spill Cause: Other
Water Affected: Not reported
Spill Source: Gasoline Station
Spill Notifier: Other
Cleanup Ceased: Not reported
Cleanup Meets Std: True
Last Inspection: 9/20/2006
Recommended Penalty: Penalty Not Recommended
UST Trust: False
Spill Class: Known release that creates potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt: 4/10/2007
Remediation Phase: 0
Date Entered In Computer: 9/18/2006
Spill Record Last Update: 4/10/2007
Spiller Name: SCOTT HANLEY
Spiller Company: GETTY PETROLEUM MARKETING, INC.
Spiller Address: 1500 HEMPSTEAD TURNPIKE
Spiller City,St,Zip: EAST MEADOW, NY 11554
Spiller Company: 001
Contact Name: JACKIE TROSCLAIR
Contact Phone: (845) 561-1512
DEC Region: 9
DER Facility ID: 155276
DEC Memo: 9/20/6 SITE VISIT. NO OBSERVABLE ON-GOING LEAKS UNDER DISPENSERS. DISPENSERS LOCKED OUT UNTIL REPAIRED. FACILITY AWAITING REPAIR VISIT FOR CONFIRMATION OF NO FURTHER LEAKING. 9/21/6 JACKIE OF C2G FAXED PHOTOS OF PICS TAKEN DURING AUDIT. 10/16/6 LTR FROM C2G ENV CONS RE

PETRO STATION (Continued) **S102177426**

Caller Phone:	Not reported
Notifier Name:	Not reported
Notifier Agency:	Not reported
Notifier Phone:	Not reported
Spill Date/Time:	08/14/1990 12:45
Reported to Dept Date/Time:	08/14/90 13:55
SWIS:	14
Spiller Name:	PETRO STATION
Spiller Contact:	Not reported
Spiller Phone:	Not reported
Spiller Address:	Not reported
Spiller City,St,Zip:	Not reported
Spill Cause:	Equipment Failure
Reported to Dept:	On Land
Water Affected:	Not reported
Spill Source:	05
Spill Notifier:	Responsible Party
PBS Number:	9-383503
Cleanup Ceased:	08/16/90
Cleanup Meets Std:	True
Last Inspection:	/ /
Recommended Penalty:	Penalty Not Recommended
Spiller Cleanup Dt:	/ /
Enforcement Date:	/ /
Invstgn Complete:	/ /
UST Involvement:	True
Spill Class:	Not reported
Spill Closed Dt:	08/16/90
Corrective Action Plan Submitted:	/ /
Date Region Sent Summary to Central Office:	/ /
Date Spill Entered In Computer Data File:	08/23/90
Date Spill Entered In Computer Data File:	Not reported
Update Date:	12/04/90
Is Updated:	False

Tank:

PBS Number:	7-041912
Tank Number:	Not reported
Tank Size:	0
Test Method:	Not reported
Leak Rate Failed Tank:	0.00
Gross Leak Rate:	Not reported

Material:

Material Class Type:	Petroleum
Quantity Spilled:	3
Unkonwn Quantity Spilled:	False
Units:	Gallons
Quantity Recovered:	3
Unkonwn Quantity Recovered:	False
Material:	GASOLINE
Class Type:	GASOLINE
Times Material Entry In File:	21329
CAS Number:	Not reported
Last Date:	19940929
DEC Remarks:	08/23/90: FIRE DEPT RESPONDED AND USED 5 SORBENT PADS TO CLEANUP NO FURTHER ACTION NEEDED.
Remark:	AIR ELIMINATOR ON PUMP MALFUNCTIONEDAND SPILLED GASOLINE

I45 **FORMER PETRO-USA/GETTY ST** **LTANKS S103941235**
WSW **1770 SENECA STREET** **HIST LTANKS N/A**
1/4-1/2 **BUFFALO, NY**
0.449 mi.
2373 ft. **Site 5 of 6 in cluster I**

Relative:
Higher

Actual:
583 ft.

LTANKS:

Site ID:	185649
Spill No:	9975141
Spill Date:	5/1/1999
Spill Cause:	Tank Failure
Spill Source:	Gasoline Station
Spill Class:	Known release that creates potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt:	10/13/2000
Facility Addr2:	Not reported
Cleanup Ceased:	Not reported
Cleanup Meets Standard:	False
SWIS:	1502
Investigator:	JFOTTO
Referred To:	Not reported
Reported to Dept:	5/25/1999
CID:	Not reported
Water Affected:	Not reported
Spill Notifier:	Other
Last Inspection:	8/29/2000
Recommended Penalty:	Penalty Not Recommended
UST Involvement:	True
Remediation Phase:	0
Date Entered In Computer:	5/25/1999
Spill Record Last Update:	8/3/2004
Spiller Name:	RON HALPIN
Spiller Company:	PETRO-USA/GETTY OIL
Spiller Address:	300 OHIO STREET
Spiller City,St,Zip:	BUFFALO, NY 14203-
Spiller County:	001
Spiller Contact:	STEVE MARCHETTI
Spiller Phone:	(716) 662-0745
Spiller Extention:	Not reported
DEC Region:	9
DER Facility ID:	155276
Remarks:	PETROLEUM CONTAMINATION FOUND DURING A PHASE II SITE ASSESSMENT

Material:

Site ID:	185649
Operable Unit ID:	1091295
Operable Unit:	01
Material ID:	291656
Material Code:	0009
Material Name:	Gasoline
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	0
Units:	Gallons
Recovered:	No
Resource Affected:	Not reported
Oxygenate:	False

FORMER PETRO-USA/GETTY ST (Continued) **S103941235**

Tank Test:

Site ID:	Not reported
Spill Tank Test:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported
Leak Rate:	Not reported
Gross Fail:	Not reported
Modified By:	Not reported
Last Modified:	Not reported
Test Method:	Not reported

HIST LTANKS:

Region of Spill:	9
Spill Number:	9975141
Spill Date:	05/01/1999
Spill Time:	12:00
Spill Cause:	Tank Failure
Resource Affectd:	Groundwater
Water Affected:	Not reported
Spill Source:	Gas Station
Spill Class:	Known release that creates potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt:	10/13/00
Cleanup Ceased:	/ /
Cleanup Meets Standard:	False
Investigator:	JFO
Caller Name:	Not reported
Caller Agency:	Not reported
Caller Phone:	Not reported
Caller Extension:	Not reported
Notifier Name:	Not reported
Notifier Agency:	Not reported
Notifier Phone:	Not reported
Notifier Extension:	Not reported
Reported to Department Date:	05/25/99
Reported to Department Time:	12:15
SWIS:	14
Spiller Contact:	STEVE MARCHETTI
Spiller Phone:	(716) 662-0745
Spiller Extention:	Not reported
Spiller Name:	PETRO-USA/GETTY OIL
Spiller Address:	300 OHIO STREET
Spiller City,St,Zip:	BUFFALO, NY 14203-
Spiller Cleanup Date:	/ /
Facility Contact:	RON HALPIN
Facility Phone:	(716) 856-8675
Facility Extention:	Not reported
Spill Notifier:	Other
PBS Number:	Not reported
Last Inspection:	08/29/00
Recommended Penalty:	Penalty Not Recommended
Enforcement Date:	/ /
Investigation Complete:	/ /
UST Involvement:	True

FORMER PETRO-USA/GETTY ST (Continued) **S103941235**

Date Region Sent Summary to Central Office: / /
Corrective Action Plan Submitted: / /
Date Spill Entered In Computer Data File: 05/25/99
Time Spill Entered In Computer Data File: 12:18
Spill Record Last Update: 10/18/00
Is Updated: False

Tank:
PBS Number: Not reported
Tank Number: Not reported
Tank Size: Not reported
Test Method: Not reported
Leak Rate Failed Tank: Not reported
Gross Leak Rate: Not reported

Material:
Material Class Type: Petroleum
Quantity Spilled: 0
Unkonwn Quantity Spilled: True
Units: Gallons
Quantity Recovered: 0
Unkonwn Quantity Recovered: True
Material: GASOLINE
Class Type: GASOLINE
Times Material Entry In File: 21329
CAS Number: Not reported
Last Date: 19940929
DEC Remarks: 01/18/00: JFO RECEIVED SAMPLE RESULTS FROM FOUR GROUNDWATER MONITORING WELLS. WELL 4 INDICATES REMEDIATION IS NECESSARY. BENZENE 1,130.0 PPB TOLUENE 17.9 M,P-XYLENE 34.1 O-XYLENE 12.8 ISOPROPYLBENZENE 11.8 N-PROPYLBENZENE 14.0 MTBE 738.0 JFO SENTLETTER REQUESTING REMEDIATION PROPOSAL AND WORK SCHEDULE 06/26/00: JFO RECEIVED REMEDIATION PLAN AND SUBSURFACE INVESTIGATION REPORT. THE REPORT INDICATES SB-5,6,7 AND 9 SAMPLE RESULTS ARE HIGH. THEY WILL DIG TO CLEAN. 08/10/00: JFO TELECON TO STEVE MARCHETTI. THEY WILL START DIGGING SEPT 28. 08/28/00: JFO ON SITE, MET WITH STEVE HESS OF MATRIX. THEY ARE DIGGING AND HAULING THE CONTAMINATED SOILS. THE EXCAVATION IS L-SHAPED. THE EXCAVATED AREA SOUTH OF THE BUILDING WAS DUG CLEAN AND SAMPLED. 08/29/00: JFO ON SITE, MET WITH STEVE HESS. THEY ARE DIGGING THE AREA THAT EXTENDS NORTH. THE BOTTOM IS VERY SOGGY. THEY WILL DIG TO CLEAN. 10/13/00: JFO RECEIVED THE CLOSURE REPORT FROM MATRIX. INCLUDED IN THE REPORT ARE THE ANALYTICAL RESULTS AND DISPOSAL RECEIPTS FOR 929 TONS OF CONTAMINATED SOIL. DUE TO BENZENE THIS SITE WILL HAVE AN INACTIVE STATUS. NO FURTHER ACTION REQUIRED AT THIS TIME. JFO SENT INACTIVE LETTER. CLOSED
Spill Cause: PETROLEUM CONTAMINATION FOUND DURING A PHASE II SITE ASSESSMENT

I46 **NIAGARA MOHAWK TRANSFORME** **NY Spills** **S104508167**
WSW **SENECA STREET AT AVONDALE** **NY Hist Spills** **N/A**
1/4-1/2 **BUFFALO, NY**
0.457 mi.
2412 ft. **Site 6 of 6 in cluster I**

Relative:
Higher

Actual:
582 ft.

NY Spills:
Site ID: 248686
Facility Addr2: Not reported
Facility ID: 9975420
Spill Number: 9975420
Facility Type: ER
SWIS: 1502

NIAGARA MOHAWK TRANSFORME (Continued) **S104508167**

Investigator:	JFOTTO
Referred To:	Not reported
Spill Date:	9/21/1999
Reported to Dept:	9/21/1999
CID:	Not reported
Spill Cause:	Equipment Failure
Water Affected:	Not reported
Spill Source:	Commercial/Industrial
Spill Notifier:	Citizen
Cleanup Ceased:	Not reported
Cleanup Meets Std:	True
Last Inspection:	3/22/2000
Recommended Penalty:	Penalty Not Recommended
UST Trust:	False
Spill Class:	Known release with minimal potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt:	3/24/2000
Remediation Phase:	0
Date Entered In Computer:	9/21/1999
Spill Record Last Update:	3/24/2000
Spiller Name:	RICHARD MEYERS
Spiller Company:	NIAGARA MOHAWK
Spiller Address:	300 ERIE BLVD WEST
Spiller City,St,Zip:	SYRACUSE, NY 13201-
Spiller Company:	001
Contact Name:	Not reported
Contact Phone:	Not reported
DEC Region:	9
DER Facility ID:	204031
DEC Memo:	Prior to Sept, 2004 data translation this spill Lead_DEC Field was "JFO" 09/21/99: JFO ON SITE, MET WITH NIAGARA MOHAWK WORKER. HE GAVE ME THE PHONE NUMBER OF HIS SUPERVISOR, JOHN BURKE. STAINING UNDER THREE OF THE FOUR TRANSFORMERS. STAINING HAS BEEN THERE FOR A LONG TIME. JFO CALL TO JOHN BURKE, LEFT MESSAGE ON E-MAIL. JFO CALL TO COMPLAINTANT, I INFORMED HIM OF MY FINDINGS AND TOLD HIM THAT I WAS EXPECTING A CALL FORM NIMO. 09/22/99: JFO TELECON FROM JOHN BURKE. HE WILL SEND SOMEONE OUT THIS MORNING. THEY WILL SPREAD SPEEDY DRY AND CHECK FOR LEAKS. IF THERE ARE ANY LEAKS THEY WILL BE ADDRESSED ASAP. 09/22/99: JFO ON SITE. SPEEDY DRY WAS SPREAD ON STAINED AREAS. 03/24/00: JFO CHECKED SITE FOR ANY LEAKS. NO LEAKS DISCOVERED. NO FURTHER ACTION REQUIRED. CLOSED
Remarks:	TRANSFORMERS LEAKING ON A PAD, CALLER REQUESTS CALLBACK.

Material:

Site ID:	248686
Operable Unit ID:	1091565
Operable Unit:	01
Material ID:	291948
Material Code:	0020A
Material Name:	TRANSFORMER OIL
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	0
Units:	Gallons
Recovered:	No
Resource Affected:	Not reported
Oxygenate:	False

NIAGARA MOHAWK TRANSFORME (Continued) **S104508167**

Tank Test:

Site ID:	Not reported
Spill Tank Test:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported
Leak Rate:	Not reported
Gross Fail:	Not reported
Modified By:	Not reported
Last Modified:	Not reported
Test Method:	Not reported

NY Hist Spills:

Region of Spill:	9
Spill Number:	9975420
Investigator:	JFO
Caller Name:	Not reported
Caller Agency:	Not reported
Caller Phone:	Not reported
Notifier Name:	Not reported
Notifier Agency:	Not reported
Notifier Phone:	Not reported
Spill Date/Time:	09/21/1999 12:00
Reported to Dept Date/Time:	09/21/99 13:08
SWIS:	14
Spiller Name:	NIAGARA MOHAWK
Spiller Contact:	RICHARD MEYERS
Spiller Phone:	(315) 460-2421
Spiller Address:	300 ERIE BLVD WEST
Spiller City,St,Zip:	SYRACUSE, NY 13201-
Spill Cause:	Equipment Failure
Reported to Dept:	On Land
Water Affected:	Not reported
Spill Source:	01
Spill Notifier:	Citizen
PBS Number:	Not reported
Cleanup Ceased:	/ /
Cleanup Meets Std:	True
Last Inspection:	03/22/00
Recommended Penalty:	Penalty Not Recommended
Spiller Cleanup Dt:	/ /
Enforcement Date:	/ /
Invstgn Complete:	/ /
UST Involvement:	False
Spill Class:	Known release with minimal potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt:	03/24/00
Corrective Action Plan Submitted:	/ /
Date Region Sent Summary to Central Office:	/ /
Date Spill Entered In Computer Data File:	09/21/99
Date Spill Entered In Computer Data File:	13:11
Update Date:	03/24/00
Is Updated:	False

Tank:

PBS Number:	Not reported

NIAGARA MOHAWK TRANSFORME (Continued) **S104508167**

Tank Number: Not reported
Tank Size: Not reported
Test Method: Not reported
Leak Rate Failed Tank: Not reported
Gross Leak Rate: Not reported

Material:
Material Class Type: Petroleum
Quantity Spilled: 0
Unkonwn Quantity Spilled: True
Units: Gallons
Quantity Recovered: 0
Unkonwn Quantity Recovered: True
Material: TRANSFORMER OIL
Class Type: TRANSFORMER OIL
Times Material Entry In File: 533
CAS Number: Not reported
Last Date: 19940926
DEC Remarks: 09/21/99: JFO ON SITE, MET WITH NIAGARA MOHAWK WORKER. HE GAVE ME THE PHONE NUMBER OF HIS SUPERVISOR, JOHN BURKE. STAINING UNDER THREE OF THE FOUR TRANSFORMERS. STAINING HAS BEEN THERE FOR A LONG TIME. JFO CALL TO JOHN BURKE, LEFT MESSAGE ON E-MAIL. JFO CALL TO COMPLAINTANT, I INFORMED HIM OF MY FINDINGS AND TOLD HIM THAT I WAS EXPECTING A CALL FORM NIMO. 09/22/99: JFO TELECON FROM JOHN BURKE. HE WILL SEND SOMEONE OUT THIS MORNING. THEY WILL SPREAD SPEEDY DRY AND CHECK FOR LEAKS. IF THERE ARE ANY LEAKS THEY WILL BE ADDRESSED ASAP. 09/22/99: JFO ON SITE. SPEEDY DRY WAS SPREAD ON STAINED AREAS. 03/24/00: JFO CHECKED SITE FOR ANY LEAKS. NO LEAKS DISCOVERED. NO FURTHER ACTION REQUIRED. CLOSED
Remark: TRANSFORMERS LEAKING ON A PAD, CALLER REQUESTS CALLBACK.

J47 **BEST WAY CLEANER** **NY Spills S102178008**
SSW **SENECA & YALE** **NY Hist Spills N/A**
1/4-1/2 **BUFFALO, NY**
0.471 mi.
2488 ft. **Site 1 of 3 in cluster J**

Relative:
Higher

Actual:
589 ft.

NY Spills:
Site ID: 65125
Facility Addr2: Not reported
Facility ID: 9305234
Spill Number: 9305234
Facility Type: ER
SWIS: 1502
Investigator: MXFRANKS
Referred To: Not reported
Spill Date: 7/1/1993
Reported to Dept: 7/27/1993
CID: Not reported
Spill Cause: Deliberate
Water Affected: Not reported
Spill Source: Commercial/Industrial
Spill Notifier: DEC
Cleanup Ceased: 7/27/1993
Cleanup Meets Std: True
Last Inspection: 7/27/1993
Recommended Penalty: Penalty Not Recommended
UST Trust: False
Spill Class: Possible release with minimal potential for fire or hazard or Known

BEST WAY CLEANER (Continued) **S102178008**

release with no damage. No DEC Response. No corrective action required.

Spill Closed Dt: 7/27/1993
Remediation Phase: 0
Date Entered In Computer: 7/29/1993
Spill Record Last Update: 9/29/1999
Spiller Name: Not reported
Spiller Company: BESTWAY CLEANER
Spiller Address: 2075 SENECA STREET
Spiller City,St,Zip: BUFFALO, NY
Spiller Company: 001
Contact Name: Not reported
Contact Phone: Not reported
DEC Region: 9
DER Facility ID: 62608
DEC Memo: Prior to Sept, 2004 data translation this spill Lead_DEC Field was "MF" 07/27/93: MF/SITE - PERCHLOROETHYLENE STORED IN DRUM ON-SITE FOR RECYCLING. NO EVIDENCE OF SPILLAGE ON PROPERTY. USED FILTERS STORED IN 3 DRUMS ON-SITE; PROPERLY LABELED. NO FURTHER ACTION REQUIRED.
Remarks: 30 DRUMS IN GARAGE. PIPE DISCHARGE IN BACK OF CLEANER. LIQUID HAS KILLED GRASS AND IS EYE IRRITANT.

Material:
Site ID: 65125
Operable Unit ID: 986751
Operable Unit: 01
Material ID: 395170
Material Code: 0064A
Material Name: UNKNOWN MATERIAL
Case No.: Not reported
Material FA: Other
Quantity: 0
Units: Pounds
Recovered: No
Resource Affected: Not reported
Oxygenate: False

Tank Test:
Site ID: Not reported
Spill Tank Test: Not reported
Tank Number: Not reported
Tank Size: Not reported
Test Method: Not reported
Leak Rate: Not reported
Gross Fail: Not reported
Modified By: Not reported
Last Modified: Not reported
Test Method: Not reported

NY Hist Spills:
Region of Spill: 9
Spill Number: 9305234
Investigator: MF
Caller Name: Not reported
Caller Agency: Not reported
Caller Phone: Not reported

BEST WAY CLEANER (Continued) **S102178008**

Notifier Name:	Not reported
Notifier Agency:	Not reported
Notifier Phone:	Not reported
Spill Date/Time:	07/01/1993 12:00
Reported to Dept Date/Time:	07/27/93 09:00
SWIS:	14
Spiller Name:	BESTWAY CLEANER
Spiller Contact:	Not reported
Spiller Phone:	(716) 824-9892
Spiller Address:	2075 SENECA STREET
Spiller City,St,Zip:	BUFFALO, NY
Spill Cause:	Deliberate
Reported to Dept:	On Land
Water Affected:	Not reported
Spill Source:	01
Spill Notifier:	DEC
PBS Number:	Not reported
Cleanup Ceased:	07/27/93
Cleanup Meets Std:	True
Last Inspection:	07/27/93
Recommended Penalty:	Penalty Not Recommended
Spiller Cleanup Dt:	/ /
Enforcement Date:	/ /
Invstgn Complete:	/ /
UST Involvement:	False
Spill Class:	Possible release with minimal potential for fire or hazard or Known release with no damage. No DEC Response. No corrective action required.
Spill Closed Dt:	07/27/93
Corrective Action Plan Submitted:	/ /
Date Region Sent Summary to Central Office:	/ /
Date Spill Entered In Computer Data File:	07/29/93
Date Spill Entered In Computer Data File:	Not reported
Update Date:	09/29/99
Is Updated:	False

Tank:

PBS Number:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported
Leak Rate Failed Tank:	Not reported
Gross Leak Rate:	Not reported

Material:

Material Class Type:	Raw Sewage
Quantity Spilled:	0
Unkonwn Quantity Spilled:	True
Units:	Pounds
Quantity Recovered:	0
Unkonwn Quantity Recovered:	True
Material:	UNKNOWN MATERIAL
Class Type:	UNKNOWN MATERIAL
Times Material Entry In File:	9140
CAS Number:	Not reported
Last Date:	19941109
DEC Remarks:	07/27/93: MF/SITE - PERCHLOROETHYLENE STORED IN DRUM ON-SITE FOR RECYCLING. NO EVIDENCE OF SPILLAGE ON PROPERTY. USED FILTERS STORED IN 3 DRUMS ON-SITE;

BEST WAY CLEANER (Continued) **S102178008**

PROPERLY LABELED. NO FURTHER ACTION REQUIRED.
Remark: 30 DRUMS IN GARAGE. PIPE DISCHARGE IN BACK OF CLEANER. LIQUID HAS KILLED GRASS AND IS EYE IRRITANT.

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48 **PIPELINE** **NY Spills** **S106008517**
East **610 MINERAL SPRINGS** **N/A**
1/4-1/2 **WEST SENECA, NY**
0.473 mi.
2498 ft.

Relative:
Higher

Actual:
599 ft.

NY Spills:

Site ID:	158672
Facility Addr2:	Not reported
Facility ID:	0207461
Spill Number:	0207461
Facility Type:	ER
SWIS:	1568
Investigator:	RJJONAK
Referred To:	Not reported
Spill Date:	10/18/2002
Reported to Dept:	10/18/2002
CID:	398
Spill Cause:	Other
Water Affected:	Not reported
Spill Source:	Institutional, Educational, Gov., Other
Spill Notifier:	Responsible Party
Cleanup Ceased:	Not reported
Cleanup Meets Std:	False
Last Inspection:	7/9/2003
Recommended Penalty:	Penalty Not Recommended
UST Trust:	False
Spill Class:	Known release with minimal potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt:	10/21/2003
Remediation Phase:	0
Date Entered In Computer:	10/18/2002
Spill Record Last Update:	2/10/2004
Spiller Name:	DANA SLADE
Spiller Company:	ENBRIDGE ENERGY
Spiller Address:	21 WEST SUPERIOR ST
Spiller City,St,Zip:	DULUTH, MI 55802-
Spiller Company:	001
Contact Name:	DANA SLADE
Contact Phone:	(218) 725-0152
DEC Region:	9
DER Facility ID:	134073
DEC Memo:	Prior to Sept, 2004 data translation this spill Lead_DEC Field was "RJJ" 10/21/2002: RJJ DRAFTED AND SENT A 'RP' LETTER TO ENBRIDGE ENERGY,FOR THEM TO INVESTIGATE THE PROBLEM...RJJ AT SITE AT 1430...MEET WITH GEORGE BARTH,ENBRIDGE,THEY HIRED BOGNAR BROTHERS,# 877-2115,TO EXCAVATE,AND DISPOSE OF THE CONTAMINATED SOIL,WHICH IS ALL AROUND THEIR CRUDE OIL PIPELINE VALVE OFF OF MINERAL SPRINGS ROAD,ON NIAGARA MOHAWK'S PROPERTY...THEY EXCAVATED 12' DEEP X10'X5'AND REMOVED ABOUT 50 TONS OF CONTAMINATED SOIL,WHICH WILL BE TAKEN AND STAGED IN WILLIAMSVILLE,ON THEIR PROPERTY,WITH SAC'S PERMISSION...THE CRUDE OIL WAS A HISTORICAL SMALL LEAK FROM THE PIPELINE VALVE,WHICH THEY WILL REPAIR...THE EXCAVATION LOOKS AND SMELLS CLEAN,AND THEY WILL TAKE WALL/FLOOR SAMPLES AND SEND ME THE

PIPELINE (Continued) **S106008517**

RESULTS. 7/9/2003: RJJ AT SITE AT 1500...ENBRIDGE HAS DECIDED TO REPAIR ANOTHER VALVE IN THE EXCAVATION,SO BOGNAR BROS. ARE EXCAVATING MORE SOIL...THEY FOUND MORE CONTAMINATED SOIL ALONG THE PIPELINE AND WILL DISPOSE OF THIS SOIL AND THE SOIL IN WILLIAMSVILLE TOGETHER...JACK BOGNAR WILL TAKE WALL/FLOOR SAMPLES AND SEND ME THE RESULTS...IT APPEARS THAT THERE IS ONLY A SMALL AMOUNT OF CONTAMINATED SOIL THIS TIME. 8/28/2003: RECEIVED THE ANALYTICAL RESULTS FROM JACK BOGNAR ON THE EXCAVATION...ONLY A FEW COMPOUNDS ARE SLIGHTLY HIGHER THAN OUR TAGA LEVELS,SO AFTER WE RECEIVE THE DISPOSAL RECEIPTS FOR THE SOIL,WE WILL BE ABLE TO MAKE THIS 'INACTIVE'. 10/21/2003: RECEIVED THE DISPOSAL RECEIPTS FOR 86.89 TONS OF SOIL DISPOSED AT MODERN LANDFILL FROM THE SITE,AND THE DISPOSAL RECEIPTS FOR 111.38 TONS OF SOIL,WHICH WAS STAGED ON ENBRIDGE PROPERTY,IN WILLIAMSVILLE...THE SPILL HAS BEEN CLEANED UP AND PROPERLY DISPOSED OF...DRAFTED AND SENT AN 'INACTIVE' LETTER TO 'RP'...NO FURTHER ACTION NEEDED...SPILL CLOSED OUT.

Remarks: hystoric release. spill is underground. no call back needed. spill cause is unknwon, they will dig area and check pipe.

Material:

Site ID:	158672
Operable Unit ID:	860284
Operable Unit:	01
Material ID:	518048
Material Code:	0006
Material Name:	Crude Oil
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	0
Units:	Gallons
Recovered:	No
Resource Affected:	Not reported
Oxygenate:	False

Tank Test:

Site ID:	Not reported
Spill Tank Test:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported
Leak Rate:	Not reported
Gross Fail:	Not reported
Modified By:	Not reported
Last Modified:	Not reported
Test Method:	Not reported

J49 **BESTWAY CLEANERS** **SHWS** **S102175329**
SSW **2075 SENECA STREET** **NY Spills** **N/A**
1/4-1/2 **BUFFALO, NY** **NY Hist Spills**
0.474 mi. **DRYCLEANERS**
2502 ft. **Site 2 of 3 in cluster J**

Relative: Higher

Actual: 589 ft.

SHWS:

Program:	HW
Site Code:	385351
Classification:	SIGNIFICANT THREAT TO THE PUBLIC HEALTH OR ENVIRONMENT - ACTION REQUIRED.

BESTWAY CLEANERS (Continued) **S102175329**

Region:	9
Acres:	.200
HW Code:	915219
Record Add:	8/3/2007 11:55:00 AM
Record Upd:	8/19/2010 10:51:00 AM
Updated By:	AJWHITE
Site Description:	This site consists of an active dry cleaning facility located at 2075 Seneca Street in a densely populated commercial and residential area of the City of Buffalo, Erie County. This site has a 45 year history as a dry cleaner. The mostly paved 0.20 acre site includes a retail building that is the location of a pizzeria and dry cleaner with a paved parking lot in the front and rear of the building. The site is bordered to the north by Seneca Street, to the west by Yale Place, to the east by commercial properties and to the south by residential properties. Approximately 500 feet to the west of the Site is the Pizza Hut Site (V00370) a site in the Brownfields Cleanup Program (BCP). A Site Characterization was completed in 2009.
Env Problem:	The primary contaminants of concern at the site are tetrachloroethene (PCE) and its associated degradation products. Tetrachloroethene (PCE) (4.5 ppm) detected in a soil sample collected at the site, exceed the soil cleanup objective (SCO) for unrestricted use of 1.3 ppm for PCE. Groundwater sampling has revealed that concentrations of PCE (110 ppb), TCE (53 ppb) and cis-1,2 DCE (400 ppb) exceed NYS Class GA groundwater standards. Additionally, soil vapor samples taken on-site and off-site indicate that PCE (25,500 ug/m3), TCE (5,970 ug/m3) and cis-1,2 DCE (56,700 ug/m3) are present in the soil vapor. Investigations indicate that a plume of shallow groundwater contamination extends to the southwest towards a residential area. Due to the contravention of groundwater standards and soil cleanup objectives, the possible impacts to the indoor air quality of the nearby homes and businesses and the threat of direct contact through soil excavation this site poses a significant threat to the environment.
Health Problem:	Elevated levels of perchlorethylene found in groundwater and soil vapor on the site and in the residential area near the site present an exposure potential to occupied residences. Further investigation is needed in this area The area is served by public water, so exposures via this route are not expected.
Dump:	False
Structure:	True
Lagoon:	False
Landfill:	False
Pond:	False
Disp Start:	Not reported
Disp Term:	Not reported
Lat/Long:	Not reported
Dell:	Not reported
Record Add:	8/16/2007 11:18:00 AM
Record Upd:	8/28/2009 8:33:00 AM
Updated By:	mddunham
Own Op:	On-Site Operator
Sub Type:	E
Owner Name:	MICHAEL ORLANDO
Owner Company:	BESTWAY CLEANERS
Owner Address:	2075 SENECA STREET
Owner Addr2:	Not reported
Owner City,St,Zip:	BUFFALO, NY 14210

BESTWAY CLEANERS (Continued) **S102175329**

Owner Country:	United States of America
Own Op:	Owner
Sub Type:	E
Owner Name:	MICHAEL ORLANDO
Owner Company:	BESTWAY CLEANERS INCORPORATED
Owner Address:	2075 SENECA STREET
Owner Addr2:	Not reported
Owner City,St,Zip:	BUFFALO, NY 14210
Owner Country:	United States of America
HW Code:	915219
Waste Type:	TETRACHLOROETHYLENE (PCE)
Waste Quantity:	UNKNOWN
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

NY Spills:

Site ID:	236976
Facility Addr2:	Not reported
Facility ID:	8603986
Spill Number:	8603986
Facility Type:	ER
SWIS:	1502
Investigator:	LEARY
Referred To:	Not reported
Spill Date:	9/18/1986
Reported to Dept:	9/18/1986
CID:	Not reported
Spill Cause:	Unknown
Water Affected:	Not reported
Spill Source:	Commercial/Industrial
Spill Notifier:	Affected Persons
Cleanup Ceased:	10/7/1986
Cleanup Meets Std:	True
Last Inspection:	Not reported
Recommended Penalty:	Penalty Not Recommended
UST Trust:	False
Spill Class:	Not reported
Spill Closed Dt:	10/7/1986
Remediation Phase:	0
Date Entered In Computer:	9/23/1986
Spill Record Last Update:	10/21/1986
Spiller Name:	Not reported
Spiller Company:	BESTWAY CLEANERS
Spiller Address:	2075 SENECA STREET
Spiller City,St,Zip:	BUFFALO, ZZ
Spiller Company:	001
Contact Name:	Not reported
Contact Phone:	Not reported
DEC Region:	9
DER Facility ID:	195229
DEC Memo:	Prior to Sept, 2004 data translation this spill Lead_DEC Field was "RNL" / / : REFERED TO AIR, H.SANDANATO, 09/18/86 1315HRS. / / :

BESTWAY CLEANERS (Continued) **S102175329**

REFERRED TO AIR, H.SANDANATO, 09/18/86 1315; AIR, H. SANDANATO, SATISFIED 10/07/86, CLOSED SYSTEM, NO CLEANUP REQUIRED. 09/29/95: This is additional information about material spilled from the translation of the old spill file: TRICHOROETHENE.

Remarks: AIR RELEASE

Material:

Site ID:	Not reported
Operable Unit ID:	Not reported
Operable Unit:	Not reported
Material ID:	Not reported
Material Code:	Not reported
Material Name:	Not reported
Case No.:	Not reported
Material FA:	Not reported
Quantity:	Not reported
Units:	Not reported
Recovered:	Not reported
Resource Affected:	Not reported
Oxygenate:	Not reported

Tank Test:

Site ID:	Not reported
Spill Tank Test:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported
Leak Rate:	Not reported
Gross Fail:	Not reported
Modified By:	Not reported
Last Modified:	Not reported
Test Method:	Not reported

NY Hist Spills:

Region of Spill:	9
Spill Number:	8603986
Investigator:	RNL
Caller Name:	Not reported
Caller Agency:	Not reported
Caller Phone:	Not reported
Notifier Name:	Not reported
Notifier Agency:	Not reported
Notifier Phone:	Not reported
Spill Date/Time:	09/18/1986 13:05
Reported to Dept Date/Time:	09/18/86 13:05
SWIS:	14
Spiller Name:	BESTWAY CLEANERS
Spiller Contact:	Not reported
Spiller Phone:	Not reported
Spiller Address:	2075 SENECA STREET
Spiller City,St,Zip:	BUFFALO
Spill Cause:	Unknown
Reported to Dept:	Air
Water Affected:	Not reported
Spill Source:	01
Spill Notifier:	Affected Persons

BESTWAY CLEANERS (Continued) **S102175329**

PBS Number: Not reported
Cleanup Ceased: 10/07/86
Cleanup Meets Std: True
Last Inspection: / /
Recommended Penalty: Penalty Not Recommended
Spiller Cleanup Dt: / /
Enforcement Date: / /
Invstgn Complete: / /
UST Involvement: False
Spill Class: Not reported
Spill Closed Dt: 10/07/86
Corrective Action Plan Submitted: / /
Date Region Sent Summary to Central Office: / /
Date Spill Entered In Computer Data File: 09/23/86
Date Spill Entered In Computer Data File: Not reported
Update Date: 10/21/86
Is Updated: False

Tank:
PBS Number: Not reported
Tank Number: Not reported
Tank Size: Not reported
Test Method: Not reported
Leak Rate Failed Tank: Not reported
Gross Leak Rate: Not reported

Material:
Material Class Type: Not reported
Quantity Spilled: Not reported
Unkonwn Quantity Spilled: Not reported
Units: Not reported
Quantity Recovered: Not reported
Unkonwn Quantity Recovered: Not reported
Material: Not reported
Class Type: Not reported
Times Material Entry In File: Not reported
CAS Number: Not reported
Last Date: Not reported
DEC Remarks: / / : REFERED TO AIR, H.SANDANATO, 09/18/86 1315HRS. / / : REFERRED TO AIR, H.SANDANATO, 09/18/86 1315; AIR, H. SANDANATO, SATISFIED 10/07/86, CLOSED SYSTEM, NO CLEANUP REQUIRED. 09/29/95: This is additional information about material spilled from the translation of the old spill file: TRICHOROETHENE.
Remark: AIR RELEASE

DRYCLEANERS:
Facility ID: 9-1402-00910
Phone Number: Not reported
Region: 9
Registration Effective Date: 7/3/2000 10:24:41:156
Inspection Date: 07JUN4
Install Date: Not reported
Drop Shop: Not reported
Shutdown: Not reported
Alternate Solvent: Not reported
Current Business: PERC DRY CLEANER

J50 **LEO'S PIZZARIA** **NY Spills** **S106001717**
SSW **2077 SENECA ST** **N/A**
1/4-1/2 **BUFFALO, NY**
0.475 mi.
2509 ft. **Site 3 of 3 in cluster J**

Relative:
Higher

Actual:
589 ft.

NY Spills:

Site ID:	254583
Facility Addr2:	Not reported
Facility ID:	0111624
Spill Number:	0111624
Facility Type:	ER
SWIS:	1502
Investigator:	JFOTTO
Referred To:	Not reported
Spill Date:	3/1/2002
Reported to Dept:	3/9/2002
CID:	211
Spill Cause:	Human Error
Water Affected:	Not reported
Spill Source:	Commercial/Industrial
Spill Notifier:	Citizen
Cleanup Ceased:	Not reported
Cleanup Meets Std:	True
Last Inspection:	3/11/2002
Recommended Penalty:	Penalty Not Recommended
UST Trust:	False
Spill Class:	Possible release with minimal potential for fire or hazard or Known release with no damage. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt:	3/12/2002
Remediation Phase:	0
Date Entered In Computer:	3/9/2002
Spill Record Last Update:	3/12/2002
Spiller Name:	Not reported
Spiller Company:	LEO'S PIZZARIA
Spiller Address:	2077 SENECA ST
Spiller City,St,Zip:	BUFFALO, NY
Spiller Company:	001
Contact Name:	Not reported
Contact Phone:	Not reported
DEC Region:	9
DER Facility ID:	208514
DEC Memo:	Prior to Sept, 2004 data translation this spill Lead_DEC Field was "JFO" 03/11/02 JFO ON SITE MET WITH LEO. IN THE BACK OF THE BUILDING WHERE HE STORES HIS SPENT COOKING OIL THERE IS SOME SPILLAGE (NOT RECENT). HE SAID HE WILL SCRAPE UP WHAT HE CAN AND DISPOSE. IT WAS PROBABLY CAUSED BY A PLOW WHEN WE HAD ALL THE SNOW. NO FURTHER ACTION POSSIBLE. CLOSED. THERE IS NO PAPER FILE FOR THIS SPILL
Remarks:	CALLER STATES EMPLOYEES FROM PIZZARIA DUMP COOKING OIL IN ALLEY REAR OF BUSINESS - NO CLEAN UP

Material:

Site ID:	254583
Operable Unit ID:	848577
Operable Unit:	01
Material ID:	525645
Material Code:	0820A
Material Name:	COOKING OIL
Case No.:	Not reported

LEO'S PIZZARIA (Continued) **S106001717**

Material FA:	Other
Quantity:	0
Units:	Gallons
Recovered:	No
Resource Affected:	Not reported
Oxygenate:	False

Tank Test:

Site ID:	Not reported
Spill Tank Test:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported
Leak Rate:	Not reported
Gross Fail:	Not reported
Modified By:	Not reported
Last Modified:	Not reported
Test Method:	Not reported

51
NNW
1/4-1/2
0.483 mi.
2548 ft.

SMALL MIRACLES CHILD CARE
160 WEISS STREET
BUFFALO, NY

NY Spills **S102178368**
NY Hist Spills **N/A**

Relative:
Higher

Actual:
593 ft.

NY Spills:

Site ID:	124826
Facility Addr2:	Not reported
Facility ID:	9313327
Spill Number:	9313327
Facility Type:	ER
SWIS:	1502
Investigator:	COOKE
Referred To:	Not reported
Spill Date:	2/8/1994
Reported to Dept:	2/8/1994
CID:	Not reported
Spill Cause:	Unknown
Water Affected:	Not reported
Spill Source:	Unknown
Spill Notifier:	Local Agency
Cleanup Ceased:	2/8/1994
Cleanup Meets Std:	True
Last Inspection:	Not reported
Recommended Penalty:	Penalty Not Recommended
UST Trust:	False
Spill Class:	No spill occured. No DEC Response. No corrective action required.
Spill Closed Dt:	2/8/1994
Remediation Phase:	0
Date Entered In Computer:	2/11/1994
Spill Record Last Update:	5/20/1996
Spiller Name:	Not reported
Spiller Company:	UNKNOWN
Spiller Address:	Not reported
Spiller City,St,Zip:	NY
Spiller Company:	999

SMALL MIRACLES CHILD CARE (Continued) **S102178368**

Contact Name:	Not reported
Contact Phone:	Not reported
DEC Region:	9
DER Facility ID:	108062
DEC Memo:	Prior to Sept, 2004 data translation this spill Lead_DEC Field was "JDC" 02/08/94: JDC/LYNN OFFHAUS, SMALL MIRACLES OWNER/TELECON - SHE REPORTED THAT ODORS WERE SULFUR/SEWAGE. WHEN ASKED IF SIMILAR TO GASOLINE OR FUEL OIL, SHE SAID NO. BSA ON-SITE. ADVISED ECHD. NO FURTHER ACTION.
Remarks:	BSA RESPONDED TO CALL FROM SMALL MIRACLES CHILD CARE SAYING THERE WAS AN UNKNOWN ODOR IN BUILDING.

Material:

Site ID:	124826
Operable Unit ID:	995353
Operable Unit:	01
Material ID:	388711
Material Code:	0064A
Material Name:	UNKNOWN MATERIAL
Case No.:	Not reported
Material FA:	Other
Quantity:	0
Units:	Pounds
Recovered:	No
Resource Affected:	Not reported
Oxygenate:	False

Tank Test:

Site ID:	Not reported
Spill Tank Test:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported
Leak Rate:	Not reported
Gross Fail:	Not reported
Modified By:	Not reported
Last Modified:	Not reported
Test Method:	Not reported

NY Hist Spills:

Region of Spill:	9
Spill Number:	9313327
Investigator:	JDC
Caller Name:	Not reported
Caller Agency:	Not reported
Caller Phone:	Not reported
Notifier Name:	Not reported
Notifier Agency:	Not reported
Notifier Phone:	Not reported
Spill Date/Time:	02/08/1994 11:00
Reported to Dept Date/Time:	02/08/94 15:30
SWIS:	14
Spiller Name:	UNKNOWN
Spiller Contact:	Not reported
Spiller Phone:	Not reported
Spiller Address:	Not reported

SMALL MIRACLES CHILD CARE (Continued) **S102178368**

Spiller City,St,Zip: Not reported
Spill Cause: Unknown
Reported to Dept: Air
Water Affected: Not reported
Spill Source: 12
Spill Notifier: Local Agency
PBS Number: Not reported
Cleanup Ceased: 02/08/94
Cleanup Meets Std: True
Last Inspection: / /
Recommended Penalty: Penalty Not Recommended
Spiller Cleanup Dt: / /
Enforcement Date: / /
Invstgn Complete: / /
UST Involvement: False
Spill Class: No spill occured. No DEC Response. No corrective action required.
Spill Closed Dt: 02/08/94
Corrective Action Plan Submitted: / /
Date Region Sent Summary to Central Office: / /
Date Spill Entered In Computer Data File: 02/11/94
Date Spill Entered In Computer Data File: Not reported
Update Date: 05/20/96
Is Updated: False

Tank:
PBS Number: Not reported
Tank Number: Not reported
Tank Size: Not reported
Test Method: Not reported
Leak Rate Failed Tank: Not reported
Gross Leak Rate: Not reported

Material:
Material Class Type: Raw Sewage
Quantity Spilled: 0
Unkonwn Quantity Spilled: True
Units: Pounds
Quantity Recovered: 0
Unkonwn Quantity Recovered: True
Material: UNKNOWN MATERIAL
Class Type: UNKNOWN MATERIAL
Times Material Entry In File: 9140
CAS Number: Not reported
Last Date: 19941109
DEC Remarks: 02/08/94: JDC/LYNN OFFHAUS, SMALL MIRACLES OWNER/TELECON - SHE REPORTED THAT ODORS WERE SULFUR/SEWAGE. WHEN ASKED IF SIMILAR TO GASOLINE OR FUEL OIL, SHE SAID NO. BSA ON-SITE. ADVISED ECHD. NO FURTHER ACTION.
Remark: BSA RESPONDED TO CALL FROM SMALL MIRACLES CHILD CARE SAYING THERE WAS AN UNKNOWN ODOR IN BUILDING.

52
North
1/4-1/2
0.495 mi.
2613 ft.

HECTOR'S HARDWARE
1955 CLINTON STREET
BUFFALO, NY

NY Spills **S102403052**
NY Hist Spills **N/A**

Relative:
Higher

Actual:
592 ft.

NY Spills:

Site ID:	101018
Facility Addr2:	Not reported
Facility ID:	9608157
Spill Number:	9608157
Facility Type:	ER
SWIS:	1502
Investigator:	PRINGLE
Referred To:	Not reported
Spill Date:	9/30/1996
Reported to Dept:	9/29/1996
CID:	196
Spill Cause:	Housekeeping
Water Affected:	Not reported
Spill Source:	Commercial/Industrial
Spill Notifier:	Citizen
Cleanup Ceased:	Not reported
Cleanup Meets Std:	True
Last Inspection:	9/30/1996
Recommended Penalty:	Penalty Not Recommended
UST Trust:	False
Spill Class:	Possible release with minimal potential for fire or hazard or Known release with no damage. No DEC Response. No corrective action required.
Spill Closed Dt:	9/30/1996
Remediation Phase:	0
Date Entered In Computer:	9/30/1996
Spill Record Last Update:	10/9/1996
Spiller Name:	WILLIAM MALCZENSKI
Spiller Company:	HECTOR'S HARDWARE
Spiller Address:	1955 CLINTON STREET
Spiller City,St,Zip:	BUFFALO, NY
Spiller Company:	001
Contact Name:	Not reported
Contact Phone:	Not reported
DEC Region:	9
DER Facility ID:	89571
DEC Memo:	Prior to Sept, 2004 data translation this spill Lead_DEC Field was "MNP" ********** NOTE: SPILL ACTUALLY RECEIVED ON 9/30/96. ********** 09/30/96: MNP INSP. MET W/ WILLIAM MALCZENSKI - HECTOR'S HARDWARE. HE RECEIVED LAWNMOWER FOR REPAIR THAT WAS LEAKING GASOLINE, HE PUSHED LAWNMOWER TO GRASS AREA NEXT TO CURB TO ALLOW REMAINING GASOLINE (ABOUT 1 PINT) TO LEAK OUT. I CHECKED AREA, NO CLEANUP POSSIBLE. I ADVISED MR MALCZENSKI TO CONTAIN & CLEANUP SPILLS IN THE FUTURE, HE AGREED TO COMPLY. I ALSO ASKED HIM WHERE HE DISPOSES OF USED OIL FROM LAWNMOWER REPAIR. HE SAID OIL IS DROPPED OFF AT MR. OIL CHANGE. NO FURTHER ACTION NEEDED, COMPLETE.
Remarks:	COMPANY REPAIRS LAWN MOWERS AND DUMPS GASOLINE IN GRASS NEAR CURB ON SIDE STREET(HOLLY ST.)

Material:

Site ID:	101018

HECTOR'S HARDWARE (Continued) **S102403052**

Operable Unit ID:	1036421
Operable Unit:	01
Material ID:	343897
Material Code:	0009
Material Name:	Gasoline
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	1
Units:	Gallons
Recovered:	No
Resource Affected:	Not reported
Oxygenate:	False

Tank Test:

Site ID:	Not reported
Spill Tank Test:	Not reported
Tank Number:	Not reported
Tank Size:	Not reported
Test Method:	Not reported
Leak Rate:	Not reported
Gross Fail:	Not reported
Modified By:	Not reported
Last Modified:	Not reported
Test Method:	Not reported

NY Hist Spills:

Region of Spill:	9
Spill Number:	9608157
Investigator:	MNP
Caller Name:	Not reported
Caller Agency:	Not reported
Caller Phone:	Not reported
Notifier Name:	Not reported
Notifier Agency:	Not reported
Notifier Phone:	Not reported
Spill Date/Time:	09/30/1996 14:00
Reported to Dept Date/Time:	09/29/96 14:50
SWIS:	14
Spiller Name:	HECTOR'S HARDWARE
Spiller Contact:	WILLIAM MALCZENSKI
Spiller Phone:	(716) 823-1700
Spiller Phone:	( ) -
Spiller Address:	1955 CLINTON STREET
Spiller City,St,Zip:	BUFFALO, NY
Spill Cause:	Housekeeping
Reported to Dept:	On Land
Water Affected:	Not reported
Spill Source:	01
Spill Notifier:	Citizen
PBS Number:	Not reported
Cleanup Ceased:	/ /
Cleanup Meets Std:	True
Last Inspection:	09/30/96
Recommended Penalty:	Penalty Not Recommended
Spiller Cleanup Dt:	/ /

HECTOR'S HARDWARE (Continued) **S102403052**

Enforcement Date: / /
Invstgn Complete: / /
UST Involvement: False
Spill Class: Possible release with minimal potential for fire or hazard or Known release with no damage. No DEC Response. No corrective action required.
Spill Closed Dt: 09/30/96
Corrective Action Plan Submitted: / /
Date Region Sent Summary to Central Office: / /
Date Spill Entered In Computer Data File: 09/30/96
Date Spill Entered In Computer Data File: Not reported
Update Date: 10/09/96
Is Updated: False

Tank:
PBS Number: Not reported
Tank Number: Not reported
Tank Size: Not reported
Test Method: Not reported
Leak Rate Failed Tank: Not reported
Gross Leak Rate: Not reported

Material:
Material Class Type: Petroleum
Quantity Spilled: 1
Unkonwn Quantity Spilled: False
Units: Gallons
Quantity Recovered: 0
Unkonwn Quantity Recovered: False
Material: GASOLINE
Class Type: GASOLINE
Times Material Entry In File: 21329
CAS Number: Not reported
Last Date: 19940929
DEC Remarks: ********** NOTE: SPILL ACTUALLY RECEIVED ON 9/30/96. ********** 09/30/96: MNP INSP. MET W/ WILLIAM MALCZENSKI - HECTOR S HARDWARE. HE RECEIVED LAWNMOWER FOR REPAIR THAT WAS LEAKING GASOLINE, HE PUSHED LAWNMOWER TO GRASS AREA NEXT TO CURB TO ALLOW REMAINING GASOLINE ABOUT 1 PINT) TO LEAK OUT. I CHECKED AREA, NO CLEANUP POSSIBLE. I ADVISED MR MALCZENSKI TO CONTAIN CLEANUP SPILLS IN THE FUTURE, HE AGREED TO COMPLY. I ALSO ASKED HIM WHERE HE DISPOSES OF USED OIL FROM LAWNMOWER REPAIR. HE SAID OIL IS DROPPED OFF AT MR. OIL CHANGE. NO FURTHER ACTION NEEDED, COMPLETE.
Remark: COMPANY REPAIRS LAWN MOWERS AND DUMPS GASOLINE IN GRASS NEAR CURB ON SIDE STREET HOLLY ST.)

53
West
1/4-1/2
0.499 mi.
2637 ft.

ENGINE #25 & PRECINCT #9
1729 SENECA STREET
BUFFALO, NY

LTANKS **S104192136**
HIST LTANKS **N/A**

Relative:
Higher

Actual:
582 ft.

LTANKS:
Site ID: 241542
Spill No: 9975439
Spill Date: 9/28/1999
Spill Cause: Tank Failure
Spill Source: Institutional, Educational, Gov., Other

ENGINE #25 & PRECINCT #9 (Continued) **S104192136**

Spill Class:	Known release with minimal potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt:	1/21/2000
Facility Addr2:	Not reported
Cleanup Ceased:	Not reported
Cleanup Meets Standard:	False
SWIS:	1502
Investigator:	JFOTTO
Referred To:	Not reported
Reported to Dept:	9/28/1999
CID:	Not reported
Water Affected:	Not reported
Spill Notifier:	Responsible Party
Last Inspection:	10/1/1999
Recommended Penalty:	Penalty Not Recommended
UST Involvement:	True
Remediation Phase:	0
Date Entered In Computer:	9/28/1999
Spill Record Last Update:	8/3/2004
Spiller Name:	JIM SMITH
Spiller Company:	CITY OF BUFFALO
Spiller Address:	CITY HALL
Spiller City,St,Zip:	BUFFALO, NY
Spiller County:	001
Spiller Contact:	Not reported
Spiller Phone:	Not reported
Spiller Extention:	Not reported
DEC Region:	9
DER Facility ID:	198560
Remarks:	WHILE REMOVING UST'S, CONTAMINATED SOIL WAS DISCOVERED.

Material:

Site ID:	241542
Operable Unit ID:	1091585
Operable Unit:	01
Material ID:	291970
Material Code:	0009
Material Name:	Gasoline
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	0
Units:	Gallons
Recovered:	No
Resource Affected:	Not reported
Oxygenate:	False
Site ID:	241542
Operable Unit ID:	1091585
Operable Unit:	01
Material ID:	291969
Material Code:	0008
Material Name:	Diesel
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	0
Units:	Gallons
Recovered:	No
Resource Affected:	Not reported

ENGINE #25 & PRECINCT #9 (Continued) **S104192136**

Oxygenate: False

Tank Test:
Site ID: Not reported
Spill Tank Test: Not reported
Tank Number: Not reported
Tank Size: Not reported
Test Method: Not reported
Leak Rate: Not reported
Gross Fail: Not reported
Modified By: Not reported
Last Modified: Not reported
Test Method: Not reported

HIST LTANKS:
Region of Spill: 9
Spill Number: 9975439
Spill Date: 09/28/1999
Spill Time: 10:30
Spill Cause: Tank Failure
Resource Affectd: Groundwater
Water Affected: Not reported
Spill Source: Other Non Commercial/Industrial
Spill Class: Known release with minimal potential for fire or hazard. DEC Response. Willing Responsible Party. Corrective action taken.
Spill Closed Dt: 01/21/00
Cleanup Ceased: / /
Cleanup Meets Standard: False
Investigator: JFO
Caller Name: Not reported
Caller Agency: Not reported
Caller Phone: Not reported
Caller Extension: Not reported
Notifier Name: Not reported
Notifier Agency: Not reported
Notifier Phone: Not reported
Notifier Extension: Not reported
Reported to Department Date: 09/28/99
Reported to Department Time: 10:45
SWIS: 14
Spiller Contact: Not reported
Spiller Phone: Not reported
Spiller Extention: Not reported
Spiller Name: CITY OF BUFFALO
Spiller Address: CITY HALL
Spiller City,St,Zip: BUFFALO, NY
Spiller Cleanup Date: / /
Facility Contact: JIM SMITH
Facility Phone: (716) 851-4852
Facility Extention: Not reported
Spill Notifier: Responsible Party
PBS Number: Not reported
Last Inspection: 10/01/99
Recommended Penalty: Penalty Not Recommended
Enforcement Date: / /

ENGINE #25 & PRECINCT #9 (Continued) **S104192136**

Investigation Complete: / /
UST Involvement: True
Date Region Sent Summary to Central Office: / /
Corrective Action Plan Submitted: / /
Date Spill Entered In Computer Data File: 09/28/99
Time Spill Entered In Computer Data File: 10:54
Spill Record Last Update: 01/25/00
Is Updated: False

Tank:
PBS Number: Not reported
Tank Number: Not reported
Tank Size: Not reported
Test Method: Not reported
Leak Rate Failed Tank: Not reported
Gross Leak Rate: Not reported

Material:
Material Class Type: Petroleum
Quantity Spilled: 0
Unkonwn Quantity Spilled: True
Units: Gallons
Quantity Recovered: 0
Unkonwn Quantity Recovered: True
Material: DIESEL
Class Type: DIESEL
Times Material Entry In File: 10625
CAS Number: Not reported
Last Date: 19940728
Material Class Type: Petroleum
Quantity Spilled: 0
Unkonwn Quantity Spilled: True
Units: Gallons
Quantity Recovered: 0
Unkonwn Quantity Recovered: True
Material: GASOLINE
Class Type: GASOLINE
Times Material Entry In File: 21329
CAS Number: Not reported
Last Date: 19940929

DEC Remarks: 09/28/99: JFO SITE INSPECTION, MET KAREN WEHN. TWO TANKS WERE REMOVED FROM ONE HOLE. SLIGHTLY CONTAMINATED SOIL STAGED ON PLASTIC AND SAMPLED. THIRD TANK WILL BE OUT LATER TODAY SAME HOLE). 09/30/99: JFO SITE INSPECTION, CONTAMINATED SOIL BEINGREMOVED. HOLE ABOUT 10 DEEP. CONTAMINATION HEADING TOWARD SOUTHSIDE PKWY. OPERATIOR WILL CALL ME FOR AN INSPECTION BEFORE HE BACKFILLS. ALL TANKS ARE OUT. A NEW TANK WILL BE INSTALLED. 10/01/99: JFO SITE INSPECTION, TYREE INSTALLING SLOTTED PIPE IN EXCAVATION AND THEN BACKFILL. BOTTOM SAMPLE COLLECTED ALONG WITH SIDEWALL SAMPLES. 12/23/99: JFO RECEIVED ANALYTICAL RESULTS. FLOOR SAMPLE HAS BENZENE AT 97 PPB, ALL OTHER RESULTS ARE BELOW STARS MEMO. THIS SITE WILL BE INACTIVE WHEN WE GET DISPOSAL RECEIPTS. 12/27/99: JFO TELECON WITH JIM BISHOP OF TYREE. HE WILL FORWARD DISPOSAL RECEIPTS WHEN HE RECEIVES THEM. 01/21/00: JFO TELECON WITH JIM BISHOP OF TYREE. HE WILL LOCATE DISPOSAL RECEIPTS AND FAX. 01/21/00: JFO RECEIVED DISPOSALRECEIPTS. THIS SITE CAN BE MADE INACTIVE. NO FURTHER ACTION REQUIRED AT THIS TIME. INACTIVE LETTER TO BE SENT, CLOSED

Spill Cause: WHILE REMOVING UST S, CONTAMINATED SOIL WAS DISCOVERED.

K54
SSE
1/2-1
0.611 mi.
3224 ft.

ORBAN
324 INDIAN CHURCH RD.
WEST SENECA, NY 14210

Site 1 of 2 in cluster K

CORRACTS **1000150022**
RCRA-NonGen **NYD096300561**
FINDS
MANIFEST

Relative:
Higher

Actual:
594 ft.

CORRACTS:

EPA ID:	NYD096300561
EPA Region:	02
Area Name:	SITEWIDE
Actual Date:	01/13/2004
Action:	CA075LO - CA Prioritization, Facility or area was assigned a low corrective action priority
NAICS Code(s):	331222 Steel Wire Drawing
Original schedule date:	Not reported
Schedule end date:	Not reported

EPA ID:	NYD096300561
EPA Region:	02
Area Name:	SITEWIDE
Actual Date:	03/02/1995
Action:	CA225NR - Stabilization Measures Evaluation, This facility is, not amenable to stabilization activity at the, present time for reasons other than (1) it appears to be technically, infeasible or inappropriate (NF) or (2) there is a lack of technical, information (IN). Reasons for this conclusion may be the status of, closure at the facility, the degree of risk, timing considerations, the status of corrective action work at the facility, or other, administrative considerations
NAICS Code(s):	331222 Steel Wire Drawing
Original schedule date:	Not reported
Schedule end date:	Not reported

EPA ID:	NYD096300561
EPA Region:	02
Area Name:	SITEWIDE
Actual Date:	03/20/1995
Action:	CA070YE - RFA Determination Of Need For An RFI, RFI is Necessary
NAICS Code(s):	331222 Steel Wire Drawing
Original schedule date:	Not reported
Schedule end date:	Not reported

EPA ID:	NYD096300561
EPA Region:	02
Area Name:	SITEWIDE
Actual Date:	03/20/1995
Action:	CA225NR - Stabilization Measures Evaluation, This facility is, not amenable to stabilization activity at the, present time for reasons other than (1) it appears to be technically, infeasible or inappropriate (NF) or (2) there is a lack of technical, information (IN). Reasons for this conclusion may be the status of, closure at the facility, the degree of risk, timing considerations, the status of corrective action work at the facility, or other, administrative considerations
NAICS Code(s):	331222

ORBAN (Continued) **1000150022**

Steel Wire Drawing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD096300561
EPA Region: 02
Area Name: SITEWIDE
Actual Date: 03/20/1995
Action: CA210SF - CA Responsibility Referred To A Non-RCRA Federal Authority, Corrective Action at the facility or area referred to CERCLA
NAICS Code(s): 331222
Steel Wire Drawing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD096300561
EPA Region: 02
Area Name: SITEWIDE
Actual Date: 03/20/1995
Action: CA050 - RFA Completed
NAICS Code(s): 331222
Steel Wire Drawing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD096300561
EPA Region: 02
Area Name: SITEWIDE
Actual Date: 09/08/1993
Action: CA075HI - CA Prioritization, Facility or area was assigned a high corrective action priority
NAICS Code(s): 331222
Steel Wire Drawing
Original schedule date: Not reported
Schedule end date: Not reported

RCRA-NonGen:
Date form received by agency: 01/01/2007
Facility name: ORBAN
Facility address: 324 INDIAN CHURCH RD
WEST SENECA, NY 142101928
EPA ID: NYD096300561
Mailing address: PO BOX 46 S PARK FINANCE STA
BUFFALO, NY 14220
Contact: Not reported
Contact address: PO BOX 46 S PARK FINANCE STA
BUFFALO, NY 14220
Contact country: US
Contact telephone: Not reported
Contact email: Not reported
EPA Region: 02
Land type: Facility is not located on Indian land. Additional information is not known.
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

ORBAN (Continued) **1000150022**

Owner/operator name: ORBAN INDUSTRIES INC
Owner/operator address: PO BOX 46 S PARK FINANCE STA
OPERCITY, NY 99999
Owner/operator country: US
Owner/operator telephone: (716) 824-5757
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: KURT ORBAN CO INC
Owner/operator address: 1 ORBAN WAY
WAYNE, NJ 07470
Owner/operator country: US
Owner/operator telephone: (800) 631-3692
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler accessibilty indicator: Transferred to the program or state equivalent.

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 01/01/2006
Facility name: ORBAN
Classification: Not a generator, verified

Date form received by agency: 02/08/1999
Facility name: ORBAN
Classification: Large Quantity Generator

Date form received by agency: 11/19/1980
Facility name: ORBAN
Classification: Not a generator, verified

Date form received by agency: 08/18/1980
Facility name: ORBAN
Classification: Large Quantity Generator

ORBAN (Continued) **1000150022**

Corrective Action Summary:

Event date:	09/08/1993
Event:	CA Prioritization, Facility or area was assigned a high corrective action priority.
Event date:	03/02/1995
Event:	Stabilization Measures Evaluation,This facility is not amenable to stabilization activity at the present time for reasons other than 1- it appears to be technically infeasible or inappropriate (NF) or 2- there is a lack of technical information (IN). Reasons for this conclusion may be the status of closure at the facility, the degree of risk, timing considerations, the status of corrective action work at the facility, or other administrative considerations.
Event date:	03/20/1995
Event:	RFA Completed
Event date:	03/20/1995
Event:	RFA Determination Of Need For An RFI, RFI is Necessary;
Event date:	03/20/1995
Event:	Stabilization Measures Evaluation,This facility is not amenable to stabilization activity at the present time for reasons other than 1- it appears to be technically infeasible or inappropriate (NF) or 2- there is a lack of technical information (IN). Reasons for this conclusion may be the status of closure at the facility, the degree of risk, timing considerations, the status of corrective action work at the facility, or other administrative considerations.
Event date:	03/20/1995
Event:	CA Responsibility Referred To A Non-RCRA Federal Authority, Corrective Action at the facility or area referred to CERCLA.
Event date:	01/13/2004
Event:	CA Prioritization, Facility or area was assigned a low corrective action priority.
Violation Status:	No violations found

Evaluation Action Summary:

Evaluation date:	07/15/1987
Evaluation:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation:	Not reported
Date achieved compliance:	Not reported
Evaluation lead agency:	State

FINDS:

Registry ID: 110000701394

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

ORBAN (Continued) **1000150022**

ICIS (Integrated Compliance Information System) is the Integrated Compliance Information System and provides a database that, when complete, will contain integrated Enforcement and Compliance information across most of EPA's programs. The vision for ICIS is to replace EPA's independent databases that contain Enforcement data with a single repository for that information. Currently, ICIS contains all Federal Administrative and Judicial enforcement actions. This information is maintained in ICIS by EPA in the Regional offices and it Headquarters. A future release of ICIS will replace the Permit Compliance System (PCS) which supports the NPDES and will integrate that information with Federal actions already in the system. ICIS also has the capability to track other activities occurring in the Region that support Compliance and Enforcement programs. These include; Incident Tracking, Compliance Assistance, and Compliance Monitoring.

NY MANIFEST:

EPA ID:	NYD096300561
Country:	USA
Mailing Name:	ORBAN INDUSTRIES INCORPORATED
Mailing Contact:	RYON AL PLANT ENGINEER
Mailing Address:	PO BOX 46 SOUTH PARK FINANCE S
Mailing Address 2:	Not reported
Mailing City:	BUFFALO
Mailing State:	NY
Mailing Zip:	14220
Mailing Zip4:	Not reported
Mailing Country:	USA
Mailing Phone:	716-824-5757

Document ID:	NYO1168353
Manifest Status:	Completed copy
Trans1 State ID:	9A 065
Trans2 State ID:	Not reported
Generator Ship Date:	820126
Trans1 Recv Date:	820126
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	820126
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported
Generator EPA ID:	NYD096300561
Trans1 EPA ID:	NYD080340094
Trans2 EPA ID:	Not reported
TSDF ID:	NYD080336241
Waste Code:	K063 - DELETE 11/12/80
Quantity:	00015
Units:	Y - Cubic yards* (.85 tons)
Number of Containers:	001
Container Type:	CM - Metal boxes, cases, roll-offs
Handling Method:	Not reported
Specific Gravity:	100
Year:	82

Document ID:	NYO1168362
Manifest Status:	TSDF copy

ORBAN (Continued) **1000150022**

Trans1 State ID:	Not reported
Trans2 State ID:	Not reported
Generator Ship Date:	820202
Trans1 Recv Date:	Not reported
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	820128
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported
Generator EPA ID:	NYD096300561
Trans1 EPA ID:	Not reported
Trans2 EPA ID:	Not reported
TSDF ID:	Not reported
Waste Code:	Not reported
Quantity:	Not reported
Units:	Not reported
Number of Containers:	Not reported
Container Type:	Not reported
Handling Method:	Not reported
Specific Gravity:	Not reported
Year:	82

Document ID:	NYO1168371
Manifest Status:	Completed copy
Trans1 State ID:	9A065
Trans2 State ID:	Not reported
Generator Ship Date:	820210
Trans1 Recv Date:	820210
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	820211
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported
Generator EPA ID:	NYD096300561
Trans1 EPA ID:	NYD080340094
Trans2 EPA ID:	Not reported
TSDF ID:	NYD080336241
Waste Code:	K063 - DELETE 11/12/80
Quantity:	00015
Units:	G - Gallons (liquids only)* (8.3 pounds)
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	Not reported
Specific Gravity:	100
Year:	82

Document ID:	NYO1168407
Manifest Status:	Completed copy
Trans1 State ID:	9A06 5
Trans2 State ID:	Not reported
Generator Ship Date:	820811
Trans1 Recv Date:	820811
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	820811
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported
Generator EPA ID:	NYD096300561

ORBAN (Continued) **1000150022**

Trans1 EPA ID:	NYD080340094
Trans2 EPA ID:	Not reported
TSDF ID:	NYD080336241
Waste Code:	K063 - DELETE 11/12/80
Quantity:	00015
Units:	Y - Cubic yards* (.85 tons)
Number of Containers:	001
Container Type:	CM - Metal boxes, cases, roll-offs
Handling Method:	L Landfill.
Specific Gravity:	100
Year:	82

Document ID:	NYO1168416
Manifest Status:	Completed after the designated time period for a TSDF to get a copy to the DEC
Trans1 State ID:	9A-065
Trans2 State ID:	Not reported
Generator Ship Date:	820610
Trans1 Recv Date:	820610
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	820611
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported
Generator EPA ID:	NYD096300561
Trans1 EPA ID:	NYD080340094
Trans2 EPA ID:	Not reported
TSDF ID:	NYD080336241
Waste Code:	K063 - DELETE 11/12/80
Quantity:	00015
Units:	Y - Cubic yards* (.85 tons)
Number of Containers:	001
Container Type:	CM - Metal boxes, cases, roll-offs
Handling Method:	Not reported
Specific Gravity:	100
Year:	82

Document ID:	NYO1168425
Manifest Status:	Completed copy
Trans1 State ID:	9A065
Trans2 State ID:	Not reported
Generator Ship Date:	820219
Trans1 Recv Date:	820219
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	820219
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported
Generator EPA ID:	NYD096300561
Trans1 EPA ID:	NYD080340094
Trans2 EPA ID:	Not reported
TSDF ID:	NYD080336241
Waste Code:	K063 - DELETE 11/12/80
Quantity:	00015
Units:	Y - Cubic yards* (.85 tons)
Number of Containers:	001
Container Type:	DT - Dump trucks
Handling Method:	Not reported

ORBAN (Continued) **1000150022**

Specific Gravity:	100
Year:	82
Document ID:	NYO1168434
Manifest Status:	Completed copy
Trans1 State ID:	9A065
Trans2 State ID:	Not reported
Generator Ship Date:	820727
Trans1 Recv Date:	820727
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	820727
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported
Generator EPA ID:	NYD096300561
Trans1 EPA ID:	NYD080340094
Trans2 EPA ID:	Not reported
TSDF ID:	NYD080336241
Waste Code:	K063 - DELETE 11/12/80
Quantity:	00015
Units:	Y - Cubic yards* (.85 tons)
Number of Containers:	001
Container Type:	CM - Metal boxes, cases, roll-offs
Handling Method:	L Landfill.
Specific Gravity:	100
Year:	82
Document ID:	NYO1168443
Manifest Status:	TSDF copy
Trans1 State ID:	Not reported
Trans2 State ID:	Not reported
Generator Ship Date:	820311
Trans1 Recv Date:	Not reported
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	820303
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported
Generator EPA ID:	NYD096300561
Trans1 EPA ID:	Not reported
Trans2 EPA ID:	Not reported
TSDF ID:	Not reported
Waste Code:	Not reported
Quantity:	Not reported
Units:	Not reported
Number of Containers:	Not reported
Container Type:	Not reported
Handling Method:	Not reported
Specific Gravity:	Not reported
Year:	82
Document ID:	NYO1168452
Manifest Status:	Completed copy
Trans1 State ID:	9A 065
Trans2 State ID:	Not reported
Generator Ship Date:	820223

ORBAN (Continued) **1000150022**

Trans1 Recv Date:	820223
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	820223
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported
Generator EPA ID:	NYD096300561
Trans1 EPA ID:	NYD080340094
Trans2 EPA ID:	Not reported
TSDF ID:	NYD080336241
Waste Code:	K063 - DELETE 11/12/80
Quantity:	00008
Units:	T - Tons
Number of Containers:	001
Container Type:	CM - Metal boxes, cases, roll-offs
Handling Method:	Not reported
Specific Gravity:	100
Year:	82

Document ID:	NYO1168461
Manifest Status:	Completed copy
Trans1 State ID:	9A065
Trans2 State ID:	Not reported
Generator Ship Date:	820225
Trans1 Recv Date:	820225
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	820225
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported
Generator EPA ID:	NYD096300561
Trans1 EPA ID:	NYD080340094
Trans2 EPA ID:	Not reported
TSDF ID:	NYD080336241
Waste Code:	K063 - DELETE 11/12/80
Quantity:	00009
Units:	T - Tons
Number of Containers:	001
Container Type:	CM - Metal boxes, cases, roll-offs
Handling Method:	Not reported
Specific Gravity:	100
Year:	82

Document ID:	NYO1168479
Manifest Status:	Completed after the designated time period for a TSDF to get a copy to the DEC
Trans1 State ID:	9A065
Trans2 State ID:	Not reported
Generator Ship Date:	820719
Trans1 Recv Date:	820719
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	820719
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported
Generator EPA ID:	NYD096300561
Trans1 EPA ID:	NYD080340094
Trans2 EPA ID:	Not reported
TSDF ID:	NYD080336241

ORBAN (Continued) **1000150022**

Waste Code:	K062 - SP PICKLE LIQUOR FM STEEL OPTS
Quantity:	00015
Units:	Y - Cubic yards* (.85 tons)
Number of Containers:	001
Container Type:	CM - Metal boxes, cases, roll-offs
Handling Method:	L Landfill.
Specific Gravity:	100
Year:	82

Document ID:	NYO1168344
Manifest Status:	Completed copy
Trans1 State ID:	9A064
Trans2 State ID:	Not reported
Generator Ship Date:	820120
Trans1 Recv Date:	820120
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	820120
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported
Generator EPA ID:	NYD096300561
Trans1 EPA ID:	NYD080340094
Trans2 EPA ID:	Not reported
TSDF ID:	NYD080336241
Waste Code:	K062 - SP PICKLE LIQUOR FM STEEL OPTS
Quantity:	00015
Units:	G - Gallons (liquids only)* (8.3 pounds)
Number of Containers:	001
Container Type:	DT - Dump trucks
Handling Method:	Not reported
Specific Gravity:	100
Year:	82

Document ID:	NYO1758249
Manifest Status:	Completed copy
Trans1 State ID:	9A065
Trans2 State ID:	Not reported
Generator Ship Date:	820907
Trans1 Recv Date:	820907
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	820907
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported
Generator EPA ID:	NYD096300561
Trans1 EPA ID:	NYD080340094
Trans2 EPA ID:	Not reported
TSDF ID:	NYD080336241
Waste Code:	K063 - DELETE 11/12/80
Quantity:	00015
Units:	Y - Cubic yards* (.85 tons)
Number of Containers:	001
Container Type:	DT - Dump trucks
Handling Method:	L Landfill.
Specific Gravity:	100
Year:	82

ORBAN (Continued) **1000150022**

Document ID:	NYO2354364
Manifest Status:	Completed copy
Trans1 State ID:	9A065
Trans2 State ID:	Not reported
Generator Ship Date:	820909
Trans1 Recv Date:	820909
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	820910
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported
Generator EPA ID:	NYD096300561
Trans1 EPA ID:	NYD080336241
Trans2 EPA ID:	Not reported
TSDF ID:	NYD080336241
Waste Code:	K063 - DELETE 11/12/80
Quantity:	00015
Units:	Y - Cubic yards* (.85 tons)
Number of Containers:	001
Container Type:	DT - Dump trucks
Handling Method:	L Landfill.
Specific Gravity:	100
Year:	82

Document ID:	NYO2354373
Manifest Status:	Completed copy
Trans1 State ID:	9A065
Trans2 State ID:	9A065
Generator Ship Date:	820827
Trans1 Recv Date:	820827
Trans2 Recv Date:	820830
TSD Site Recv Date:	820830
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported
Generator EPA ID:	NYD096300561
Trans1 EPA ID:	NYD080340094
Trans2 EPA ID:	Not reported
TSDF ID:	NYD080336241
Waste Code:	K063 - DELETE 11/12/80
Quantity:	00015
Units:	Y - Cubic yards* (.85 tons)
Number of Containers:	001
Container Type:	CM - Metal boxes, cases, roll-offs
Handling Method:	L Landfill.
Specific Gravity:	100
Year:	82

Document ID:	NYO2354382
Manifest Status:	Completed after the designated time period for a TSDF to get a copy to the DEC
Trans1 State ID:	9A065
Trans2 State ID:	Not reported
Generator Ship Date:	820820
Trans1 Recv Date:	820820
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	820820
Part A Recv Date:	Not reported

ORBAN (Continued) **1000150022**

Part B Recv Date:	Not reported
Generator EPA ID:	NYD096300561
Trans1 EPA ID:	NYD080340094
Trans2 EPA ID:	Not reported
TSDF ID:	NYD080336241
Waste Code:	K063 - DELETE 11/12/80
Quantity:	00013
Units:	Y - Cubic yards* (.85 tons)
Number of Containers:	001
Container Type:	CM - Metal boxes, cases, roll-offs
Handling Method:	L Landfill.
Specific Gravity:	100
Year:	82

Document ID:	NYO2354391
Manifest Status:	Completed copy
Trans1 State ID:	9A065
Trans2 State ID:	Not reported
Generator Ship Date:	820809
Trans1 Recv Date:	820809
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	820806
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported
Generator EPA ID:	NYD096300561
Trans1 EPA ID:	NYD080340094
Trans2 EPA ID:	Not reported
TSDF ID:	NYD080336241
Waste Code:	K063 - DELETE 11/12/80
Quantity:	00005
Units:	Y - Cubic yards* (.85 tons)
Number of Containers:	001
Container Type:	CM - Metal boxes, cases, roll-offs
Handling Method:	L Landfill.
Specific Gravity:	100
Year:	82

Document ID:	NYO2354418
Manifest Status:	Completed copy
Trans1 State ID:	9A065
Trans2 State ID:	Not reported
Generator Ship Date:	820928
Trans1 Recv Date:	820928
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	820929
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported
Generator EPA ID:	NYD096300561
Trans1 EPA ID:	NYD080340094
Trans2 EPA ID:	Not reported
TSDF ID:	NYD080336241
Waste Code:	K063 - DELETE 11/12/80
Quantity:	00015
Units:	Y - Cubic yards* (.85 tons)
Number of Containers:	001

ORBAN (Continued) **1000150022**

Container Type:	CM - Metal boxes, cases, roll-offs
Handling Method:	L Landfill.
Specific Gravity:	100
Year:	82

Document ID:	NYO2354436
Manifest Status:	Completed copy
Trans1 State ID:	9A065
Trans2 State ID:	Not reported
Generator Ship Date:	820826
Trans1 Recv Date:	820826
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	820826
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported
Generator EPA ID:	NYD096300561
Trans1 EPA ID:	NYD080340094
Trans2 EPA ID:	Not reported
TSDF ID:	NYD080336241
Waste Code:	K063 - DELETE 11/12/80
Quantity:	00015
Units:	Y - Cubic yards* (.85 tons)
Number of Containers:	001
Container Type:	CM - Metal boxes, cases, roll-offs
Handling Method:	L Landfill.
Specific Gravity:	100
Year:	82

Document ID:	NYO2354445
Manifest Status:	Completed copy
Trans1 State ID:	9A065
Trans2 State ID:	Not reported
Generator Ship Date:	820915
Trans1 Recv Date:	820915
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	820915
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported
Generator EPA ID:	NYD096300561
Trans1 EPA ID:	NYD080340094
Trans2 EPA ID:	Not reported
TSDF ID:	NYD080336241
Waste Code:	K063 - DELETE 11/12/80
Quantity:	00015
Units:	Y - Cubic yards* (.85 tons)
Number of Containers:	001
Container Type:	DT - Dump trucks
Handling Method:	L Landfill.
Specific Gravity:	100
Year:	82

Click this hyperlink while viewing on your computer to access
6 additional NY_MANIFEST: record(s) in the EDR Site Report.

K55 **MADISON WIRE COMPANY (ORBAN INDUSTRIES)** **SHWS** **S108061185**
SSE **324 INDIAN CHURCH ROAD** **N/A**
1/2-1 **WEST SENECA, NY 14224**
0.612 mi.
3233 ft: **Site 2 of 2 in cluster K**

Relative:
Higher

Actual:
594 ft.

SHWS:

Program:	HW
Site Code:	58118
Classification:	C
Region:	9
Acres:	7.500
HW Code:	915036
Record Add:	11/18/1999 12:00:00 PM
Record Upd:	5/8/2008 8:55:00 AM
Updated By:	MLDOSTER

Site Description: The Madison Wire Site is a 7.5 acre site surrounded by a residential area where metal wire manufacturing operations took place beginning in the 1930's. The facility had a history of environmental problems ranging from acid discharges in 1956 to uncontrolled releases of pickle liquor wastewaters (hazardous waste). The site was purchased by Orban Industries in 1978 and continued operations until 1982. As a result of Orban abandoning the facility, the NYSDEC undertook two environmental investigations on the site in 1983 and 1987. In 1987 USEPA removed drummed wastes and cleaned all vats, tanks etc. at the site. A DEC Remedial Investigation/Feasibility Study (RI/FS) was started in 1988 and a Record of Decision (ROD) was issued in 1990. The ROD required the removal of surface soils and debris piles which contained lead and polynuclear aromatic hydrocarbon contamination. All soils and wastes were removed to a permitted off-site landfill. In 1992, the NYSDEC's contractor removed all vegetation and debris piles as well as wastes from the western area. All remedial activities were completed by December 1993. The remedy also included the closure of an abandoned and leaking natural gas well that was discovered at the site. A monitoring program was developed for the site to assess the groundwater at the site. After three years of monitoring, the groundwater was determined to be adequately addressed by the remedial actions and no further action was required at the site. The property has subsequently been redeveloped as a Town Park.

Env Problem: Groundwater contains concentrations of Iron, Manganese and Magnesium at levels higher than groundwater standards, but typical for this area. Trace levels of organic compounds were detected in a small number of samples at or near the groundwater quality standard.

Health Problem: The site has been remediated and is now a public park. The potential for exposures has been eliminated.

Dump:	True
Structure:	False
Lagoon:	False
Landfill:	False
Pond:	False
Disp Start:	1930s
Disp Term:	Sept. 1982
Lat/Long:	42:51:18:0 / 78:47:44:0
Dell:	False
Record Add:	11/18/1999 12:00:00 PM
Record Upd:	11/18/1999 12:00:00 PM
Updated By:	INITIAL
Own Op:	Disp. Owner
Sub Type:	NNN

MADISON WIRE COMPANY (ORBAN INDUSTRIES) (Continued) **S108061185**

Owner Name:	Not reported
Owner Company:	MADISON WIRE COMP., ORBAN INDUSTRIES
Owner Address:	Not reported
Owner Addr2:	Not reported
Owner City,St,Zip:	ZZ
Owner Country:	United States of America
Own Op:	Owner
Sub Type:	E
Owner Name:	Not reported
Owner Company:	MADISON WIRE COMP., ORBAN INDUSTRIES
Owner Address:	288 CLUB DRIVE
Owner Addr2:	Not reported
Owner City,St,Zip:	SAN CARLOS, CA 94070
Owner Country:	United States of America
Own Op:	Owner
Sub Type:	E
Owner Name:	Not reported
Owner Company:	Orban Industries
Owner Address:	288 CLUB DRIVE
Owner Addr2:	Not reported
Owner City,St,Zip:	SAN CARLOS, CA 94070
Owner Country:	United States of America
Own Op:	On-Site Operator
Sub Type:	E
Owner Name:	Not reported
Owner Company:	Madison Wire Company, Orban Indust.
Owner Address:	324 INDIAN CHURCH ROAD
Owner Addr2:	Not reported
Owner City,St,Zip:	WEST SENECA, NY 14224
Owner Country:	United States of America
HW Code:	915036
Waste Type:	HEAVY METALS, CYANIDE, PAHS
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	915036
Waste Type:	PICKLE LIQUOR (K062 WASTE)
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
Crossref ID:	NYD096300561
Cross Ref Type Code:	06
Cross Ref Type:	RCRA ID
Record Added Date:	11/18/1999 12:00:00 PM
Record Updated:	2/24/2005 3:54:00 PM
Updated By:	INITIAL
Crossref ID:	NYD000512848
Cross Ref Type Code:	05
Cross Ref Type:	EPA Site ID
Record Added Date:	11/18/1999 12:00:00 PM
Record Updated:	5/10/2001 4:31:00 PM
Updated By:	REGTRANS

Count: 39 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
BUFFALO	S102175597	BRENTON - BLUE LIQUID	RT 198		NY Spills, NY Hist Spills
BUFFALO	S102178515	TAR ON ROAD	RT 198		NY Spills, NY Hist Spills
BUFFALO	S100493920	UNKNOWN TRUCK	RT 198 E		LTANKS, HIST LTANKS
BUFFALO	S108061187	BRISTOL STREET	204TH & 208 BRISTOL ST	14206	SHWS
BUFFALO	S105965422	HANNA FURNACE (SUBPARCEL 3)(AKA UN	2ND & 4 FUHRMANN BLVD	14220	ERP
BUFFALO	S102175440	NSYDOT PUMPHOUSE RT. 33	RT 33		NY Spills, NY Hist Spills
BUFFALO	S102177197	MOTOR OIL ON KENSINGTON	RT 33		NY Spills, NY Hist Spills
BUFFALO	S102178777	OIL ON ROUTE 33 WESTBOUND	RT 33 W		NY Spills, NY Hist Spills
BUFFALO	S109581915	OIL ON ROAD	RT 33		NY Spills
BUFFALO	S102178402	FICEL TRUCKING	RT 5		NY Spills, NY Hist Spills
BUFFALO	S102174058	CARGILL DRUMS	RT 5		NY Spills, NY Hist Spills
BUFFALO	S106011350	FATHER BAKER BRIDGE	RT 5 & TIFFT ST		NY Spills
BUFFALO	S106969491	UNDER SKYWAY	RT 5		NY Spills
BUFFALO	S106018618	WWTP SLUDGE	RT 5		NY Spills
BUFFALO	S109582831	BIG LOTS PLAZA	652ND SOUTH OGDEN & DINGENS		NY Spills
BUFFALO	S102175659	SCAJAQUADA EXPRY. OIL	RT 98		NY Spills, NY Hist Spills
BUFFALO	S106016599	STEEL FIELDS	ABBY ST & RT 5		NY Spills
BUFFALO	S107788273	ON BROADWAY (ROADWAY)	BETWEEN BAILEY & OGDEN		NY Spills
BUFFALO	S108957415	WHITE LIQUID	BROADWAY JUST PAST N OGDEN BEF		NY Spills
BUFFALO	S105842493	BROADWAY GARAGE	BROADWAY RD		SWF/LF
BUFFALO	S103562029	BUFFALO STATE COLLEGE	BUFFALO STATE COLL		NY Spills, NY Hist Spills
BUFFALO	S102403018	CITY OF BUFFALO	S CABLE		NY Spills, NY Hist Spills
BUFFALO	S103036175	FIRE ENGINE #13 FIRE DEPT	COURT & STATE STS		NY Spills, NY Hist Spills
BUFFALO	S108765178	WENDYS	DINGENS & OGDEN		NY Spills
BUFFALO	S102176954	BUFFALO RIVER	S OGDEN ST		NY Spills, NY Hist Spills
BUFFALO	S102177837	EAST SIDE TRANSFER STN.	S OGDEN ST		NY Spills, NY Hist Spills
BUFFALO	S102176974	ZAPPIA BERM	OGDEN WEISS & I190		NY Spills, NY Hist Spills
BUFFALO	S102245158	CID REFUSE SERVICE	OGDEN ST		NY Spills, NY Hist Spills
BUFFALO	S102179468	CID	793 N OGDEN		NY Spills, NY Hist Spills
BUFFALO	S105235554	BUFFALO RIVER	OGDEN ST		NY Spills, NY Hist Spills
BUFFALO	S107407917	BUFFALO TRANSFER STATION	OGDEN ST		NY Spills
BUFFALO	1000554178	NYS THRUWAY AUTH	OGDEN SAINT OVER THWY	14206	RCRA-NonGen, FINDS, MANIFEST
CHEEKTOWAGA	1012186333	NYSDOT BIN 1042640	RTE 240 OVER NOR SO/D&H/	14206	RCRA-LQG
CHEEKTOWAGA	1000705449	NYSDOT BIN 1022860	RAMP H & C RTE 33	14224	RCRA-NonGen, FINDS
CHEEKTOWAGA	S105842002	CTS CRUSHING & RECYCLING	THRUWAY MALL	14227	SWF/LF
W SENECA	1001482740	NYS DOT	RT 219 & CONRAIL BRG	14224	RCRA-NonGen, FINDS, MANIFEST
W SENECA	1004760987	NYSDOT	RT 400 & HARLEM RD	14220	RCRA-NonGen, FINDS, MANIFEST
WEST SENECA	1001233133	NYSDOT BIN 1047690	BIRCHWOOD AVE BRG OVER RTE 400	14224	RCRA-NonGen, FINDS, MANIFEST
WEST SENECA	1001028391	NYSDOT D256524 SITE 4	SW QUADRANT RTE 78	14224	RCRA-NonGen, FINDS

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: 03/31/2011
Date Data Arrived at EDR: 04/13/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 62

Source: EPA
Telephone: N/A
Last EDR Contact: 07/12/2011
Next Scheduled EDR Contact: 10/24/2011
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 3
Telephone 215-814-5418

EPA Region 4
Telephone 404-562-8033

EPA Region 5
Telephone 312-886-6686

EPA Region 10
Telephone 206-553-8665

EPA Region 6
Telephone: 214-655-6659

EPA Region 7
Telephone: 913-551-7247

EPA Region 8
Telephone: 303-312-6774

EPA Region 9
Telephone: 415-947-4246

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: 03/31/2011
Date Data Arrived at EDR: 04/13/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 62

Source: EPA
Telephone: N/A
Last EDR Contact: 07/12/2011
Next Scheduled EDR Contact: 10/24/2011
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.

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: 05/16/2011
Next Scheduled EDR Contact: 08/29/2011
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 03/31/2011
Date Data Arrived at EDR: 04/13/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 62

Source: EPA
Telephone: N/A
Last EDR Contact: 07/12/2011
Next Scheduled EDR Contact: 10/24/2011
Data Release Frequency: Quarterly

Federal CERCLIS list

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System
CERCLIS 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). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 02/25/2011
Date Data Arrived at EDR: 03/01/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 62

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 06/14/2011
Next Scheduled EDR Contact: 09/12/2011
Data Release Frequency: Quarterly

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 EPAa??s Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 12/10/2010
Date Data Arrived at EDR: 01/11/2011
Date Made Active in Reports: 02/16/2011
Number of Days to Update: 36

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 07/15/2011
Next Scheduled EDR Contact: 10/24/2011
Data Release Frequency: Varies

Federal CERCLIS NFRAP site List

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned
Archived sites are sites that have been removed and archived from the inventory of CERCLIS 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 this 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. This 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 a potential NPL site.

Date of Government Version: 02/25/2011
Date Data Arrived at EDR: 03/01/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 62

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 06/14/2011
Next Scheduled EDR Contact: 09/12/2011
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: 03/09/2011
Date Data Arrived at EDR: 03/15/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 91

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 05/16/2011
Next Scheduled EDR Contact: 08/29/2011
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: 03/11/2011
Date Data Arrived at EDR: 04/05/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: (212) 637-3660
Last EDR Contact: 07/07/2011
Next Scheduled EDR Contact: 10/17/2011
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: 03/11/2011
Date Data Arrived at EDR: 04/05/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: (212) 637-3660
Last EDR Contact: 07/07/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Quarterly

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: 03/11/2011
Date Data Arrived at EDR: 04/05/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: (212) 637-3660
Last EDR Contact: 07/07/2011
Next Scheduled EDR Contact: 10/17/2011
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: 03/11/2011
Date Data Arrived at EDR: 04/05/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: (212) 637-3660
Last EDR Contact: 07/07/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal institutional controls / engineering controls registries

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: 03/16/2011
Date Data Arrived at EDR: 03/25/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 81

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 06/13/2011
Next Scheduled EDR Contact: 09/26/2011
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: 03/16/2011
Date Data Arrived at EDR: 03/25/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 81

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 06/13/2011
Next Scheduled EDR Contact: 09/26/2011
Data Release Frequency: Varies

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: 04/05/2011
Date Data Arrived at EDR: 04/05/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 70

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 07/05/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Annually

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: 05/24/2011
Date Data Arrived at EDR: 05/25/2011
Date Made Active in Reports: 07/05/2011
Number of Days to Update: 41

Source: Department of Environmental Conservation
Telephone: 518-402-9622
Last EDR Contact: 07/13/2011
Next Scheduled EDR Contact: 09/05/2011
Data Release Frequency: Annually

VAPOR REOPENED: Vapor Intrustion 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: 09/14/2010
Date Data Arrived at EDR: 11/24/2010
Date Made Active in Reports: 12/17/2010
Number of Days to Update: 23

Source: Department of Environmenal Conservation
Telephone: 518-402-9814
Last EDR Contact: 05/26/2011
Next Scheduled EDR Contact: 09/05/2011
Data Release Frequency: Varies

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

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 04/14/2011
Date Data Arrived at EDR: 06/06/2011
Date Made Active in Reports: 06/24/2011
Number of Days to Update: 18

Source: Department of Environmental Conservation
Telephone: 518-457-2051
Last EDR Contact: 07/11/2011
Next Scheduled EDR Contact: 10/24/2011
Data Release Frequency: Semi-Annually

State and tribal leaking storage tank lists

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: 05/24/2011
Date Data Arrived at EDR: 05/25/2011
Date Made Active in Reports: 07/06/2011
Number of Days to Update: 42

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 07/05/2011
Next Scheduled EDR Contact: 09/05/2011
Data Release Frequency: Varies

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
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

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land

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

Date of Government Version: 03/03/2011
Date Data Arrived at EDR: 03/18/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 45

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 05/02/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Semi-Annually

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: 01/31/2011
Date Data Arrived at EDR: 02/01/2011
Date Made Active in Reports: 03/21/2011
Number of Days to Update: 48

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 05/02/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Quarterly

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

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

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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
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: 10/24/2005
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
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: Varies

AST: Petroleum Bulk Storage
Registered Aboveground Storage Tanks.

Date of Government Version: 04/05/2011
Date Data Arrived at EDR: 04/05/2011
Date Made Active in Reports: 04/25/2011
Number of Days to Update: 20

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 07/05/2011
Next Scheduled EDR Contact: 10/17/2011
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

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: 04/05/2011
Date Data Arrived at EDR: 04/05/2011
Date Made Active in Reports: 04/20/2011
Number of Days to Update: 15

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 07/05/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Quarterly

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: 04/05/2011
Date Data Arrived at EDR: 04/05/2011
Date Made Active in Reports: 04/20/2011
Number of Days to Update: 15

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 07/05/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Quarterly

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: 05/10/2011
Date Data Arrived at EDR: 05/11/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 34

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 05/02/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Semi-Annually

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: 01/01/2011
Date Data Arrived at EDR: 02/23/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 68

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 05/02/2011
Next Scheduled EDR Contact: 08/15/2011
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: 03/03/2011
Date Data Arrived at EDR: 03/18/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 45

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 05/02/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Semi-Annually

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: 05/18/2011
Date Data Arrived at EDR: 05/26/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 19

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 05/02/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Quarterly

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: 05/16/2011
Date Data Arrived at EDR: 05/17/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 28

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 05/02/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Quarterly

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: 05/17/2011
Date Data Arrived at EDR: 05/19/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 26

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 05/02/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Quarterly

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: 03/07/2011
Date Data Arrived at EDR: 05/20/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 25

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 05/03/2011
Next Scheduled EDR Contact: 08/15/2011
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: 05/10/2011
Date Data Arrived at EDR: 05/11/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 34

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 05/02/2011
Next Scheduled EDR Contact: 08/15/2011
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: 11/04/2009
Date Data Arrived at EDR: 05/04/2010
Date Made Active in Reports: 07/07/2010
Number of Days to Update: 64

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 05/04/2010
Next Scheduled EDR Contact: 05/16/2011
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: 05/16/2011
Date Data Arrived at EDR: 05/17/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 28

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 05/02/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Quarterly

State and tribal registered storage tank lists

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: 04/05/2011
Date Data Arrived at EDR: 04/15/2011
Date Made Active in Reports: 04/25/2011
Number of Days to Update: 10

Source: Department of Environmental Conservation
Telephone: 518-402-9543
Last EDR Contact: 07/05/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Quarterly

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: 04/05/2011
Date Data Arrived at EDR: 04/05/2011
Date Made Active in Reports: 04/25/2011
Number of Days to Update: 20

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 07/05/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

Date of Government Version: 04/01/2011
Date Data Arrived at EDR: 06/01/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 13

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 02/03/2011
Next Scheduled EDR Contact: 05/16/2011
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: 05/17/2011
Date Data Arrived at EDR: 05/19/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 26

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 05/02/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Quarterly

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: 03/07/2011
Date Data Arrived at EDR: 05/04/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 41

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 05/03/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Varies

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 55

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Varies

State and tribal institutional control / engineering control registries

ENG CONTROLS: Registry of Engineering Controls

Environmental Remediation sites that have engineering controls in place.

Date of Government Version: 05/24/2011
Date Data Arrived at EDR: 05/25/2011
Date Made Active in Reports: 07/05/2011
Number of Days to Update: 41

Source: Department of Environmental Conservation
Telephone: 518-402-9553
Last EDR Contact: 07/13/2011
Next Scheduled EDR Contact: 09/05/2011
Data Release Frequency: Quarterly

INST CONTROL: Registry of Institutional Controls

Environmental Remediation sites that have institutional controls in place.

Date of Government Version: 05/24/2011
Date Data Arrived at EDR: 05/25/2011
Date Made Active in Reports: 07/05/2011
Number of Days to Update: 41

Source: Department of Environmental Conservation
Telephone: 518-402-9553
Last EDR Contact: 07/13/2011
Next Scheduled EDR Contact: 09/05/2011
Data Release Frequency: Quarterly

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
Date Data Arrived at EDR: 12/23/2010
Date Made Active in Reports: 02/11/2011
Number of Days to Update: 50

Source: NYC Department of City Planning
Telephone: 212-720-3401
Last EDR Contact: 06/29/2011
Next Scheduled EDR Contact: 10/10/2011
Data Release Frequency: No Update Planned

State and tribal voluntary cleanup sites

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: 05/24/2011
Date Data Arrived at EDR: 05/25/2011
Date Made Active in Reports: 07/05/2011
Number of Days to Update: 41

Source: Department of Environmental Conservation
Telephone: 518-402-9711
Last EDR Contact: 07/13/2011
Next Scheduled EDR Contact: 09/05/2011
Data Release Frequency: Semi-Annually

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 02/25/2011
Date Data Arrived at EDR: 04/05/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 70

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 07/05/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
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

State and tribal Brownfields sites

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: 05/24/2011
Date Data Arrived at EDR: 05/25/2011
Date Made Active in Reports: 07/05/2011
Number of Days to Update: 41

Source: Department of Environmental Conservation
Telephone: 518-402-9622
Last EDR Contact: 07/13/2011
Next Scheduled EDR Contact: 09/05/2011
Data Release Frequency: Quarterly

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: 05/24/2011
Date Data Arrived at EDR: 05/25/2011
Date Made Active in Reports: 07/05/2011
Number of Days to Update: 41

Source: Department of Environmental Conservation
Telephone: 518-402-9764
Last EDR Contact: 07/13/2011
Next Scheduled EDR Contact: 09/05/2011
Data Release Frequency: Semi-Annually

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
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 05/09/2011
Next Scheduled EDR Contact: 08/22/2011
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

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: 02/02/2011
Date Data Arrived at EDR: 03/17/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 46

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 06/07/2011
Next Scheduled EDR Contact: 09/19/2011
Data Release Frequency: Quarterly

DEL SHWS: Delisted Registry Sites
A database listing of sites delisted from the Registry of Inactive Hazardous Waste Disposal Sites.

Date of Government Version: 05/24/2011
Date Data Arrived at EDR: 05/25/2011
Date Made Active in Reports: 07/05/2011
Number of Days to Update: 41

Source: Department of Environmental Conservation
Telephone: 518-402-9622
Last EDR Contact: 07/13/2011
Next Scheduled EDR Contact: 09/05/2011
Data Release Frequency: Annually

US HIST CDL: National Clandestine Laboratory Register
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: 09/01/2007
Date Data Arrived at EDR: 11/19/2008
Date Made Active in Reports: 03/30/2009
Number of Days to Update: 131

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

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

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become Brownfields Cleanup Revolving Loan Fund (BCRLF) cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: 03/29/2011
Date Data Arrived at EDR: 03/29/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 77

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 06/27/2011
Next Scheduled EDR Contact: 10/10/2011
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

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
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
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.

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: 06/27/2011
Next Scheduled EDR Contact: 10/10/2011
Data Release Frequency: No Update Planned

SWRCY: Registered Recycling Facility List

A listing of recycling facilities.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/06/2011
Date Made Active in Reports: 06/24/2011
Number of Days to Update: 18

Source: Department of Environmental Conservation
Telephone: 518-402-8705
Last EDR Contact: 07/11/2011
Next Scheduled EDR Contact: 10/24/2011
Data Release Frequency: Semi-Annually

SWTIRE: Registered Waste Tire Storage & Facility List

A listing of facilities registered to accept waste tires.

Date of Government Version: 08/01/2006
Date Data Arrived at EDR: 11/15/2006
Date Made Active in Reports: 11/30/2006
Number of Days to Update: 15

Source: Department of Environmental Conservation
Telephone: 518-402-8694
Last EDR Contact: 04/29/2011
Next Scheduled EDR Contact: 08/08/2011
Data Release Frequency: Annually

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 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: 02/01/2011
Date Data Arrived at EDR: 02/04/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 87

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 05/02/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Varies

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: 12/09/2005
Date Data Arrived at EDR: 12/11/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 31

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 07/11/2011
Next Scheduled EDR Contact: 09/05/2011
Data Release Frequency: Varies

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: 12/31/2010
Date Data Arrived at EDR: 01/05/2011
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 51

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 07/05/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Annually

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: 05/24/2011
Date Data Arrived at EDR: 05/25/2011
Date Made Active in Reports: 07/06/2011
Number of Days to Update: 42

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 07/05/2011
Next Scheduled EDR Contact: 09/05/2011
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.

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

Other Ascertainable Records

RCRA-NonGen: RCRA - Non 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). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 03/11/2011
Date Data Arrived at EDR: 04/05/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: (212) 637-3660
Last EDR Contact: 07/07/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 01/12/2011
Date Data Arrived at EDR: 02/11/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 80

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 05/11/2011
Next Scheduled EDR Contact: 08/22/2011
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: 04/21/2011
Next Scheduled EDR Contact: 08/01/2011
Data Release Frequency: Semi-Annually

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: 12/31/2009
Date Data Arrived at EDR: 08/12/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 112

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 06/14/2011
Next Scheduled EDR Contact: 09/26/2011
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: 12/31/2010
Date Data Arrived at EDR: 04/05/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 70

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 02/25/2011
Date Data Arrived at EDR: 03/16/2011
Date Made Active in Reports: 03/21/2011
Number of Days to Update: 5

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 06/15/2011
Next Scheduled EDR Contact: 09/26/2011
Data Release Frequency: Annually

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: 09/14/2010
Date Data Arrived at EDR: 10/21/2010
Date Made Active in Reports: 01/28/2011
Number of Days to Update: 99

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 06/02/2011
Next Scheduled EDR Contact: 09/12/2011
Data Release Frequency: Varies

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: 02/08/2011
Date Data Arrived at EDR: 03/09/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 54

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 06/08/2011
Next Scheduled EDR Contact: 09/19/2011
Data Release Frequency: Semi-Annually

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: 12/31/2009
Date Data Arrived at EDR: 12/17/2010
Date Made Active in Reports: 03/21/2011
Number of Days to Update: 94

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 05/27/2011
Next Scheduled EDR Contact: 09/12/2011
Data Release Frequency: Annually

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: 12/31/2006
Date Data Arrived at EDR: 09/29/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 64

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 06/30/2011
Next Scheduled EDR Contact: 10/10/2011
Data Release Frequency: Every 4 Years

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: 05/27/2011
Next Scheduled EDR Contact: 09/12/2011
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: 05/27/2011
Next Scheduled EDR Contact: 09/12/2011
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

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
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 05/02/2011
Next Scheduled EDR Contact: 08/15/2011
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: 01/07/2011
Date Data Arrived at EDR: 01/21/2011
Date Made Active in Reports: 03/21/2011
Number of Days to Update: 59

Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 06/27/2011
Next Scheduled EDR Contact: 10/10/2011
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 11/01/2010
Date Data Arrived at EDR: 11/10/2010
Date Made Active in Reports: 02/16/2011
Number of Days to Update: 98

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 04/22/2011
Next Scheduled EDR Contact: 08/01/2011
Data Release Frequency: Annually

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: 03/18/2010
Date Data Arrived at EDR: 04/06/2010
Date Made Active in Reports: 05/27/2010
Number of Days to Update: 51

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 06/13/2011
Next Scheduled EDR Contact: 09/26/2011
Data Release Frequency: Quarterly

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.

Date of Government Version: 01/11/2011
Date Data Arrived at EDR: 01/13/2011
Date Made Active in Reports: 02/16/2011
Number of Days to Update: 34

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 07/12/2011
Next Scheduled EDR Contact: 10/24/2011
Data Release Frequency: Quarterly

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: 04/14/2010
Date Data Arrived at EDR: 04/16/2010
Date Made Active in Reports: 05/27/2010
Number of Days to Update: 41

Source: EPA
Telephone: (212) 637-3000
Last EDR Contact: 06/14/2011
Next Scheduled EDR Contact: 09/26/2011
Data Release Frequency: Quarterly

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
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

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: 12/31/2009
Date Data Arrived at EDR: 03/01/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 62

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 05/27/2011
Next Scheduled EDR Contact: 09/12/2011
Data Release Frequency: Biennially

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.

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

UIC: Underground Injection Control Wells

A listing of enhanced oil recovery underground injection wells.

Date of Government Version: 06/13/2011
Date Data Arrived at EDR: 06/15/2011
Date Made Active in Reports: 07/18/2011
Number of Days to Update: 33

Source: Department of Environmental Conservation
Telephone: 518-402-8056
Last EDR Contact: 06/15/2011
Next Scheduled EDR Contact: 09/26/2011
Data Release Frequency: Quarterly

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: 12/31/2010
Date Data Arrived at EDR: 05/12/2011
Date Made Active in Reports: 05/24/2011
Number of Days to Update: 12

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 05/12/2011
Next Scheduled EDR Contact: 08/22/2011
Data Release Frequency: Annually

DRYCLEANERS: Registered Drycleaners

A listing of all registered drycleaning facilities.

Date of Government Version: 06/28/2011
Date Data Arrived at EDR: 06/29/2011
Date Made Active in Reports: 07/05/2011
Number of Days to Update: 6

Source: Department of Environmental Conservation
Telephone: 518-402-8403
Last EDR Contact: 06/20/2011
Next Scheduled EDR Contact: 10/03/2011
Data Release Frequency: Varies

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: 04/18/2011
Date Data Arrived at EDR: 04/20/2011
Date Made Active in Reports: 05/24/2011
Number of Days to Update: 34

Source: Department of Environmental Conservation
Telephone: 518-402-8233
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

AIRS: Air Emissions Data
Point source emissions inventory data.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 11/02/2010
Date Made Active in Reports: 12/17/2010
Number of Days to Update: 45

Source: Department of Environmental Conservation
Telephone: 518-402-8452
Last EDR Contact: 05/02/2011
Next Scheduled EDR Contact: 08/15/2011
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: 10/13/2010
Date Data Arrived at EDR: 12/30/2010
Date Made Active in Reports: 02/04/2011
Number of Days to Update: 36

Source: New York City Department of City Planning
Telephone: 718-595-6658
Last EDR Contact: 06/30/2011
Next Scheduled EDR Contact: 10/10/2011
Data Release Frequency: Varies

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: 12/31/2005
Date Data Arrived at EDR: 12/08/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 34

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 04/21/2011
Next Scheduled EDR Contact: 08/01/2011
Data Release Frequency: Semi-Annually

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: 03/07/2011
Date Data Arrived at EDR: 03/09/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 06/06/2011
Next Scheduled EDR Contact: 08/08/2011
Data Release Frequency: Varies

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: 10/31/2008
Date Data Arrived at EDR: 11/25/2008
Date Made Active in Reports: 12/11/2008
Number of Days to Update: 16

Source: Department of Environmental Conservation
Telephone: 518-402-8712
Last EDR Contact: 07/11/2011
Next Scheduled EDR Contact: 10/24/2011
Data Release Frequency: Varies

COAL ASH DOE: Sleam-Electric Plan 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: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
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: 08/17/2010
Date Data Arrived at EDR: 01/03/2011
Date Made Active in Reports: 03/21/2011
Number of Days to Update: 77

Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 06/14/2011
Next Scheduled EDR Contact: 09/26/2011
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: 01/01/2008
Date Data Arrived at EDR: 02/18/2009
Date Made Active in Reports: 05/29/2009
Number of Days to Update: 100

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 05/05/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Varies

FINANCIAL ASSURANCE 1: Financial Assurance Information Listing
Financial assurance information.

Date of Government Version: 04/12/2011
Date Data Arrived at EDR: 06/06/2011
Date Made Active in Reports: 06/24/2011
Number of Days to Update: 18

Source: Department of Environmental Conservation
Telephone: 518-402-8660
Last EDR Contact: 07/11/2011
Next Scheduled EDR Contact: 10/24/2011
Data Release Frequency: Quarterly

COAL ASH: Coal Ash Disposal Site Listing
A listing of coal ash disposal site locations.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 04/15/2011
Date Made Active in Reports: 05/24/2011
Number of Days to Update: 39

Source: Department of Environmental Conservation
Telephone: 518-402-8660
Last EDR Contact: 07/11/2011
Next Scheduled EDR Contact: 10/24/2011
Data Release Frequency: Varies

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
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 04/21/2011
Next Scheduled EDR Contact: 08/01/2011
Data Release Frequency: N/A

EDR PROPRIETARY RECORDS

EDR Proprietary Records

Manufactured Gas Plants: 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.

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

COUNTY RECORDS

CORTLAND COUNTY:

Cortland County Storage Tank Listing
A listing of aboveground storage tank sites located in Cortland County.

Date of Government Version: 03/18/2011
Date Data Arrived at EDR: 03/18/2011
Date Made Active in Reports: 04/21/2011
Number of Days to Update: 34

Source: Cortland County Health Department
Telephone: 607-753-5035
Last EDR Contact: 05/23/2011
Next Scheduled EDR Contact: 08/22/2011
Data Release Frequency: Quarterly

Cortland County Storage Tank Listing
A listing of underground storage tank sites located in Cortland County.

Date of Government Version: 03/18/2011
Date Data Arrived at EDR: 03/18/2011
Date Made Active in Reports: 04/21/2011
Number of Days to Update: 34

Source: Cortland County Health Department
Telephone: 607-753-5035
Last EDR Contact: 05/23/2011
Next Scheduled EDR Contact: 08/22/2011
Data Release Frequency: Quarterly

NASSAU COUNTY:

Registered Tank Database
A listing of aboveground storage tank sites located in Nassau County.

Date of Government Version: 05/21/2003
Date Data Arrived at EDR: 05/27/2003
Date Made Active in Reports: 06/09/2003
Number of Days to Update: 13

Source: Nassau County Health Department
Telephone: 516-571-3314
Last EDR Contact: 07/11/2011
Next Scheduled EDR Contact: 10/24/2011
Data Release Frequency: No Update Planned

Storage Tank Database
A listing of aboveground storage tank sites located in Nassau County.

Date of Government Version: 02/15/2011
Date Data Arrived at EDR: 02/23/2011
Date Made Active in Reports: 03/29/2011
Number of Days to Update: 34

Source: Nassau County Office of the Fire Marshal
Telephone: 516-572-1000
Last EDR Contact: 05/09/2011
Next Scheduled EDR Contact: 08/22/2011
Data Release Frequency: Varies

Registered Tank Database
A listing of underground storage tank sites located in Nassau County.

Date of Government Version: 05/21/2003
Date Data Arrived at EDR: 05/27/2003
Date Made Active in Reports: 06/09/2003
Number of Days to Update: 13

Source: Nassau County Health Department
Telephone: 516-571-3314
Last EDR Contact: 07/11/2011
Next Scheduled EDR Contact: 10/24/2011
Data Release Frequency: No Update Planned

Storage Tank Database
A listing of underground storage tank sites located in Nassau County.

Date of Government Version: 02/15/2011
Date Data Arrived at EDR: 02/23/2011
Date Made Active in Reports: 03/29/2011
Number of Days to Update: 34

Source: Nassau County Office of the Fire Marshal
Telephone: 516-572-1000
Last EDR Contact: 05/09/2011
Next Scheduled EDR Contact: 08/22/2011
Data Release Frequency: Varies

ROCKLAND COUNTY:

Petroleum Bulk Storage Database
A listing of aboveground storage tank sites located in Rockland County.

Date of Government Version: 06/15/2011
Date Data Arrived at EDR: 06/17/2011
Date Made Active in Reports: 07/06/2011
Number of Days to Update: 19

Source: Rockland County Health Department
Telephone: 914-364-2605
Last EDR Contact: 06/13/2011
Next Scheduled EDR Contact: 09/26/2011
Data Release Frequency: Quarterly

Petroleum Bulk Storage Database
A listing of underground storage tank sites located in Rockland County.

Date of Government Version: 06/15/2011
Date Data Arrived at EDR: 06/17/2011
Date Made Active in Reports: 07/06/2011
Number of Days to Update: 19

Source: Rockland County Health Department
Telephone: 914-364-2605
Last EDR Contact: 06/13/2011
Next Scheduled EDR Contact: 09/26/2011
Data Release Frequency: Quarterly

SUFFOLK COUNTY:

Storage Tank Database
A listing of aboveground storage tank sites located in Suffolk County.

Date of Government Version: 09/13/2006
Date Data Arrived at EDR: 01/11/2007
Date Made Active in Reports: 02/07/2007
Number of Days to Update: 27

Source: Suffolk County Department of Health Services
Telephone: 631-854-2521
Last EDR Contact: 05/13/2011
Next Scheduled EDR Contact: 08/22/2011
Data Release Frequency: Annually

Storage Tank Database
A listing of underground storage tank sites located in Suffolk County.

Date of Government Version: 09/13/2006
Date Data Arrived at EDR: 01/11/2007
Date Made Active in Reports: 02/07/2007
Number of Days to Update: 27

Source: Suffolk County Department of Health Services
Telephone: 631-854-2521
Last EDR Contact: 05/13/2011
Next Scheduled EDR Contact: 08/22/2011
Data Release Frequency: Annually

WESTCHESTER COUNTY:

Listing of Storage Tanks
A listing of aboveground storage tank sites located in Westchester County.

Date of Government Version: 05/25/2011
Date Data Arrived at EDR: 05/27/2011
Date Made Active in Reports: 07/06/2011
Number of Days to Update: 40

Source: Westchester County Department of Health
Telephone: 914-813-5161
Last EDR Contact: 05/09/2011
Next Scheduled EDR Contact: 08/22/2011
Data Release Frequency: Varies

Listing of Storage Tanks
A listing of underground storage tank sites located in Westchester County.

Date of Government Version: 05/25/2011
Date Data Arrived at EDR: 05/27/2011
Date Made Active in Reports: 07/06/2011
Number of Days to Update: 40

Source: Westchester County Department of Health
Telephone: 914-813-5161
Last EDR Contact: 05/09/2011
Next Scheduled EDR Contact: 08/22/2011
Data Release Frequency: Varies

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: 12/31/2007
Date Data Arrived at EDR: 08/26/2009
Date Made Active in Reports: 09/11/2009
Number of Days to Update: 16

Source: Department of Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 05/26/2011
Next Scheduled EDR Contact: 09/05/2011
Data Release Frequency: Annually

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 07/22/2010
Date Made Active in Reports: 08/26/2010
Number of Days to Update: 35

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 07/20/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Annually

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2008
Date Data Arrived at EDR: 12/01/2009
Date Made Active in Reports: 12/14/2009
Number of Days to Update: 13

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 07/15/2011
Next Scheduled EDR Contact: 10/10/2011
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2010
Date Data Arrived at EDR: 06/24/2011
Date Made Active in Reports: 06/30/2011
Number of Days to Update: 6

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 05/31/2011
Next Scheduled EDR Contact: 09/12/2011
Data Release Frequency: Annually

VT MANIFEST: Hazardous Waste Manifest Data
Hazardous waste manifest information.

Date of Government Version: 05/13/2011
Date Data Arrived at EDR: 05/20/2011
Date Made Active in Reports: 07/08/2011
Number of Days to Update: 49

Source: Department of Environmental Conservation
Telephone: 802-241-3443
Last EDR Contact: 04/25/2011
Next Scheduled EDR Contact: 08/08/2011
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 07/06/2010
Date Made Active in Reports: 07/26/2010
Number of Days to Update: 20

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 06/20/2011
Next Scheduled EDR Contact: 10/03/2011
Data Release Frequency: Annually

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data
Source: Rextag Strategies Corp.
Telephone: (281) 769-2247
U.S. Electric Transmission and Power Plants Systems Digital GIS Data

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, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Freshwater Wetlands
Source: Department of Environmental Conservation
Telephone: 518-402-8961

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

STREET AND ADDRESS INFORMATION

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GEOCHECK® - PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

FALLOW LAND
154 S OGDEN ST
BUFFALO, NY 14210

TARGET PROPERTY COORDINATES

Latitude (North):	42.86400 - 42° 51' 50.4"
Longitude (West):	78.806 - 78° 48' 21.6"
Universal Tranverse Mercator:	Zone 17
UTM X (Meters):	679231.6
UTM Y (Meters):	4747832.5
Elevation:	582 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	42078-G7 BUFFALO SE, NY
Most Recent Revision:	1965
North Map:	42078-H7 BUFFALO NE, NY
Most Recent Revision:	1965

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.

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).

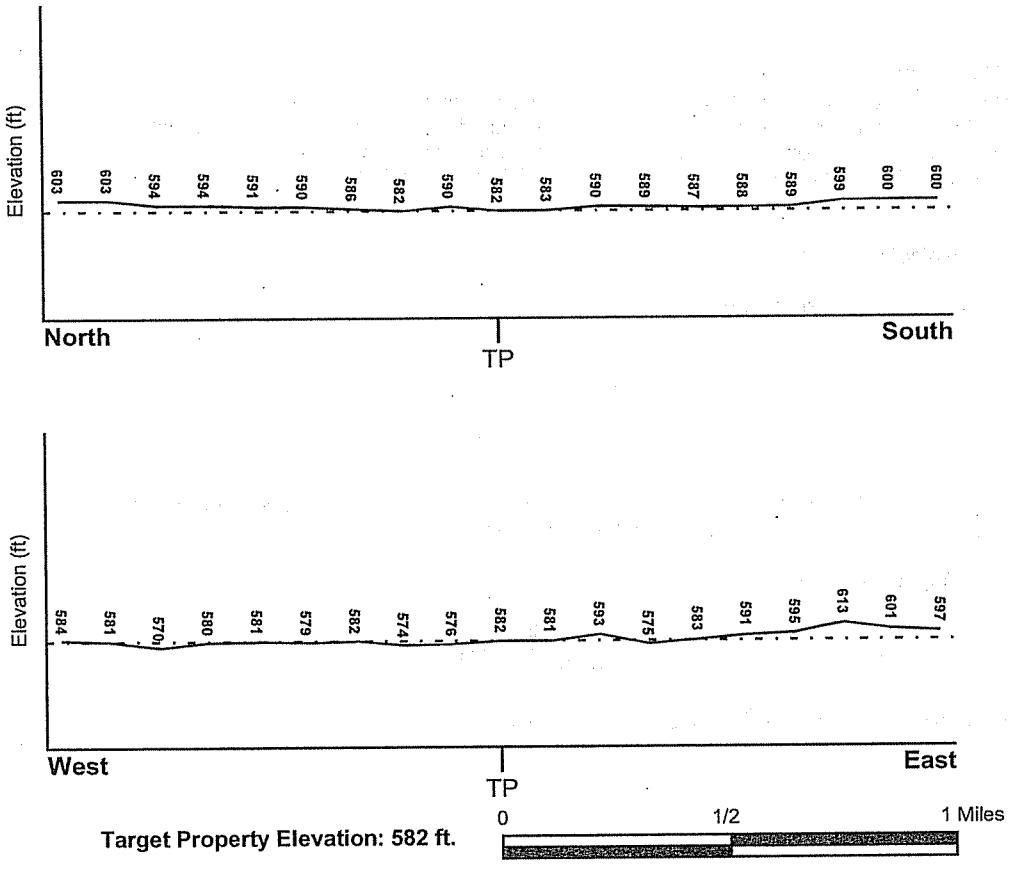
TOPOGRAPHIC INFORMATION

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 NW

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 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

Target Property County	FEMA Flood Electronic Data
ERIE, NY	YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property: 36029C - FEMA DFIRM Flood data

Additional Panels in search area: Not Reported

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
BUFFALO SE	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.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
5	1/2 - 1 Mile North	S

For additional site information, refer to Physical Setting Source Map Findings.

* ©1996 Site-specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

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

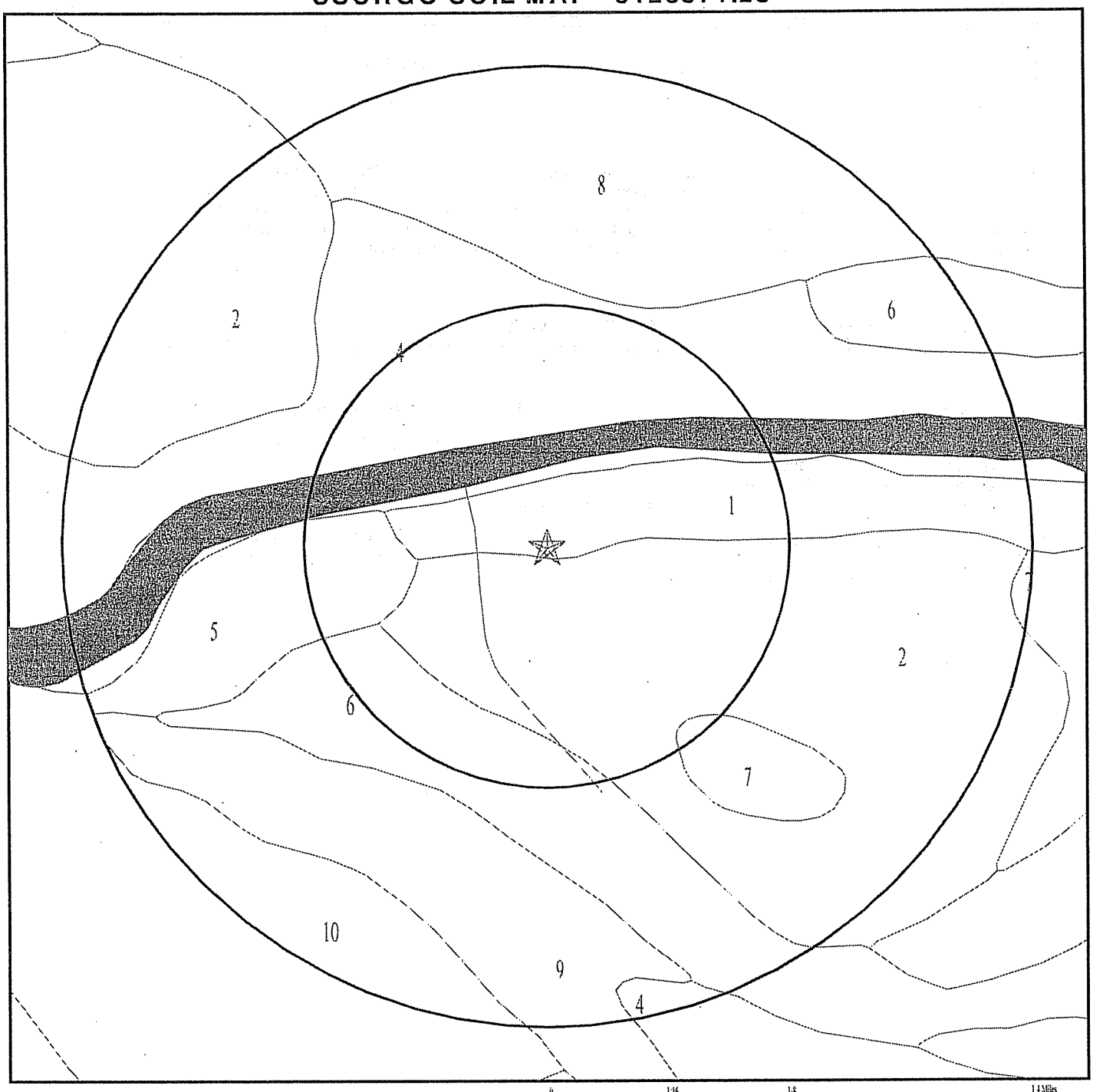
Era:	Paleozoic
System:	Devonian
Series:	Middle Devonian
Code:	D2 *(decoded above as Era, System & Series)*

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).

SSURGO SOIL MAP - 3128371.2s



☆ Target Property
SSURGO Soil
Water

SITE NAME: Fallow Land ADDRESS: 154 S Ogden St Buffalo NY 14210 LAT/LONG: 42.8640 / 78.8060	CLIENT: LCS, Inc CONTACT: Stephanie Laplaca INQUIRY #: 3128371.2s DATE: July 20, 2011 4:43 pm

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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:	Udorthents
Soil Surface Texture:	
Hydrologic Group:	Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.
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: 2

Soil Component Name:	Dumps
Soil Surface Texture:	
Hydrologic Group:	Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.
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:	Water
Soil Surface Texture:	
Hydrologic Group:	Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.
Soil Drainage Class:	
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: 4

Soil Component Name:	Urban land
Soil Surface Texture:	
Hydrologic Group:	Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.
Soil Drainage Class:	
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: 5

Soil Component Name:	Hamlin
Soil Surface Texture:	silt 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

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 137 inches

Soil Layer Information

	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 7.8 Min: 5.6
2	7 inches	42 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 7.8 Min: 5.6
3	42 inches	64 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 7.8 Min: 5.6

Soil Map ID: 6

Soil Component Name: Teel

Soil Surface Texture: silt 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: Moderately well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 54 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 7.8 Min: 5.6
2	9 inches	48 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 7.8 Min: 5.6
3	48 inches	59 inches	stratified very fine sandy loam to silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 7.8 Min: 5.6

Soil Map ID: 7

Soil Component Name: Wayland

Soil Surface Texture: silt loam

Hydrologic Group: Class C/D - Drained/undrained hydrology class of soils that can be drained and classified.

Soil Drainage Class: Very poorly drained

Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 7 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	27 inches	44 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.4 Min: 0.42	Max: 8.4 Min: 5.6
2	0 inches	9 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.4 Min: 0.42	Max: 8.4 Min: 5.6
3	9 inches	27 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.4 Min: 0.42	Max: 8.4 Min: 5.6
4	44 inches	59 inches	stratified silt loam to very fine sand	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.4 Min: 0.42	Max: 8.4 Min: 5.6

Soil Map ID: 8

Soil Component Name: Urban

Soil Surface Texture: silt loam

Hydrologic Group: Class C/D - Drained/undrained hydrology class of soils that can be drained and classified.

Soil Drainage Class:
Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 31 inches

No Layer Information available.

Soil Map ID: 9

Soil Component Name: Canadice

Soil Surface Texture: silt loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Poorly drained

Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 15 inches

Soil Layer Information

	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Elastic silt.	Max: 0 Min: 0	Max: 8.4 Min: 6.6
2	7 inches	53 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Elastic silt.	Max: 0 Min: 0	Max: 8.4 Min: 6.6
3	53 inches	64 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Elastic silt.	Max: 0 Min: 0	Max: 8.4 Min: 6.6

Soil Map ID: 10

Soil Component Name: Rhinebeck

Soil Surface Texture: silt loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Somewhat poorly drained

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 31 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.1
2	9 inches	37 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.1
3	37 inches	70 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.1

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

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
2	USGS2240720	1/2 - 1 Mile NNW
3	USGS2240740	1/2 - 1 Mile North
4	USGS2240744	1/2 - 1 Mile NNE
6	USGS2240749	1/2 - 1 Mile NNE

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

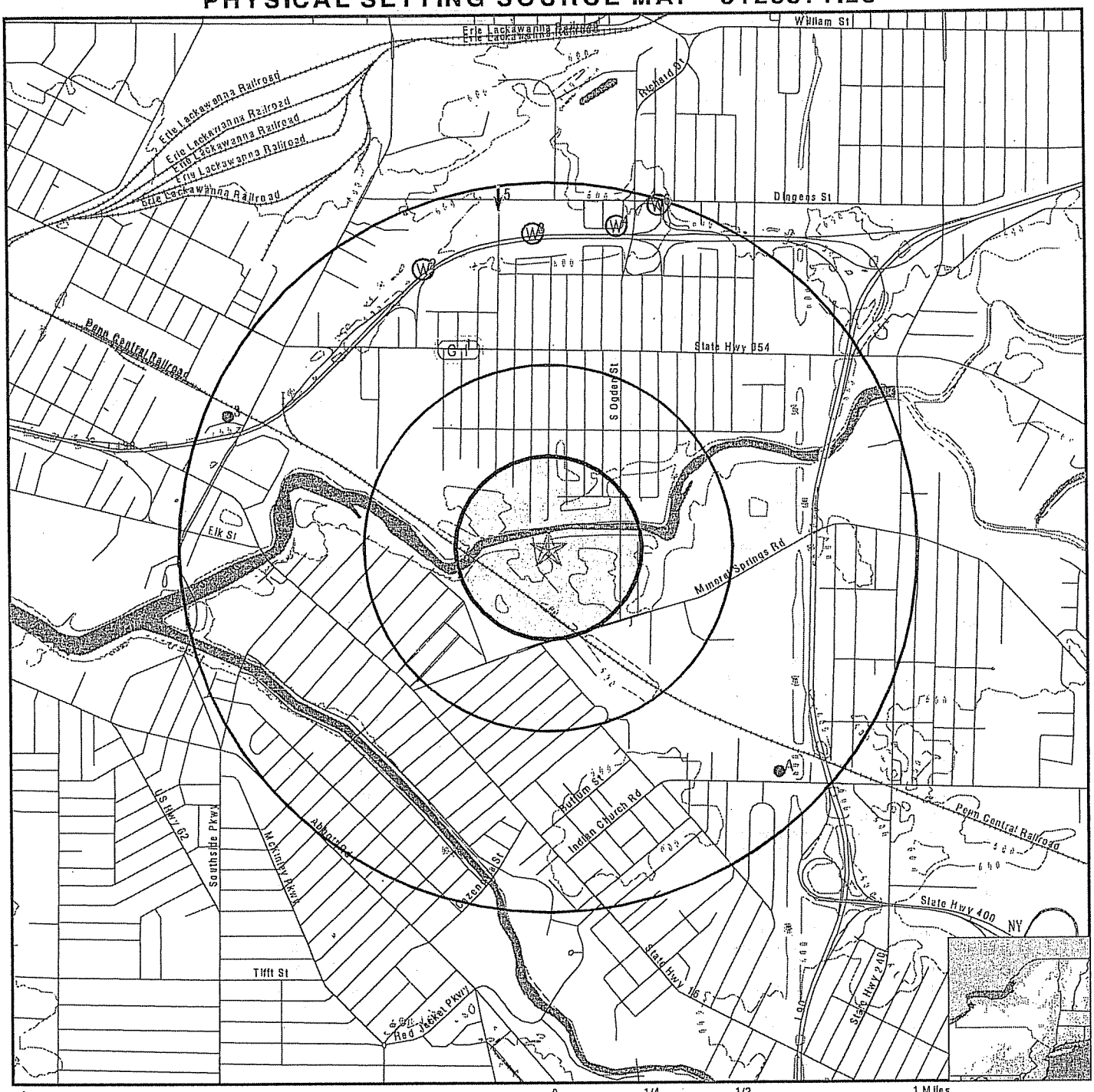
MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

OTHER STATE DATABASE INFORMATION

STATE OIL/GAS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A1	NYOG70000036004	1/2 - 1 Mile SE
A2	NYOG70000035990	1/2 - 1 Mile SE
3	NYOG70000036320	1/2 - 1 Mile WNW

PHYSICAL SETTING SOURCE MAP - 3128371.2s



- County Boundary
- Major Roads
- Contour Lines
- 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

SITE NAME: Fallow Land ADDRESS: 154 S Ogden St Buffalo NY 14210 LAT/LONG: 42.8640 / 78.8060	CLIENT: LCS, Inc CONTACT: Stephanie Laplaca INQUIRY #: 3128371.2s DATE: July 20, 2011 4:43 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

			Database	EDR ID Number
1 **NNW** **1/2 - 1 Mile** **Higher**	Site ID:	9207919	**AQUIFLOW**	**60447**
	Groundwater Flow:	Not Reported		
	Shallowest Water Table Depth:	83.65		
	Deepest Water Table Depth:	92.93		
	Average Water Table Depth:	Not Reported		
	Date:	12/1995		

2
NNW
1/2 - 1 Mile
Higher

FED USGS **USGS2240720**

Agency cd:	USGS	Site no:	425230078484601
Site name:	E 242		
Latitude:	425230	EDR Site id:	USGS2240720
Longitude:	0784846	Dec lat:	42.87505831
Dec lon:	-78.81253316	Coor meth:	M
Coor accr:	T	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	36
State:	36	County:	029
Country:	US	Land net:	Not Reported
Location map:	BUFFALO NE J-05-2	Map scale:	24000
Altitude:	596		
Altitude method:	Interpolated from topographic map		
Altitude accuracy:	5		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Not Reported		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	19880421	Mean greenwich time offset:	EST
Local standard time flag:	N		
Type of ground water site:	Test hole, not completed as a well		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	Not Reported	Hole depth:	Not Reported
Source of depth data:	Not Reported		
Project number:	NY86-16400		
Real time data flag:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data end date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data begin date:	Not Reported	Peak flow data end date:	Not Reported
Peak flow data count:	Not Reported	Water quality data begin date:	Not Reported
Water quality data end date:	Not Reported	Water quality data count:	Not Reported
Ground water data begin date:	Not Reported	Ground water data end date:	Not Reported
Ground water data count:	Not Reported		

Ground-water levels, Number of Measurements: 0

3
North
1/2 - 1 Mile
Higher

FED USGS **USGS2240740**

Agency cd:	USGS	Site no:	425235078482501
Site name:	E 254		
Latitude:	425235	EDR Site id:	USGS2240740
Longitude:	0784825	Dec lat:	42.87644721
Dec lon:	-78.80669964	Coor meth:	M
Coor accr:	T	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	36
State:	36	County:	029
Country:	US	Land net:	Not Reported
Location map:	BUFFALO NE J-05-2	Map scale:	24000
Altitude:	596		
Altitude method:	Interpolated from topographic map		
Altitude accuracy:	5		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Not Reported		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	19880421	Mean greenwich time offset:	EST
Local standard time flag:	N		
Type of ground water site:	Test hole, not completed as a well		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	Not Reported	Hole depth:	Not Reported
Source of depth data:	Not Reported		
Project number:	NY86-16400		
Real time data flag:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data end date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data begin date:	Not Reported	Peak flow data end date:	Not Reported
Peak flow data count:	Not Reported	Water quality data begin date:	Not Reported
Water quality data end date:	Not Reported	Water quality data count:	Not Reported
Ground water data begin date:	Not Reported	Ground water data end date:	Not Reported
Ground water data count:	Not Reported		

Ground-water levels, Number of Measurements: 0

4
NNE
1/2 - 1 Mile
Higher

FED USGS **USGS2240744**

Agency cd:	USGS	Site no:	425236078480901
Site name:	E 256		
Latitude:	425236	EDR Site id:	USGS2240744
Longitude:	0784809	Dec lat:	42.87672501
Dec lon:	-78.80225504	Coor meth:	M
Coor accr:	T	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	36
State:	36	County:	029
Country:	US	Land net:	Not Reported
Location map:	BUFFALO NE J-05-2	Map scale:	24000
Altitude:	595		
Altitude method:	Interpolated from topographic map		
Altitude accuracy:	5		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Not Reported		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	19880421	Mean greenwich time offset:	EST

Local standard time flag:	N		
Type of ground water site:	Test hole, not completed as a well		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	Not Reported	Hole depth:	Not Reported
Source of depth data:	Not Reported		
Project number:	NY86-16400		
Real time data flag:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data end date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data begin date:	Not Reported	Peak flow data end date:	Not Reported
Peak flow data count:	Not Reported	Water quality data begin date:	Not Reported
Water quality data end date:	Not Reported	Water quality data count:	Not Reported
Ground water data begin date:	Not Reported	Ground water data end date:	Not Reported
Ground water data count:	Not Reported		

Ground-water levels, Number of Measurements: 0

5
North
1/2 - 1 Mile
Higher

AQUIFLOW **60424**

Site ID:	9307514
Groundwater Flow:	S
Shallowest Water Table Depth:	94.83
Deepest Water Table Depth:	96.80
Average Water Table Depth:	Not Reported
Date:	04/1994

6
NNE
1/2 - 1 Mile
Higher

FED USGS **USGS2240749**

Agency cd:	USGS	Site no:	425239078480101
Site name:	E 260		
Latitude:	425239	EDR Site id:	USGS2240749
Longitude:	0784801	Dec lat:	42.87755835
Dec lon:	-78.80003275	Coor meth:	M
Coor accr:	T	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	36
State:	36	County:	029
Country:	US	Land net:	Not Reported
Location map:	BUFFALO NE J-05-2	Map scale:	24000
Altitude:	600		
Altitude method:	Interpolated from topographic map		
Altitude accuracy:	5		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Not Reported		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	19880421	Mean greenwich time offset:	EST
Local standard time flag:	N		
Type of ground water site:	Test hole, not completed as a well		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	Not Reported	Hole depth:	Not Reported
Source of depth data:	Not Reported		
Project number:	NY86-16400		
Real time data flag:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data end date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data begin date:	Not Reported	Peak flow data end date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Peak flow data count: Not Reported
Water quality data end date: Not Reported
Ground water data begin date: Not Reported
Ground water data count: Not Reported

Water quality data begin date: Not Reported
Water quality data count: Not Reported
Ground water data end date: Not Reported

Ground-water levels, Number of Measurements: 0

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance — Database — EDR ID Number

A1
SE
1/2 - 1 Mile — **OIL_GAS** — **NYOG70000036004**

Api wellno:	31029686110000	Cnty:	Erie
Hole:	68611	Sidetrck:	0
Completion:	0		
Well nm:	Madison Wire 1		
Coname:	Madison Wire Hazardous Waste		
Opno:	9000		
Dt approv:	04/23/1973	Dt spud:	04/16/1973
Dt comp:	12/18/1973	Well typ:	Gas Development
Dtd:	947		
Wl status:	Plugged and Abandoned	Town:	West Seneca
Field:	Buffalo	Prodform:	Not Applicable
Xloc:	-78.79375		
Yloc:	42.85547		
Confid:	Well does not have confidential information.		
Wellst:	Gas Well Plugged		
Quad:	Buffalo SE	Quadsec:	B
Deepestfor:	Not Applicable	Elevation:	593
Dt mod:	04/25/1994	Site id:	NYOG70000036004

A2
SE
1/2 - 1 Mile — **OIL_GAS** — **NYOG70000035990**

Api wellno:	31029686530000	Cnty:	Erie
Hole:	68653	Sidetrck:	0
Completion:	0		
Well nm:	Madison Wire 2		
Coname:	Madison Wire Hazardous Waste		
Opno:	9000		
Dt approv:	04/23/1973	Dt spud:	04/16/1973
Dt comp:	12/18/1973	Well typ:	Not Listed
Dtd:	106		
Wl status:	Plugged and Abandoned	Town:	West Seneca
Field:	Not Applicable	Prodform:	Not Applicable
Xloc:	-78.79374		
Yloc:	42.85477		
Confid:	Well does not have confidential information.		
Wellst:	Other Well Plugged		
Quad:	Buffalo SE	Quadsec:	B
Deepestfor:	Not Applicable	Elevation:	592
Dt mod:	04/25/1994	Site id:	NYOG70000035990

3
WNW
1/2 - 1 Mile — **OIL_GAS** — **NYOG70000036320**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Api wellno:	31029137020000	Cnty:	Erie
Hole:	13702	Sidetrck:	0
Completion:	0		
Well nm:	West Seneca		
Coname:	Think Solutions Inc.		
Opno:	2586		
Dt approv:	10/25/1978	Dt spud:	03/27/1979
Dt comp:	04/28/1979	Well typ:	Gas Development
Dtd:	1081		
Wl status:	Not Reported on AWR	Town:	Buffalo
Field:	Buffalo	Prodform:	Medina
Xloc:	-78.82303		
Yloc:	42.86928		
Confid:	Well does not have confidential information.		
Wellst:	Gas Well		
Quad:	Buffalo SE	Quadsec:	B
Deepestfor:	Queenston	Elevation:	590
Dt mod:	04/12/2011	Site id:	NYOG70000036320

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
ERIE	ALDEN	118	5.67	1.87	185.3
ERIE	AMHERST	819	2.6	1.15	115.6
ERIE	AURORA	429	10.99	4.48	215.6
ERIE	BOSTON	94	9.45	4.53	49.9
ERIE	BRANT	9	12.9	4.13	78.7
ERIE	BUFFALO	792	1.17	0.68	20.2
ERIE	CHEEKTOWAGA	421	1.04	0.71	30.8
ERIE	CLARENCE	233	6.83	2.39	207.8
ERIE	COLDEN	42	5.52	3.44	38
ERIE	COLLINS	48	11.83	4.76	115.1
ERIE	CONCORD	176	15.79	7.87	163
ERIE	EDEN	161	6.69	3.32	206.7
ERIE	ELMA	272	8.37	3.25	213.6
ERIE	EVANS	117	5.7	2.89	92.3
ERIE	GRAND ISLAND	77	1.36	0.99	7.5
ERIE	HAMBURG	719	5	2.2	136.8
ERIE	HOLLAND	52	8.34	3.58	122.9
ERIE	KENMORE	143	0.75	0.56	4.8
ERIE	LACKAWANNA	39	1.48	0.84	11.4
ERIE	LANCASTER	165	2.86	1.18	155.1
ERIE	MARILLA	238	28.93	9.29	371.9
ERIE	NEWSTEAD	86	3.45	2.34	18
ERIE	NO. COLLINS	28	7.97	3.88	75.6
ERIE	ORCHARD PARK	466	4.54	2.32	116.9
ERIE	SARDINIA	24	23.15	9	121.2
ERIE	TONAWANDA	378	1.05	0.73	18.9
ERIE	W. SENECA	249	2.51	1.33	55.8
ERIE	WALES	42	12.41	4.54	181.7

Federal EPA Radon Zone for ERIE County: 1

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 ERIE COUNTY, NY

Number of sites tested: 622

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area	1.000 pCi/L	89%	11%	0%
Basement	1.150 pCi/L	87%	11%	2%

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.

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

State Wetlands 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. 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).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services
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 Services (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, 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.

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

PHYSICAL SETTING SOURCE RECORDS SEARCHED

STREET AND ADDRESS INFORMATION

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SITE CONDITION REPORT

LCS, INC.
SITE CONDITION REPORT

PROJ. # 118201121 DATE 7/20/11 EMPLOYEE NAME(s) Megan.
PERSONS PRESENT/TITLES None. Yrs. associated w/site ____
Yrs. associated w/site ____
QUESTIONNAIRE (CIRCLE ONE): completed on-site or given to: Scott Roth (Realtor)
LIMITATIONS: Vegetation.
Roof Inspected? (circle) Yes/No N/A.
SITE INSPECTION INCLUDED: Exterior of S.P.

General Site Information			
Name of Site	Fallow land		
Site Address	154 S. Ogden St.		
Municipality, County, State	Buffalo, Erie, NY		
Fronting Streets	Ogden St.		
Site Size (acres)	+/- 26.		
Site Topography (circle)	Level at grade	% Slope (N/S/E/W)	
Nearest Water Body			
Exterior Conditions/ Improvements (circle all that apply)	Outbuildings (#/type) Ø Asphalt Parking areas Concrete sidewalks	Green areas	Trees Landscaping
Locality (circle)	Urban	Suburban	Rural
Area Development (circle)	~~Highly~~	~~Moderately~~	~~Lightly~~
Area Character (circle all that apply)	Industrial Agricultural	Commercial Wooded	Residential ~~Fallow~~
Grounds (circle all that apply)	Fill material (type/location) ____ Dead/stressed vegetation (amt/location) ____ Debris/dumping (type/location) ____ Storm drains (location/discharge to) ____		

DESCRIPTION OF CURRENT ON-SITE OPERATIONS: Fallow land.

CURRENT TENANTS: (if multi-tenant, attach list or rent roll) N/A

ACCORDING TO THE SITE CONTACT, PAST ON-SITE OPERATIONS INCLUDED (including current buildings and previously developments and DATES): ____

ACCORDING TO THE SITE CONTACT, HISTORIC TENANTS INCLUDED: ____

STRUCTURES **NOTE: ALWAYS USE ONE SHEET PER STRUCTURE**

TOTAL NO. OF BUILDINGS ON-SITE: 6

Building Information						
Building Name:					Building Construction Date	
Sq. Ft. of Building:					No. Stories:	
Building Use(s)/Operations						
Heating System/Location					Heat Source:	
Utilities Provided (circle):	Natural gas	Electric				
Water source (circle)	Municipal / Private	**Sanitary System (circle):**	Municipal / Private (septic)			
Basement (circle)	Full / Partial / None					
Building Condition (circle)	Excellent	Good	Fair	Poor		
Building Envelope (circle)	Block	Poured Concrete	Steel	Wood	Brick	
Siding (circle)	Wood	Aluminum	Vinyl	Asbestos	Transite	Brick
Roof (circle)	Flat	Peaked	Flashings	Mansard		
Elevator (circle)	No / Yes (location)_____		Pit? :_____			
Floor drains (circle)	No / Yes (location)_____		Discharge to:_____			
Sump pit (circle)	No / Yes (location)_____		Discharge to:_____			

NOTES:
- Metal pipe in NE Corner, poss. utility Related
- Marsh/Water plants T.O.S.D.
- add pipeline on N portion.
- Construction/Brick/asphalt dumping on N portion.

- Neighbor stated that drums had previously been removed from site, None seen on inspection.
- Same Neighbor (House 91) stated there were junk cars on-site, None seen during inspection

UTILITIES PROVIDED BY: NAT. GAS UNK ELECTRIC UNK
SEWER (circle): MUNICIPAL/ Connection date: _____ PROVIDED BY: _____
PRIVATE SEPTIC/ Date of last passed percolation test: _____

WATER (circle): MUNICIPAL PROVIDED BY: UNK
WELL (location) _____

EVIDENCE OF FORMER HEATING SYSTEM? (circle) NO YES, TYPE _____
EVIDENCE OF FORMER SEPTIC SYSTEM? (circle) NO YES, LOCATION _____

DRYWELLS/INJECTION WELLS:
LOCATIONS: _____ DEPTH: _____
USE OF WELL: _____ SAMPLE RESULTS: _____

PCBs:

Suspect PCB Container	#/Location	Owner	Evidence of Leaks (Y/N)	Labeled (Y/N)
Transformer (pole-mounted)				
Transformer (pad-mounted)				
Lifts				
Elevators				
Fluorescent lights				

BULK STORAGE TANKS: Total # USTS on-site: _____ **Total # ASTs on-site:** _____
Total # vents: _____ **Total # fills** _____ **Total # monitoring wells** _____

Characteristics	Tank #1	Tank #2	Tank #3
AST/UST			
Location			
Registered/Permitted (Dates)			
Date of Last Test			
Capacity			
Product			
Single/Double Walled			
Age			
Type of Monitoring System			
Any releases/spills?			
Status (circle)	Active Inactive Closed	Active Inactive Closed	Active Inactive Closed

EVIDENCE OF ADDITIONAL USTs (VENT PIPES/FILL PORTS, ETC.; LOCATION):
_____
WERE ANY USTs **EXCAVATED** FROM or **FILLED** IN-PLACE ON PROPERTY? DATE: _____
CONTRACTOR NAME: _____ DOCUMENTATION AVAILABLE? _____
CONDITIONS IN AREA OF FORMER USTS (stained, stressed, dead vegetation/surfaces) _____
_____

LEAD:

Material/surface	Location	Approx. Quantity of Damaged Materials
Walls		
Ceilings		
Pipes, soldering		

ANY PREVIOUS LBP TESTING CONDUCTED ON-SITE? _____ NO _____ YES (obtain copy)

ASBESTOS: Year Built _____

Materials	Sizes/ Location	Condition (good, fair, poor)	Approx. Quantity of Damaged Materials
Ceiling Tiles			
Drywall and plaster			
Floor tiles			
Roofing felts and/or materials			
Spray on fireproofing			
HVAC system insulating materials			

IF UNDERGOING RENOVATION: IS O & M PLAN IN-PLACE? ____ WAS ACM SURVEY DONE? _____

ODORS: (circle)
SOLVENTS NATURAL GAS PETROLEUM OTHER
LOCATION: _____

SUSPECT MOLD:

Location	Approximate Quantity

IS THERE EVIDENCE OF MOISTURE AND/OR MUSTY ODORS? _____ NO _____ YES
IF SO, WHERE? _____
Did LCS observe evidence of significant amounts of suspected mold growth within the subject building? If so, what type of material was impacted and the square footage of that impact?
No ____ Yes ____ Explain: _____
Did LCS note any moldy odors within the subject building?
No ____ Yes ____ Explain: _____
Did LCS observe evidence of ponding on the roof of the subject building?
Roof not inspected _____ No ____ Yes ____ Explain: _____
Did LCS observe evidence of excessive patching on the roof of the subject building?
Roof not inspected _____ No ____ Yes ____ Explain: _____
Did LCS observe any water staining, standing water or discoloration on any walls, floors, ceilings or other building materials? If so, what type of material was impacted and the square footage of that impact?
No ____ Yes ____ Explain: _____

SUSPECT MOLD (continued):

Did LCS observe any evidence of flooding, plumbing/sewer leaks, roof/window leaks, groundwater intrusion or discharge of a sprinkler system within the subject building?

No ____ Yes ____ Explain: _____

Did LCS observe any areas of high humidity (e.g., indoor pools, spas, whirlpools, saunas, decorative fountains) located within the subject building? If so, was there any evidence of water staining or standing water within such areas?

No ____ Yes ____ Explain: _____

Did LCS observe any heat exchangers/cooling towers within any mechanical areas of the subject building? If so, was there any evidence of water staining or standing water within such areas?

No ____ Yes ____ Explain: _____

PERMITS (IF YES, OBTAIN COPIES): **(circle)**

NPDES/SPDES RCRA HAZ. WASTE SEWER DISCHARGE AIR EMISSIONS OTHER

HAZARDOUS MATERIALS:

Material	Source/ Process	Storage Container/Location	Approx. Quantity On-Site	Condition
Cleaning supplies				

ADEQUATE STORAGE PRACTICES? (circle) NO YES (Add comments if no.)

_____

MSDS'S (circle) NO YES (COPIES OR REVIEWED ON-SITE)

HAZARD COMMUNICATION PROGRAM? NO YES

55-GALLON DRUMS/BARRELS OTHER CONTAINERS:

LIST AMOUNT, CONTENTS, LOCATION, LABELED, CONDITION:

_____

_____

WASTES:

Material	Source/ Process	Storage Container/ Location	Approx Quantity On-Site	Condition	Transporter
Solid					
Recycling					
Waste oil					

Obtain copies of disposal receipts, if available.

DRY CLEANERS:

CURRENT MACHINE TYPE? _____ AGE OF CURRENT MACHINE? _____
LOCATION OF MACHINE (basement, 1st floor, etc): _____
FORMER MACHINE TYPE? _____
HOW LONG HAS DRY CLEANING BEEN CONDUCTED ON-SITE? _____

FILM DEVELOPING/X-RAYS:

SILVER RECOVERY SYSTEM IN PLACE? _____ NO _____ YES
LEAD LINED WALLS FOR X-RAY ROOMS? _____ NO _____ YES

ADJACENT PROPERTIES:

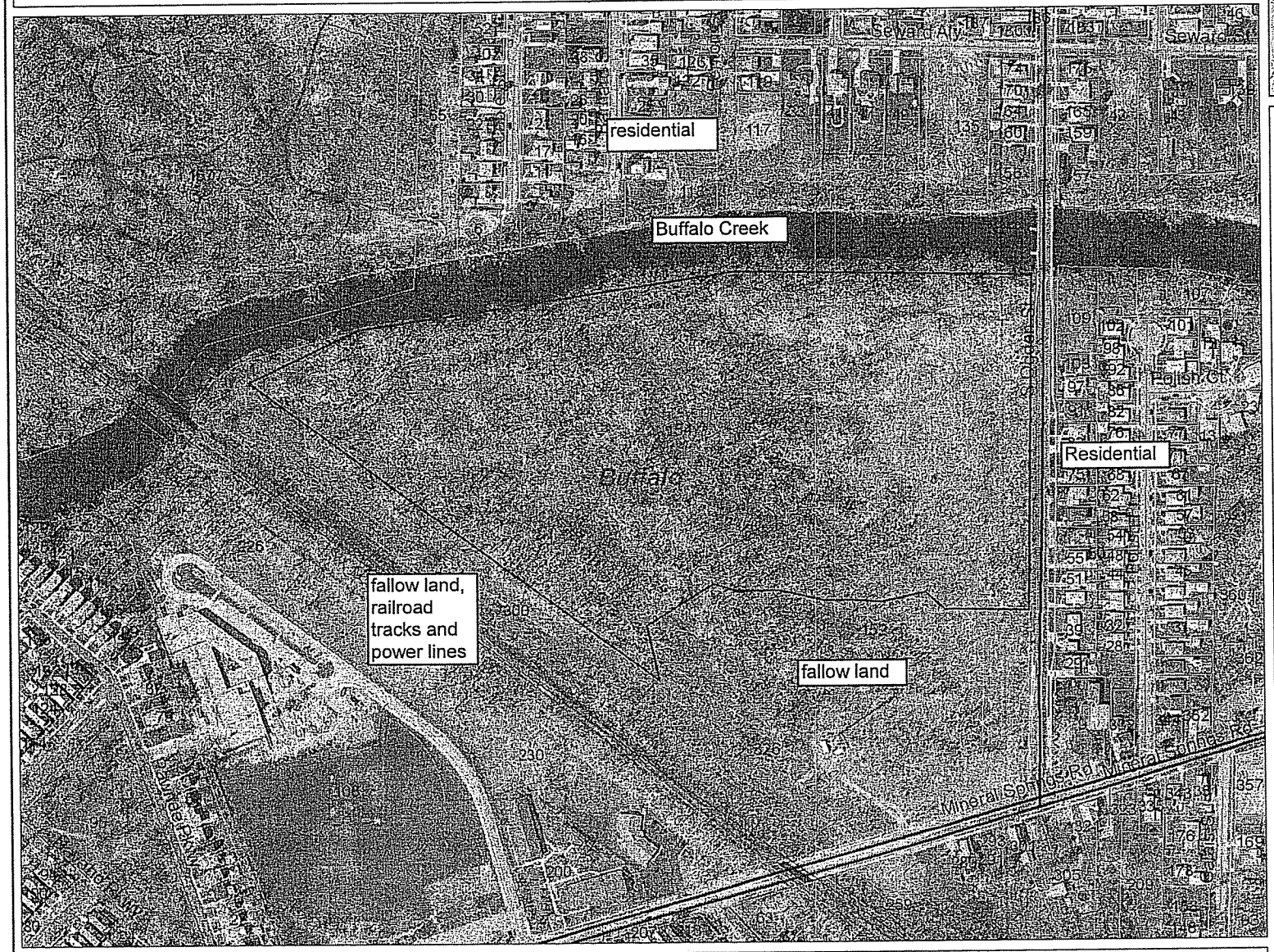
List names and type of operations adjacent and next adjacent to subject property.

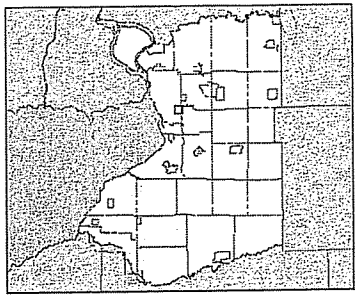
Direction	Current Use	Apparent Past Use	Comments/Concerns
North (address)	River.		
South (address)	Fallow Land w/cell Tower.		
East (address)	Residential		
West (address)	Fallow Land / R.R. tracks		

GENERATORS: (firing source?) Ø **COMPRESSORS::**(releases?) Ø

ADDITIONAL NOTES:

Erie County On-Line Mapping System





Legend

- Railroads
- Streets and Highways
  - Interstate
  - Primary State Road
  - Secondary State Road
  - County Road
  - Local Road
- Parcels
- 1ft Color Orthos
  - Red: Band_1
  - Green: Band_2
  - Blue: Band_3
- 2ft Color Orthos
  - Red: Band_1
  - Green: Band_2
  - Blue: Band_3

1: 4,287

Notes

Enter Map Description

0.1 0 0.07 0.1 Miles

Erie County and its officials and employees assume no responsibility or legal liability for the accuracy, completeness, reliability, timeliness, or usefulness of any information provided. Tax parcel data was prepared for tax purposes only and is not to be reproduced or used for surveying or conveyancing.

ERIE COUNTY, NEW YORK
DEPARTMENT OF ENVIRONMENT & PLANNING
OFFICE OF GEOGRAPHIC INFORMATION SERVICES

LCS OWNER/OPERATOR QUESTIONNAIRE

As part of this assessment, the LCS Owner/Operator Questionnaire was forwarded to Mr. Scott Roth (Realtor associated with the subject property) on July 20, 2011, for completion. As of the date of this report, LCS has yet to receive the completed questionnaire.

SUPPORTING DOCUMENTATION

LCS INC.
Environmental and Real Estate Consultants

CORPORATE OFFICES
WATERFRONT VILLAGE
40 LA RIVIERE DRIVE, SUITE 120
BUFFALO, NEW YORK 14202

TEL: 800.474.6802
716.845.6145
FAX: 716.845.6164
www.lenderconsulting.com

July 21, 2011

Mr. Peter Grasso
Foil Coordinator
NYS Department of Environmental Conservation
270 Michigan Ave.
Buffalo, NY, 14213, 2009

PLEASE REFERENCE THIS # WHEN RESPONDING11B2011.21

Dear Mr. Grasso:
Our firm is performing an Environmental Assessment of a real property located within the jurisdiction of NYS region 9. Under the Freedom of Information Law (FOIL), I am writing to request that a review be made of NYSDEC region 9 department records, which are relevant to the purpose of this Environmental Assessment. Please forward this FOIL request to the following NYSDEC departments for review of department records, if available with regards to the subject site or facility (referenced below).
1) Law Enforcement/Legal Affairs/Env. Enforcement - complaint/notice of violation files, legal proceedings.
2) Solid and Hazardous Waste - site files for active and inactive sites associated with the subject address.
3) NYSDEC Site Inspection Reports associated with the subject address.
4) Spills Division - record of petroleum/chemical releases.

Site:	**Residential Vacant Land**
STREET ADDRESS:	**154 S. Ogden St.**
MUNICIPALITY:	**Buffalo**
COUNTY:	**Erie**
CURRENT OWNER(S):	**Yamin Ahmad**
PAST OWNER(S):	**unk**
Past USE:	**same**
Current USE:	**same**
SIZE:	**26.60acres**
SBL#:	**123.15-1-4**

If you have any questions regarding this request for information, please contact our office at (716)-845-6145 the information that you provide is greatly appreciated.
Sincerely,
Stephanie LaPlaca
LCS Inc.
Email-slaplaca@lenderconsulting.com

LCS, INC.
MUNICIPAL INFORMATION

PROJECT#: 113 2011 21
MUNICIPALITY- (identify Village/Town/City) Buffalo
ADDRESS (identify all potential addresses): 154 S-Ogden St.

Office: Assessment
Date: 7/20/11

*obtain copy of tax map

SBL #/Tax Parcel #: 123.15-1-4
Owner: Ahmad Yamin.
Past owner(s): South Ogden Est.
Size: 26-Acres.
Utilities: All
Additional info.: No Buildings

Office: Building/Code Enforcement Department
Date: 7/20/11

*Review permits, complaints, violations, records of historic heating systems, etc.

No files

Office: Fire Dept
Date: 7/20/11

*Use this section for any additional or as extra for sections above.

No Filed

Rev. Date 7-2004

realRecord™

OWNERSHIP INFORMATION	PARCEL NO: 123.15-1-4
YAMIN AHMAD 154 S OGDEN ST BUFFALO NY 14206-0000	Mail: 941 CLINTON ST BUFFALO NY 14210-1227 PHONE NUMBER:
COUNTY: ERIE PROPERTY CLASS: 311 - RESIDENTIAL VACANT LAND	CENSUS TRACT: 0011.00

SALE INFORMATION

Sale Date	12/05/2003	Price $	30,000	Deed Date	12/05/2003
Arms Length	N	Libre	11064	Page	1956
# Total Parcels	1				
Seller	SOUTH OGDEN ESVATER LTD	Buyer	YAMIN AHMAD	Personal Property	0

PRIOR SALES	PRICE	DATE	ARMS LENGTH	SELLER	BUYER
1	$ 4,949	11/01/1988	Y		

STRUCTURAL INFORMATION

Square Feet	0
Sqft. 1st Floor	
Sqft. 2nd Floor	
Fin. Basement Sqft.	
Year Built	0
Bldg Style	
# Units	1
# Stories	0.00
# Baths	0.00
# Bedrooms	0
# Fireplaces	
# Kitchens	
Garage Type	
Garage Bays	
Cooling Detail	NONE
Heat Type	UNKNOWN
Exterior	
Condition	
Basement Type	

LOT INFORMATION

Lot Size Dim.:	804.39x0.00
Land SQFT	
Lot Size Acres	26.60
Zoning	
Nbhd Code	00490
School District	140200 - BUFFALO
Desirability	TYPICAL
Water Front	N
Sewer	COMM/PUBLIC
Water	COMM/PUBLIC
Utilities	GAS & ELEC
Nbhd. Rating	UNKNOWN
Nbhd. Type	UNKNOWN
# Res. Sites	1
# Comm. Sites	1
Swis Code	140200

TAX INFORMATION

Tax ID#	123.15-1-4
Assessed Value $	37,800
Land Assesment $	37,800
School Tax $	428
County/Town Tax $	207
City/Village Tax $	445
Total Tax $	1,080
Full Tax Value $	37,800
Equalization Rate	1.00
Prior Tax ID#	
Full Land Value $	37,800

*The calculated tax amounts are not exact. No special district tax amounts or exemptions have been included. All numbers are estimated based on town values. Taxes should be verified directly from the local tax collector.

Updated:03/15/2011 2:35 pm

EXEMPTIONS:

IMPROVEMENTS:

Note: Display indicates first residential site and up to four improvements.

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OBJECTID	156714
PIN	14020012315000010040000
SBL	123.15-1-4
Street Number	154
Street Name	OGDEN SOUTH
Frontage	804.39
Depth	0
Assessed Acreage	26.6
Calculated Acreage	27.482
Property Class	311
Property Type	R
Property Description	Res vac land
Owner 1	YAMIN AHMAD
Owner 2	
Mailing Address	941 CLINTON ST
City	BUFFALO NY
Zipcode	14210
School Code	140200
School District	CITY OF BUFFALO
Deed Date	20031205
Deed Roll	1
Deed Book	11064
Deed Page	1956
Assessed Total Value	37800
Assessed Land Value	37800
County Tax	37800
Town Tax	0
School Tax	0
Village tax	0
Year Built	0
SFLA	0
Condition	0
Heat	0
Basement	0
Fireplace	0
Beds	0
Baths	0
Municipality	City of Buffalo
Addnum_str	154
Deed_str	12/05/2003
Shape.area	1197124.78139516
Shape_Length	5061.90338223186

LCS, INC.
QUAD/WETLANDS/SOILS/GEOLOGY

PROJECT #: 11B2011.21
SITE ADDRESS: 154 S. Caden St. Buffalo, NY
OFFICE REVIEWED AT: Own Home.
DATE REVIEWED: 7/22/11

USGS QUAD: Buffalo SE. ELEV.: 575-587 DATE: 1965
Anticipated groundwater flow: South
Nearest creek: Buff. River Dist.: 1 mile Dir.: North

NYSDEC: Environ Resource mapper # OF DATE:
(indicate if none within 2 miles)
NEAREAST WETLAND: MI: 1.16 NSEW SE CLASS BU-13

USFWS: Wetland Mapper. DATE:
(indicate if none within 2 miles)
NEAREST WETLAND: MI: onsite. NSEW onsite CLASS PFO1E.

GEOLOGY: SHEET: Niagara DATE: 1970.
CLASS: Onondaga + Bois Blanc Limestones
SUBCLASS: Onondaga Limestone.

SURFICIAL GEOLOGY: SHEET: Niagara DATE: 1988
CLASS: LSC - Lacustrine Silt + Clay

SOILS: SOIL SURVEY (CO.): Erie SHEET #: DATE:

CLASS: See printout	HYDRIC
CLASS:	HYDRIC
CLASS:	HYDRIC
CLASS: Web Soil Survey	HYDRIC
CLASS:	HYDRIC
CLASS:	HYDRIC

RADON: COUNTY NAME: Erie VALUE:
TOWN NAME: Buffalo VALUE: 1.17

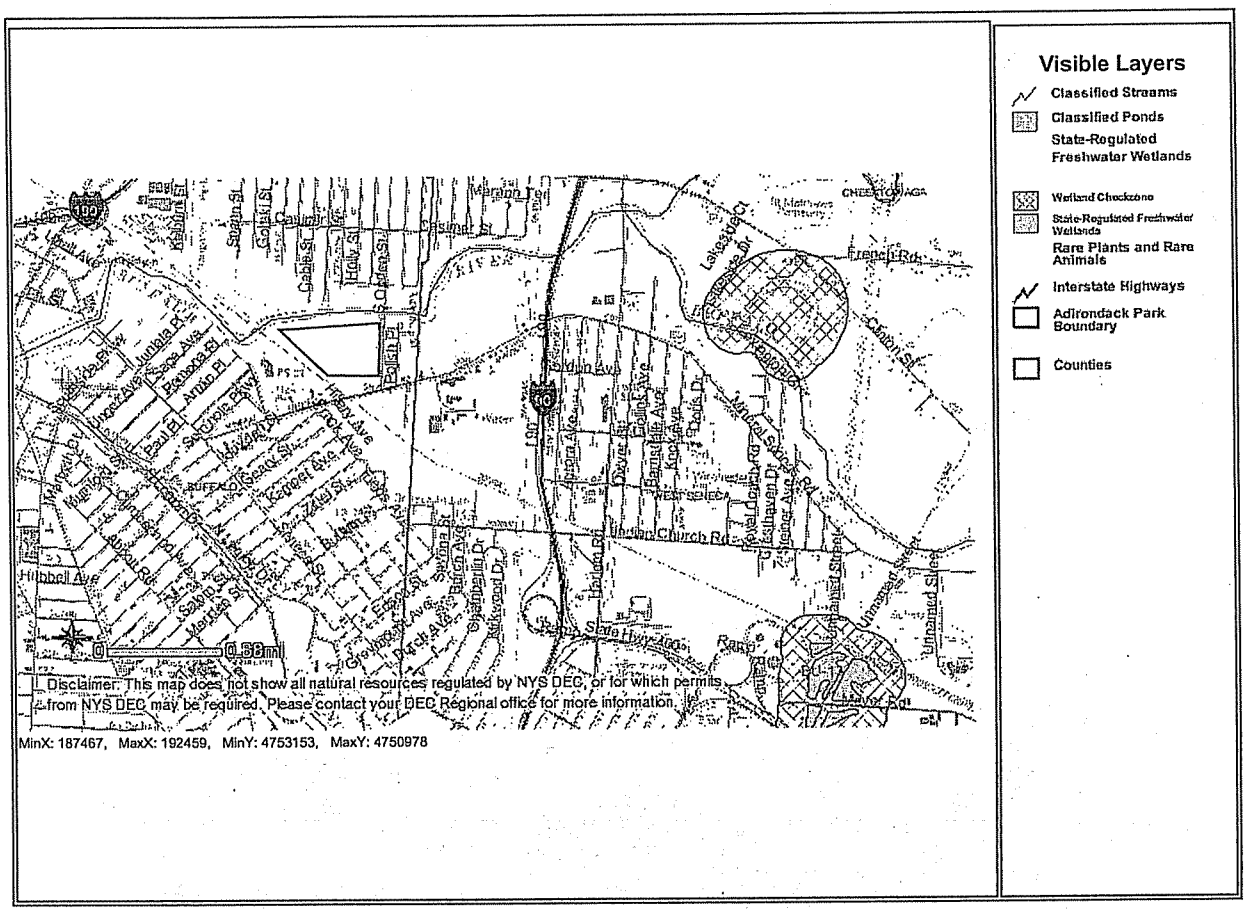
DRAINAGE BASIN: Major: L. Erie-Niagara R. Minor: Tonawanda Creek

LEAD IN DRIKING WATER:

Rev. Date 7-2004

[print page] [close window]

Please set your printer orientation to "Landscape".



Disclaimer:This map was prepared by the New York State Department of Environmental Conservation using the most current data available. It is deemed accurate but is not guaranteed. NYS DEC is not responsible for any inaccuracies in the data and does not necessarily endorse any interpretations or products derived from the data.

U.S. Fish and Wildlife Service

National Wetlands Inventory

Jul 22, 2011

Wetlands

- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

User Remarks:

RESUMES OF ENVIRONMENTAL CONSULTANTS

Name:	**Mark V. LiPuma**
Title:	Chief Executive Officer
Years with Firm:	Twenty-One
Education:	Bachelors of Science, Canisius College, Buffalo, New York
Affiliations:	AIA, CSI, NLAC
Certifications:	EPA Certified Contractor/Supervisor New York State Department of Labor Certified Asbestos Contractor/Supervisor Certified Lead Designer, Planner and Inspector Certified HUD/EPA Inspector and DELEADER ASTM Conference on Environmental Site Assessments for Property Transfer

Experience:

Mr. LiPuma is a graduate of Canisius College with a Bachelors Degree of Science. Over the years, Mr. LiPuma has developed and administered the operations of LCS, Inc.

As the President and Chief Executive Officer of LCS, Mr. LiPuma retains overall responsibility for all environmental investigation projects. Mr. LiPuma is knowledgeable of applicable environmental laws, rules and regulations; and is well recognized in Western New York as well as with select national companies throughout the United States.

Mr. LiPuma recently prepared the asbestos abatement plans and specifications for a $2,000,000 project involving the removal of sprayed-on fireproofing in a facility. Scaffold decking, tight containment requirements and difficult working conditions added to the challenges of this project. The project was recently completed successfully.

Mr. LiPuma has prepared and assisted in the development of asbestos inspection reports for over 800 clients encompassing over 22,000,000 square feet of building space. Additionally, Mr. LiPuma has supervised the inspection, specifications design and project management for LBP and asbestos abatement in over 20 Public housing projects.

Mr. LiPuma's experience is sought after by many lenders and developers. He has assisted in designing environmental policies and has experience in property re-development. This includes asbestos inspection and removal projects through building demolition.

Name:	**Thomas Duffy**
Title:	President
Years with firm:	Eleven
Education:	Bachelors of Arts, St. Bonaventure University, Olean, New York
Certifications:	Lead Inspector New York State Department of Labor Asbestos Project Monitor, Inspector and Air Sampling Technician Steel Structures Painting Council (SSPC) QP-1 Certified for removal of lead paint on complex steel structures ASTM Conference on Environmental Site Assessments for Property Transfer

Experience:

Mr. Duffy is currently the Executive Vice President of operations and is responsible for the oversight of all systems and operations, including research, development and implementation of such systems company-wide, as well as marketing and client retention in the Albany/Hudson Valley/NYC regions. Mr. Duffy's previous positions within LCS include Buffalo General Manager, Syracuse General Manager, and Regional Manager for Albany, Hudson Valley and New York City.

Mr. Duffy is a graduate of St. Bonaventure University with a Bachelors of Arts in Communications. Over the past eight years, Mr. Duffy has been involved in all aspects of environmental field projects throughout New York State.

He has provided services to clients including the closure of gasoline stations, closure of past industrial dumping grounds, Sewer System Evaluation Surveys, demolition and remediation projects, and soil and water sampling.

While with LCS, Mr. Duffy has conducted nearly 800 Phase I and Transaction Screen Environmental Site Assessments, and has participated as a team leader on asbestos inspections and lead-based paint surveys. In addition, he is knowledgeable in environmental laws.

Mr. Duffy has collected samples of water, soil, PCB's, asbestos and lead-based paint materials for analysis at independent laboratories. He is a skilled field technician and is well versed in the operation and use of HnU meters, PID and other air monitoring equipment.

Name:	**Alan P. Schenk**
Title:	Manager, Midwest Regions
Years with Firm:	Nine
Education:	Bachelors of Science degree in Environmental Studies, State University of New York at Buffalo, Buffalo, New York
Certifications:	New York State Department of Labor Asbestos Inspector ASTM Conference on Environmental Site Assessments for Property Transfer 40 Hour HAZWOPER RAD II Radiological Worker
Experience:	Mr. Schenk has recently been assigned as the Manager of the Midwest region for LCS. His responsibilities include business management and development, marketing, project budgeting, management of environmental technicians and the production of all reports for the Midwest Region. While with LCS, Mr. Schenk has conducted over 1,000 Phase I Environmental Site Assessments and 300 Phase II subsurface studies for municipal and private clients and financial institutions. Subsurface study experience includes soil and groundwater investigations, remedial work, geophysical surveys utilizing magnetometer and ground penetrating radar. This includes site inspections, data collection and analysis and interpretation, report preparation and writing. Mr. Schenk has been involved in the inspection of over 500,000 square feet of building space for asbestos materials. He also performs report writing for various environmental testing situations as well as produces CAD drawings for the reports. In addition, Mr. Schenk is also responsible for coordinating of field operations with clients and utility companies. Mr. Schenk is well versed in all aspects of fieldwork generally consisting of: sampling various media (groundwater, soil, surface water, air, etc.); logging soil borings; completing field paperwork and documenting activities on-site; directing subcontractors, interacting with client representatives and regulatory agencies; and, communicating with project managers and other project related personnel.

Name:	**Megan E. Kahabka**
Title:	Environmental Technician
Years with Firm:	Three
Education:	Bachelors of Science in Environmental Science, St. Bonaventure University, Olean, New York (2002)

Experience:

Currently, Ms. Kahabka is an Environmental Technician working in the Corporate Office of LCS, primarily assigned as a preparer of all aspects of Transaction Screens and Phase I Environmental Site Assessments, including site reconnaissance, data collection and review, and writing reports. While at LCS, Ms. Kahabka has completed over 900 Transaction Screen and Phase I Environmental Site Assessments. Ms. Kahabka additionally performs duties as a technical report preparation/writer of EAQuick, Transaction Screen, and Phase I Environmental Site Assessments.

While studying at St. Bonaventure University, Ms. Kahabka participated in two Wastewater Treatment Plant internships at the Brocton, NY and Olean, NY Wastewater Treatment Plants. She was involved in a re-circulation study at the Brocton plant to determine whether to re-circulate 60% of the plant's water in order to raise dissolved oxygen levels before releasing the water back into the environment. At the conclusion of these internships, a comparison of the two plants was presented to department heads and fellow students as part of her senior project. Both internships required daily tests of dissolved oxygen measurements, pH measurements, chlorine detection, and ammonia detection as well as tasks such as cleaning digester heads, weekly testing of effluent and influent, and operating the sludge press. Megan also has experience as a HAZMAT officer in the U.S. Army, requiring her to insure that warehouses and motorpool facilities were storing materials according to state and Army regulations.

Name:	**Christopher Kibler**
Title:	Environmental Analyst/Technician
Years with Firm:	Two
Education:	Bachelor of Arts in Physical Geography and Environmental Systems, State University of New York at Buffalo, Buffalo, New York

Experience:

Currently, Mr. Kibler is an Environmental Analyst/Technician working in the Corporate Office of LCS, primarily assigned as a technical report writer of EAQuick, Transaction Screen, and Phase I Environmental Site Assessments. Additionally, Mr. Kibler performs environmental site assessments for EAQuick, Transaction Screens and Phase I reports, which includes site surveillance, data collection, data review, report preparation and client interface. Furthermore, Mr. Kibler assists in the preparation of Phase II Environmental Site Assessment reports, which includes preparation of sublogs, analytical tables, site drawings and well construction diagrams.

While studying at the University at Buffalo, Mr. Kibler completed an internship at the Tifft Nature Preserve in Buffalo, New York. While there, he assisted in the planning and organization of major workshops for school districts relating to "Earth Day," "Ecology and the Earth" and "Environmental Sustainability." Additionally, Mr. Kibler contributed to the development of micro studies on environments such as landfills and marshes.

APPENDIX C

FIELD OPERATING PROCEDURES

(PROVIDED ELECTRONICALLY)

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

APPENDIX C

SUMMARY OF FIELD OPERATING PROCEDURES

Remedial Investigation Work Plan
154 South Ogden Street Site
Buffalo, New York

Benchmark FOP No.	Procedure
001.1	Abandonment of Borehole Procedures
002.0	Abandonment of Monitoring Wells Procedure
004.3	Ambient Air/Subslab Vapor Sample Collection Procedure
007.0	Calibration and Maintenance of Portable Dissolved Oxygen Meter
008.0	Calibration and Maintenance of Portable Field pH/Eh Meter
009.0	Calibration and Maintenance of Portable Field Turbidity Meter
011.0	Calibration and Maintenance of Portable Photoionization Detector
012.0	Calibration and Maintenance of Portable Specific Conductance Meter
013.0	Composite Sample Collection Procedure for Non-VOC analysis
015.0	Documentation Requirements for Drilling and Well Installation
017.0	Drill Site Selection Procedure
018.0	Drilling and Excavation Equipment Decontamination Procedures
021.0	Establishing Horizontal and Vertical Control
022.0	Groundwater Level Measurement
023.0	Groundwater Purging Procedures Prior to Sample Collection
024.0	Groundwater Sample Collection Procedures
026.1	Hollow Stem Auger (HSA) Drilling Procedures
031.1	Low Flow (Minimal Drawdown) Groundwater Purging & Sampling Procedure
032.1	Management of Investigation-Derived Waste (IDW)
033.0	Monitoring Well Construction for Hollow Stem Auger Boreholes
036.0	Monitoring Well Development Procedures
040.1	Non-Disposable and Non-Dedicated Sampling Equipment Decontamination
046.0	Sample Labeling, Storage and Shipment Procedures
047.0	Screening of Soil Samples for Organic Vapors During Drilling Activities
054.2	Soil Description Procedures Using The Visual-Manual Method
058.0	Split-Spoon Sampling Procedures
063.2	Surface and Subsurface Soil Sampling Procedures
065.1	Test Pit Excavation and Logging Procedures
073.2	Real-Time Air Monitoring During Intrusive Activities
076.0	"Before Going Into the Field" Procedure
078.0	Geoprobe Drilling Procedure
084.0	Calibration and Maintenance of Portable Particulate Meter
085.0	Field Quality Control Procedures

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FIELD OPERATING PROCEDURES

Abandonment of Borehole Procedures

FOP 001.1

ABANDONMENT OF BOREHOLE PROCEDURE

PURPOSE

Soil borings that are not completed as monitoring wells will be plugged by filling the holes with a cement/bentonite grout. Field staff will calculate the borehole volume and compare it to the final installed volume of grout to evaluate whether bridging or loss to the formation has occurred. These calculations and the actual volume placed will be noted on the Boring Log.

PROCEDURE

1. Determine most suitable seal materials. Grout specifications generally have mixture ratios as follows:

   Grout Slurry Composition (% Weight)

1.5 to 3.0%	-	Bentonite (Quick Gel)
40 to 60 %	-	Cement (Portland Type I)
40 to 60 %	-	Potable Water

2. Calculate the volume of the borehole base on the bit or auger head diameter plus 10% and determine the volume of grout to be emplaced. Generally, the total mixed volume is the borehole volume plus 20%.

3. Identify the equipment to be used for the preparation and mixing of the grout. Ensure the volume of the tanks to be used for mixing has been measured adequately. Document these volumes on the Well Abandonment/Decommissioning Log (sample attached).

4. Identify the source of the water to be used for the grout and determine its suitability for use. In particular, water with high sulfate, or chloride levels or heated water should not be used. These types of waters can cause operational difficulties or modify the set-up for the grout.

5. Identify the equipment to be used for emplacing the grout. Ensure that the pump to be used has adequate pressure to enable complete return to surface.

6. Identify the volumes to be pumped at each stage or in total if only one stage is to be used.

7. Prepare the borehole abandonment plan and discuss the plan and activities with the drilling contractor prior to beginning any mixing activities.

8. Begin mixing the grout to be emplaced.

9. Record the type and amount of materials used during the mixing operation. Ensure the ratios are within specifications tolerance.

10. Begin pumping the grout through the return line bypass system to confirm all pump and surface fittings are secure.

11. Initiate downhole pumping from the bottom of the borehole. Record the times and volumes emplaced on the Well Abandonment/Decommissioning Log (sample attached).

12. Document the return circulation of grout. This may be facilitated by using a colored dye or other tagging method if a mudded borehole condition exists prior to grout injection.

13. Identify what procedures will be used for grouting in the upper 3 feet. When casing exists in the borehole, decisions are required as to the timing for removal and final disposition of the casing. Generally, it will not be removed prior to grouting because of the potential for difficult access and loss of circulation in the upper soil or rock layers. Accordingly, when cement return is achieved at surface, the casing is commonly removed and the borehole is topped off with grout or soils. If casing removal is not possible or not desired, the casing left in place should be cut off at a depth of 5 feet or greater below ground surface. If casing is not present during grouting, the grout level in the borehole is topped off after the rods or tremie pipe is removed.

14. Clear and clean the surface near the borehole.

15. The uppermost five feet of the borehole at the land surface should be filled with material physically similar to the natural soils. The surface of the borehole should be restored to the condition of the area surrounding the borehole. For example, concrete or asphalt will be patched with concrete or asphalt of the same type and thickness, grassed areas will be seeded, and topsoil will be used in other areas. All solid waste materials generated during the decommissioning process must be disposed of properly.

16. A follow-up check at each site should be made within one week to 10 days of completion. It should be noted that on occasion, the grout and/or surface material may settle over several days. If settling occurs, additional material physically similar to surrounding materials (i.e., asphalt, concrete, or soil) must be used to match the existing grade.

17. Document borehole and/or well/piezometer decommissioning activities on a Well Abandonment/Decommissioning Log (sample attached).

ATTACHMENTS

Well Abandonment/Decommissioning Log (sample)

REFERENCES

ASTM D 5299: *Guide for Decommissioning of Ground Water Wells, Vadose Zone Monitoring Devices, Boreholes, and Other Devices for Environmental Activities.*

NYSDEC, July 1988, *Drilling and Monitoring Well Installation Guidance Manual.*

NYSDEC, November 2009, *CP-43: Groundwater Monitoring Well Decommissioning Policy.*

Driscoll, F.G., 1987, *Groundwater and Wells*, Johnson Division, St. Paul, Minnesota, 1089 p.

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

WELL ABANDONMENT/ DECOMMISSIONING LOG

PROJECT INFORMATION	WELL INFORMATION
Project Name:	WELL I.D.:
Client:	Stick-up (fags):
Project Job Number:	Total Depth (fbgs):
Date:	Screen Interval (fbgs):
Weather:	Well Material:
	Diameter (inches):
BM/TK Personnel:	
Drilling Company:	Drilling Company Personnel:
Drill Rig Type:	

DECOMMISSIONING PROCEDURES

Time	Description of Field Activities

SAMPLE

PREPARED BY: DATE:

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FIELD OPERATING PROCEDURES

Abandonment of Monitoring Wells Procedure

FOP 002.0

ABANDONMENT OF MONITORING WELLS PROCEDURE

PURPOSE

This guideline presents a method for the abandonment and decommissioning of wells that are no longer reliable as competent monitors of formation groundwater. Well abandonment and decommissioning is required in order to remove a potential pathway for the vertical migration of impacted groundwater and/or surface water.

PROCEDURE

1. Examine the existing well to be abandoned/decommissioned and review well construction detail information (if applicable) to determine well depth,, screened interval, diameter, material of composition and other construction details. Establish appropriate equipment requirements for removal of the well.

2. Determine the most suitable seal materials as discussed in the next section.

3. Attempt to remove the well using a drilling rig, by using the following procedures:
    - Attaching the winch line to the well to see if it can be removed by pulling;
    - Using the rig's hydraulics to advance casing incrementally;
    - If a cable tool rig is available, bump back the casing using the cathead and drive block.

3. Upon removal of the well, ream the borehole by advancing the augers approximately one foot beyond the total depth of the well. Rotate the augers at a speed sufficient to remove the construction materials (i.e., filter pack, bentonite seal, etc.) from the borehole annulus (if possible). Backfill the resulting borehole with cement/bentonite grout, by tremie method, to approximately one foot below ground surface. Fill the remaining borehole to match the existing grade elevation and material of construction (i.e., clean native soil, concrete or asphalt, as necessary). Go to Step 10.

4. If the well cannot be removed from the borehole over-drill the borehole and well to approximately two (2) feet below the well depth. Upon reaching the desired depth, remove the well from within the augers and go back to Step 3.

5. If the borehole cannot be reamed out using conventional drilling techniques (i.e., over-drilled), remove or puncture the base plate of the well screen using the drill rig and associated equipment by pounding with the drill rods. Upon filling the well with grout by tremie method, slowly pull the well from the ground surface to allow the grout to evacuate through the bottom of the well to fill the void space created by removal of the well casing. Continue adding grout mix to the well casing, as necessary, to fill the void space to approximately one foot below ground surface. Fill the remaining borehole to match the existing grade elevation and material of construction (i.e., clean native soil, concrete or asphalt, as necessary). Go to Step 10.

   If the driller is unsuccessful at removing or puncturing the base plate of the well due, in part, to well construction materials (i.e., stainless steel or black iron), go to Step 6.

6. Insert a tremie pipe down the well to the bottom and pump a cement/bentonite grout mixture to a depth one to two feet above the top of the screen.

7. Perform a hydraulic pressure test on the portion of the well casing above the grouted screen section. Allow the grout to set up for a period not less than 72 hours before pressure testing of the grouted interval. Place a pneumatic packer a maximum of 4.5 feet above the top of the slotted screen section of the well. The infiltration pressure applied to the packer shall not exceed the pressure rating of the well casing material. If the interval between the top of the grout and the bottom of the packer is not saturated, potable water will be used to fill the interval. A gauge pressure of 5 psig at the well head shall be applied to the interval for a period of 5 minutes to allow for temperature stabilization. After 5 minutes, the pressure will be maintained at 5 psig for 30 minutes. The grout seal shall be considered acceptable if the total loss of water to the seal does not exceed 0.5 gallons over a 30-minute period.

8. If the grout seal is determined to be unacceptable, tremie grout an additional 5 feet of well riser above the failing interval and retest as specified above (see Step 7).

9. If the grout seal is determined to be acceptable, tremie grout the remainder of the well until grout displaces all formation water and a grout return is visible in the well at the surface. Cut off well casing at a depth of five feet or greater below ground surface and backfill the remaining borehole to match the existing grade elevation and material of construction (i.e., clean native soil, concrete or asphalt, as necessary).

10. Record all well construction details and abandonment procedures on the **Well Abandonment/Decommissioning Log** (sample attached).

CEMENT/BENTONITE GROUT MIXTURE

The cement/bentonite grout mixture identified below is generally considered the most suitable seal material for monitoring well advancement and abandonment. Grout specifications generally have mixture ratios as follows:

Grout Slurry Composition (% Weight)

1.5 to 3.0% - Bentonite (Quick Gel)
40 to 60% - Cement (Portland Type I)
40 to 60% - Potable Water

MISCELLANEOUS

All removed well materials (PVC, stainless steel, steel pipe) should be decontaminated (if necessary) as per the project specific **Drilling and Excavation Equipment Decontamination FOP** and removed from the site. The project manager will determine the destination of final disposal for all well materials. All drill cuttings (depending on site protocol) should be placed in DOT-approved 55-gallon drums, labeled and sampled in

accordance with Benchmark's field operating procedure **Management of Investigation-Derived Waste** in order to determine proper removal and disposal procedures. The drilling subcontractor will provide any potable water utilized during this field activity from a known and reliable source (see Notes section).

ATTACHMENTS

Well Abandonment/Decommissioning Log (sample)

REFERENCES

New York State Department of Environmental Conservation, July 1988, *Drilling and Monitoring Well Installation Guidance Manual.*

Driscoll, F.G., 1987, *Groundwater and Wells*, Johnson Division, St. Paul, Minnesota, p. 1089.

Benchmark FOPs:

018 Drilling/Excavation Equipment Decontamination Protocols
032 Management of Investigation-Derived Waste

NOTES

Tap water may be used from any municipal water treatment system. The use of an untreated potable water supply is not an acceptable substitute.

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

WELL ABANDONMENT / DECOMMISSIONING LOG

PROJECT INFORMATION	WELL INFORMATION
Project Name:	WELL I.D.:
Client:	Stick-up (fags):
Project Job Number:	Total Depth (fbgs):
Date:	Screen Interval (fbgs):
Weather:	Well Material:
	Diameter (inches):
BM/TK Personnel:	
Drilling Company:	Drilling Company Pers l:
Drill Rig Type:	

DECOMMISSIONING PROCE ES

Time	Description of Field Activiti

SAMPLE

BENCHMARK
ENVIRONMENTAL
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FIELD OPERATING PROCEDURES

Abandonment of Monitoring Wells Procedure

FOP 002.0

ABANDONMENT OF MONITORING WELLS PROCEDURE

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40 to 60% - Potable Water

MISCELLANEOUS

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accordance with Benchmark's field operating procedure **Management of Investigation-Derived Waste** in order to determine proper removal and disposal procedures. The drilling subcontractor will provide any potable water utilized during this field activity from a known and reliable source (see Notes section).

ATTACHMENTS

Well Abandonment/Decommissioning Log (sample)

REFERENCES

New York State Department of Environmental Conservation, July 1988, *Drilling and Monitoring Well Installation Guidance Manual.*

Driscoll, F.G., 1987, *Groundwater and Wells*, Johnson Division, St. Paul, Minnesota, p. 1089.

Benchmark FOPs:

018 Drilling/Excavation Equipment Decontamination Protocols
032 Management of Investigation-Derived Waste

NOTES

Tap water may be used from any municipal water treatment system. The use of an untreated potable water supply is not an acceptable substitute.

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

WELL ABANDONMENT / DECOMMISSIONING LOG

PROJECT INFORMATION	WELL INFORMATION
Project Name:	WELL I.D.:
Client:	Stick-up (fags):
Project Job Number:	Total Depth (fbgs):
Date:	Screen Interval (fbgs):
Weather:	Well Material:
	Diameter (inches):
BM/TK Personnel:	
Drilling Company:	Drilling Company Pers l:
Drill Rig Type:	

DECOMMISSIONING PROCE ES

Time	Description of Field Activiti

SAMPLE

BENCHMARK
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FIELD OPERATING PROCEDURES

Calibration and Maintenance of Portable Dissolved Oxygen Meter

FOP 007.0

CALIBRATION AND MAINTENANCE OF PORTABLE DISSOLVED OXYGEN METER

PURPOSE

This guideline describes a method for calibration of a portable dissolved oxygen meter. This meter measures the concentration of dissolved oxygen within a water sample. This parameter is of interest both as a general indicator of water quality, and because of its pertinence to fate and transport of organics and inorganics. This guideline presents a method for calibration of this meter, which is performed to verify instrument accuracy and function. All field instruments will be calibrated, verified and recalibrated at frequencies required by their respective operating manuals or manufacturer's specifications, but not less than once each day that the instrument is in use. Field personnel should have access to all operating manuals for the instruments used for the field measurements. This procedure also documents critical maintenance activities for this meter.

ACCURACY

The calibrated accuracy of the dissolved oxygen meter will be within ± 1% of full-scale over the temperature range of 23° to 113° F (-5° to +45° C).

PROCEDURE

1. Calibrate the dissolved oxygen meter to ambient air based on probe temperature and true local atmospheric pressure conditions (or feet above sea level). Because procedures vary with different brands and models of meters, refer to the manufacturer's recommended calibration procedures.

2. In the event of a failure to adequately calibrate, follow the corrective action directed by the manufacturer.
3. If calibration cannot be achieved or maintained, obtain a replacement instrument (rental instruments) and/or order necessary repairs/adjustment.

4. Document the calibration results and related information in the Project Field Book and on an **Equipment Calibration Log** (see attached sample). Information will include, at a minimum:
    - Time, date, and initials of the field team member performing the calibration
    - The unique identifier for the meter, including manufacturer, model, and serial number
    - The brand and expiration dates of calibration solutions
    - The calibration readings
    - The instrument settings (if applicable)
    - The approximate response time
    - The overall adequacy of calibration including the Pass or fail designation in accordance with the accuracy specifications presented above
    - Corrective action taken (see Step 5 above) in the event of failure to adequately calibrate

MAINTENANCE

- When not in use or between measurements, the dissolved oxygen probe will be kept immersed in or moist with deionized water.

- The meter batteries will be checked prior to each meter's use and will be replaced when the meter cannot be redline adjusted.

- The meter response time and stability will be tracked to determine the need for instrument maintenance. When response time becomes greater than two minutes, probe service is indicated.

ATTACHMENTS

Equipment Calibration Log (sample)

FOP 007.0

CALIBRATION AND MAINTENANCE OF PORTABLE DISSOLVED OXYGEN METER

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

EQUIPMENT CALIBRATION

PROJECT INFORMATION:

Project Name: Date:

Project No.:

Client: Instrument Source: ☐ BM ☐ Rental

METER TYPE	UNITS	TIME	MAKE/MODEL	SERIAL NUMBER	CAL. BY	STANDARD	READING	SETTI
☐ pH meter	units		Myron L Company Ultra Meter 6P	606987		4.00		
						7.00		
						10.01		
☐ Turbidity meter	NTU		Hach 2100P Turbidimeter	970600014560		< 0.4		
						20		
						100		
						800		
☐ Sp. conductance meter	uS/mS		Myron L Company Ultra Meter 6P	606987		µS @ 25 °C		
☐ PID	ppm		Photovac 2020 PID			open air zero		MIBK re
						____ ppm Iso. Gas		factor =
☐ Particulate meter	mg/m^3					zero air		
☐ Oxygen	%					open air		
☐ Hydrogen sulfide	ppm					open air		
☐ Carbon monoxide	ppm					open air		
☐ LEL	%					open air		
☐ Radiation Meter	uR/h					background area		
☐								

SAMPLE

ADDITIONAL REMARKS:

PREPARED BY: **DATE:**

BENCHMARK
ENVIRONMENTAL
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FIELD OPERATING PROCEDURES

Calibration and Maintenance of Portable Field pH/Eh Meter

FOP 008.0

CALIBRATION AND MAINTENANCE OF PORTABLE FIELD pH/Eh METER

PURPOSE

This guideline describes a method for calibration of a portable pH/Eh meter. The pH/Eh meter measures the hydrogen ion concentration or acidity of a water sample (pH function), and the oxidation/reduction potential of a water sample (Eh function). Calibration is performed to verify instrument accuracy and function. All field instruments will be calibrated, verified and recalibrated at frequencies required by their respective operating manuals or manufacturer's specifications, but not less than once each day that the instrument is in use. Field personnel should have access to all operating manuals for the instruments used for the field measurements. This procedure also documents critical maintenance activities for this meter.

ACCURACY

The calibrated accuracy of the pH/Eh meter will be:

pH ± 0.2 pH unit, over the temperature range of ± 0.2 C.

Eh ± 0.2 millivolts (mV) over the range of ± 399.9 mV, otherwise ± 2 mV.

PROCEDURE

Note: Meters produced by different manufacturers may have different calibration procedures. These instructions will take precedence over the procedure provided herein. This procedure is intended to be used as a general guideline, or in the absence of available manufacturer's instructions.

1. Obtain and active the meter to be used. As stated above, initial calibrations will be performed at the beginning of each sampling day.

2. Immerse the sensing probe in a container of certified pH 7.0 buffer solution traceable to the National Bureau of Standards.

3. Measure the temperature of the buffer solution, and adjust the temperature setting accordingly.

4. Compare the meter reading to the known value of the buffer solution while stirring. If the reading obtained by the meter does not agree with the known value of the buffer solution, recalibrate the meter according to the manufacturer's instructions until the desired reading is obtained. This typically involves accessing and turning a dial or adjustment screw while measuring the pH of the buffer solution. The meter is adjusted until the output agrees with the known solution pH.

5. Repeat Steps 2 through 5 with a pH 4.0 and 10.0 buffer solution to provide a three-point calibration. Standards used to calibrate the pH meter will be of concentrations that bracket the expected values of the samples to be analyzed, especially for two-point calibrations (see note below).

Note: Some pH meters only allow two-point calibrations. Two-point calibrations should be within the suspected range of the groundwater to be analyzed. For example, if the groundwater pH is expected to be approximately 8, the two-point calibration should bracket that value. Buffer solutions of 7 and 10 should then be used for the two-point calibration.

6. Document the calibration results and related information in the Project Field Book and on an **Equipment Calibration Log** (see attached sample). Information will include, at a minimum:

   - Time, date, and initials of the field team member performing the calibration
   - The unique identifier for the meter, including manufacturer, model, and serial number
   - The brand and expiration dates of buffer solutions
   - The instrument readings
   - The instrument settings (if applicable)

- Pass or fail designation in accordance with the accuracy specifications presented above
- Corrective action taken (see Maintenance below) in the event of failure to adequately calibrate

MAINTENANCE

- When not in use, or between measurements, keep the pH/Eh probe immersed in or moist with buffer solutions.

- Check the meter batteries at the end of each day and recharge or replace as needed.

- Replace the pH/Eh probe any time that the meter response time becomes greater than two minutes or the meeting system consistently fails to retain its calibrated accuracy for a minimum of ten sample measurements.

- If a replacement of the pH/Eh probe fails to resolve instrument response time and stability problems, obtain a replacement instrument (rental instruments) and/or order necessary repairs/adjustment.

ATTACHMENTS

Equipment Calibration Log (sample)

FOP 008.0

CALIBRATION AND MAINTENANCE OF PORTABLE FIELD pH/Eh METER

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

EQUIPMENT CALIBRATION

PROJECT INFORMATION:

Project Name: Date:

Project No.:

Client: Instrument Source: ☐ BM ☐ Rental

METER TYPE	UNITS	TIME	MAKE/MODEL	SERIAL NUMBER	CAL. BY	STANDARD	READING	SETTI
☐ pH meter	units		Myron L Company Ultra Meter 6P	606987		4.00		
						7.00		
						10.01		
☐ Turbidity meter	NTU		Hach 2100P Turbidimeter	970600014560		< 0.4		
						20		
						100		
						800		
☐ Sp. conductance meter	uS/mS		Myron L Company Ultra Meter 6P	606987		µS @ 25 °C		
☐ PID	ppm		Photovac 2020 PID			open air zero		MIBK re
						____ ppm Iso. Gas		factor =
☐ Particulate meter	mg/m^3					zero air		
☐ Oxygen	%					open air		
☐ Hydrogen sulfide	ppm					open air		
☐ Carbon monoxide	ppm					open air		
☐ LEL	%					open air		
☐ Radiation Meter	uR/h					background area		
☐								

SAMPLE

ADDITIONAL REMARKS:

PREPARED BY: **DATE:**

BENCHMARK
ENVIRONMENTAL
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SCIENCE, PLLC

FIELD OPERATING PROCEDURES

Calibration and Maintenance of Portable Field Turbidity Meter

FOP 009.0

CALIBRATION AND MAINTENANCE OF PORTABLE FIELD TURBIDITY METER

PURPOSE

This guideline describes the method for calibration of the HACH 2100P portable field turbidity meter. Turbidity is one water quality parameter measured during purging and development of wells. Turbidity is measured as a function of the samples ability to transmit light, expressed as Nephelometric Turbidity Units (NTUs). The turbidity meter is factory calibrated and must be checked daily prior to using the meter in the field. Calibration is performed to verify instrument accuracy and function. This procedure also documents critical maintenance activities for this meter.

ACCURACY

Accuracy shall be ± 2% of reading below 499 NTU or ± 3% of reading above 500 NTU with resolution to 0.01 NTU in the lowest range. The range key provides for automatic or manual range selection for ranges of 0.00 to 9.99, 0.0 to 99.9 and 0 to 1000 NTU. Another key provides for selecting automatic signal averaging. Pressing the key shall toggle signal averaging on or off.

PROCEDURE

Calibration of the 2100P Turbidimeter is based on formazin, the primary standard for turbidity. The instrument's electronic and optical design provides long-term stability and minimizes the need for frequent calibration. The two-detector ratioing system compensates for most fluctuations in lamp output. **A formazin recalibration should be performed at least once every three months,** more often if experience indicates the need. During calibration, use a primary standard such as StablCal™ Stabilized Standards or formazin standards.

Note: Meters produced by different manufacturers may have different calibration check procedures. These manufacturers' instructions will take precedence over the procedure provided here. This procedure is intended to be used as a general guideline, or in the absence of available manufacturer's instructions.

Note: Because the turbidity meter measures light transmission, it is critical that the meter and standards be cared for as precision optical instruments. Scratches, dirt, dust, etc. can all temporarily or permanently affect the accuracy of meter readings.

Preparing StablCal Stabilized Standards in Sealed Vials

Sealed vials that have been sitting undisturbed for longer than a month must be shaken to break the condensed suspension into its original particle size. Start at *step 1* for these standards. If the standards are used on at least a weekly interval, start at *step 3*.

Note: These instructions do not apply to < 0.1 NTU StablCal Standards; < 0.1 NTU StablCal Standards should not be shaken or inverted.

1. Shake the standard vigorously for 2-3 minutes to re-suspend any particles.
2. Allow the standard to stand undisturbed for 5 minutes.
3. Gently invert the vial of StablCal 5 to 7 times.
4. Prepare the vial for measurement using traditional preparation techniques. This usually consists of oiling the vial (see *Section 2.3.2 on page 11 of the manual*)

and marking the vial to maintain the same orientation in the sample cell compartment (see *Section 2.3.3 on page 12 of the manual*). This step will eliminate any optical variations in the sample vial.

5. Let the vial stand for one minute. The standard is now ready for use in the calibration procedure.

Calibration Procedure

1. Turn the meter on.

2. Shake pre-mixed formazin primary standards in accordance with the above procedure.

3. Wipe the outside of the < 0.1 NTU standard and insert the sample cell in the cell compartment by aligning the orientation mark on the cell with the mark on the front of the cell compartment.

4. Close the lid and press **I/O**.

5. Press the **CAL** button. The **CAL** and **S0** icons will be displayed and the 0 will flash. The four-digit display will show the value of the **S0** standard for the previous calibration. If the blank value was forced to 0.0, the display will be blank. Press the right arrow key (→) to get a numerical display.

6. Press **READ**. The instrument will count from 60 to 0, read the blank and use it to calculate a correction factor for the 20 NTU standard measurement. If the dilution water is ≥ 0.5 NTU, E 1 will appear when the calibration is calculated (*see Section 3.6.2.3 on page 31 of the manual*). The display will automatically increment to the next standard. Remove the sample cell from the cell compartment

Note: The turbidity of the dilution water can be "forced" to zero by pressing → rather than reading the dilution water. The display will show "S0 NTU" and the ↑ key must be pressed to continue with the next standard.

7. Repeat steps 1 through 7 for the 20, 100 and 800 standards.

8. Following the 800 NTU standard calibration, the display will increment back to the **S0** display. Remove the sample cell from the cell compartment.

9. Press **CAL** to accept the calibration. The instrument will return to measurement mode automatically.

10. Document the calibration results and related information in the Project Field Book and on an **Equipment Calibration Log** (see attached sample). Information will include, at a minimum:
    - Time, date, and initials of the field team member performing the calibration
    - The unique identifier for the meter, including manufacturer, model, and serial number
    - The brand of calibration standards
    - The instrument readings
    - The instrument settings (if applicable)
    - Pass or fail designation in accordance with the accuracy specifications presented above
    - Corrective action taken (see Maintenance below) in the event of failure to adequately calibrate.

Note: Pressing CAL completes the calculation of the calibration coefficients. If calibration errors occurred during calibration, error messages will appear after CAL is pressed. If E 1 or E 2 appear, check the standard preparation and review the calibration; repeat the calibration if necessary. If "CAL?" appears, an error may have

occurred during calibration. If "CAL?" is flashing, the instrument is using the default calibration.

NOTES

- If the **I/O** key is pressed during calibration, the new calibration data is lost and the old calibration will be used for measurements. Once in calibration mode, only the **READ, I/O,** ↑ , and →keys function. Signal averaging and range mode must be selected before entering the calibration mode.

- If **E 1** or **E 2** are displayed, an error occurred during calibration. Check the standard preparation and review the calibration; repeat the calibration if necessary. Press **DIAG** to cancel the error message (**E 1** or **E 2)**. To continue without repeating the calibration, press **I/O** twice to restore the previous calibration. If "**CAL?"** is displayed, an error may have occurred during calibration. The previous calibration may not be restored. Either recalibrate or use the calibration as is.

- To review a calibration, press **CAL** and then ↑ to view the calibration standard values. As long as **READ** is never pressed and **CAL** is not flashing, the calibration will not be updated. Press **CAL** again to return to the measurement mode.

MAINTENANCE

- **Cleaning**: Keep the turbidimeter and accessories as clean as possible and store the instrument in the carrying case when not in use. Avoid prolonged exposure to sunlight and ultraviolet light. Wipe spills up promptly. Wash sample cells with non-abrasive laboratory detergent, rinse with distilled or demineralized water, and air dry. Avoid scratching the cells and wipe all moisture and fingerprints off the cells before inserting them into the instrument. Failure to do so can give inaccurate readings. See *Section 2.3.1 on page 11of the manual* for more information about sample cell care.

- **Battery Replacement**: AA alkaline cells typically last for about 300 tests with the signal-averaging mode off, about 180 tests if signal averaging is used. The "battery" icon flashes when battery replacement is needed. Refer to *Section 1.4.2 on page 5 of the manual* for battery installation instructions. If the batteries are changed within 30

seconds, the instrument retains the latest range and signal average selections. If it takes more than 30 seconds, the instrument uses the default settings. If, after changing batteries, the instrument will not turn off or on and the batteries are good, remove the batteries and reinstall them. If the instrument still won't function, contact Hach Service or the nearest authorized dealer.

- **Lamp Replacement**: The procedure in *Section 4.0 on page 49 of the manual* explains lamp installation and electrical connections. Use a small screwdriver to remove and install the lamp leads in the terminal block. The instrument requires calibration after lamp replacement.

ATTACHMENTS

Equipment Calibration Log (sample)

FOP 009.0

CALIBRATION AND MAINTENANCE OF PORTABLE FIELD TURBIDITY METER

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

EQUIPMENT CALIBRATION

PROJECT INFORMATION:

Project Name: Date:

Project No.:

Client: Instrument Source: ☐ BM ☐ Rental

METER TYPE	UNITS	TIME	MAKE/MODEL	SERIAL NUMBER	CAL. BY	STANDARD	READING	SETTI
☐ pH meter	units		Myron L Company Ultra Meter 6P	606987		4.00		
						7.00		
						10.01		
☐ Turbidity meter	NTU		Hach 2100P Turbidimeter	970600014560		< 0.4		
						20		
						100		
						800		
☐ Sp. conductance meter	uS/mS		Myron L Company Ultra Meter 6P	606987		µS @ 25 °C		
☐ PID	ppm		Photovac 2020 PID			open air zero		MIBK re
						____ ppm Iso. Gas		factor =
☐ Particulate meter	mg/m^3					zero air		
☐ Oxygen	%					open air		
☐ Hydrogen sulfide	ppm					open air		
☐ Carbon monoxide	ppm					open air		
☐ LEL	%					open air		
☐ Radiation Meter	uR/h					background area		
☐								

SAMPLE

ADDITIONAL REMARKS:

PREPARED BY: **DATE:**

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

FIELD OPERATING PROCEDURES

Calibration and Maintenance of Portable Photoionization Detector (PID)

FOP 011.0

CALIBRATION AND MAINTENANCE OF PORTABLE PHOTOIONIZATION DETECTOR

PURPOSE

This procedure describes a general method for the calibration and maintenance of a portable photoionization detector (PID). The PID detects and initially quantifies a reading of the volatile organic compound (VOC) concentration in air. The PID is used as a field-screening tool for initial evaluation of soil samples and for ambient air monitoring of compounds with ionization potentials (IP) less than the PID lamp electron voltage (eV) rating. The IP is the amount of energy required to move an electron to an infinite distance from the nucleus thus creating a positive ion plus an electron. It should be noted that all of the major components of air (i.e., carbon dioxide, methane, nitrogen, oxygen etc.) have IP's above 12 eV. As a result, they will not be ionized by the 9.5, 10.2, 10.6 or 11.7 eV lamps typically utilized in field PIDs. The response of the PID will then be the sum of the organic and inorganic compounds in air that are ionized by the appropriate lamp (i.e., 9.5, 10.2, 10.6 or 11.7 eV). Attached to this FOP is a table summarizing common organic compounds and their respective IPs.

Calibration is performed to verify instrument accuracy and function. All field instruments will be calibrated, verified and recalibrated at frequencies required by their respective operating manuals or manufacturer's specifications, but not less than once each day that the instrument is in use. Field personnel should have access to all operating manuals for the instruments used for the field measurements. This procedure also documents critical maintenance activities for this meter.

Note: The information included below is equipment manufacturer- and model-specific, however, accuracy, calibration, and maintenance procedures for this type of portable

equipment are typically similar. The information below pertains to the Photovac 2020 photoionization detector equipped with a 10.6 eV lamp. The actual equipment to be used in the field will be equivalent or similar. The previously mentioned attached table indicates the compounds that cannot be detected by a standard 10.6 eV lamp.

Note: The PID indicates total VOC concentration readings that are normalized to an isobutylene standard, so actual quantification of individual compounds is not provided. In addition, the PID response to compounds is highly variable, dependent on ionization potential of the compound, and the presence or absence of other compounds.

ACCURACY

The Photovac 2020 is temperature compensated so that a 20 ºC change in temperature corresponds to a change in reading of less than two percent full-scale at maximum sensitivity. The useful range of the instrument is from 0.5 – 2000 ppm isobutylene with an accuracy of ± 10% or ± 2 ppm. Response time is less than three seconds to 90 percent of full-scale. The operating temperature range is 0 to 40º C and the operating humidity range is 0 to 100 % relative humidity (non-condensing).

PROCEDURE

1. Calibrate all field test equipment at the beginning of each sampling day. Check and recalibrate the PID according to the manufacture's specifications.

2. Calibrate the PID meter using a compressed gas cylinder containing a 100-ppm isobutylene standard, a flow regulator, and a tubing assembly. In

addition, a compressed gas cylinder containing zero air ("clean" air) may be required if ambient air conditions do not permit calibration to "clean air".

3. Fill two Tedlar bags equipped with a one-way valve with zero-air (if applicable) and 100-ppm isobutylene gas.

4. Assemble the calibration equipment and actuate the PID in its calibration mode. Connect the PID probe to the zero air calibration bag (or calibrate to ambient air if conditions permit) and wait for a stable indication.

5. Change the response factor of the PID to the Methyl Isobutyl Ketone (MIBK) setting, which is a response factor of 1.0 for the Photovac 2020.

6. Connect the PID probe to the 100-ppm isobutylene standard calibration bag. Measure an initial reading of the isobutylene standard and wait for a stable indication.

7. Keep the PID probe connected to the 100-ppm isobutylene standard calibration bag, calibrate to 100-ppm with the isobutylene standard and wait for a stable indication.

8. Document the calibration results and related information in the Project Field Book and on an **Equipment Calibration Log** (see attached sample), indicating the meter readings before and after the instrument has been adjusted. This is important, not only for data validation, but also to establish maintenance schedules and component replacement. Information will include, at a minimum:
    - Time, date and initials of the field team member performing the calibration
    - The unique identifier for the meter, including manufacturer, model, and serial number
    - The brand and expiration date of the isobutylene gas
    - The instrument readings: before and after calibration
    - The instrument settings (if applicable)

- Pass or fail designation in accordance with the accuracy specifications presented above
- Corrective action taken (see Maintenance below) in the event of failure to adequately calibrate.

MAINTENANCE

- The probe and dust filter of the PID should be checked before and after every use for cleanliness. Should instrument response become unstable, recalibration should be performed. If this does not resolve the problem, access the photoionization bulb and clean with the manufacturer-supplied abrasive compound, then recalibrate.

- The PID battery must be recharged after each use. Store the PID in its carrying case when not in use. Additional maintenance details related to individual components of the PID are provided in the equipment manufacturer's instruction manual. If calibration or instrument performance is not in accordance with specifications, send the instrument to the equipment manufacturer for repair.

- Maintain a log for each monitoring instrument. Record all maintenance performed on the instrument on this log with date and name of the organization performing the maintenance.

ATTACHMENTS

Table 1; Summary of Ionization Potentials
Equipment Calibration Log (sample)

TABLE 1

SUMMARY OF IONIZATION POTENTIALS

Chemical Name	Ionization Potential (eV)	Cannot be Read by 10.6 eV PID
A		
2-Amino pyridine	8	
Acetaldehyde	10.21	
Acetamide	9.77	
Acetic acid	10.69	X
Acetic anhydride	10	
Acetone	9.69	
Acetonitrile	12.2	X
Acetophenone	9.27	
Acetyl bromide	10.55	
Acetyl chloride	11.02	X
Acetylene	11.41	X
Acrolein	10.1	
Acrylamide	9.5	
Acrylonitrile	10.91	X
Allyl alcohol	9.67	
Allyl chloride	9.9	
Ammonia	10.2	
Aniline	7.7	
Anisidine	7.44	
Anisole	8.22	
Arsine	9.89	
B		
1,3-Butadiene (butadiene)	9.07	
1-Bromo-2-chloroethane	10.63	X
1-Bromo-2-methylpropane	10.09	
1-Bromo-4-fluorobenzene	8.99	
1-Bromobutane	10.13	
1-Bromopentane	10.1	
1-Bromopropane	10.18	
1-Bromopropene	9.3	
1-Butanethiol	9.14	
1-Butene	9.58	
1-Butyne	10.18	
2,3-Butadione	9.23	
2-Bromo-2-methylpropane	9.89	
2-Bromobutane	9.98	
2-Bromopropane	10.08	

TABLE 1

SUMMARY OF IONIZATION POTENTIALS

Chemical Name	Ionization Potential (eV)	Cannot be Read by 10.6 eV PID
2-Bromothiophene	8.63	
2-Butanone (MEK)	9.54	
3-Bromopropene	9.7	
3-Butene nitrile	10.39	
Benzaldehyde	9.53	
Benzene	9.25	
Benzenethiol	8.33	
Benzonitrile	9.71	
Benzotrifluoride	9.68	
Biphenyl	8.27	
Boron oxide	13.5	X
Boron trifluoride	15.56	X
Bromine	10.54	
Bromobenzene	8.98	
Bromochloromethane	10.77	X
Bromoform	10.48	
Butane	10.63	X
Butyl mercaptan	9.15	
cis-2-Butene	9.13	
m-Bromotoluene	8.81	
n-Butyl acetate	10.01	
n-Butyl alcohol	10.04	
n-Butyl amine	8.71	
n-Butyl benzene	8.69	
n-Butyl formate	10.5	
n-Butyraldehyde	9.86	
n-Butyric acid	10.16	
n-Butyronitrile	11.67	X
o-Bromotoluene	8.79	
p-Bromotoluene	8.67	
p-tert-Butyltoluene	8.28	
s-Butyl amine	8.7	
s-Butyl benzene	8.68	
sec-Butyl acetate	9.91	
t-Butyl amine	8.64	
t-Butyl benzene	8.68	
trans-2-Butene	9.13	
C		

TABLE 1

SUMMARY OF IONIZATION POTENTIALS

Chemical Name	Ionization Potential (eV)	Cannot be Read by 10.6 eV PID
1-Chloro-2-methylpropane	10.66	X
1-Chloro-3-fluorobenzene	9.21	
1-Chlorobutane	10.67	X
1-Chloropropane	10.82	X
2-Chloro-2-methylpropane	10.61	X
2-Chlorobutane	10.65	X
2-Chloropropane	10.78	X
2-Chlorothiophene	8.68	
3-Chloropropene	10.04	
Camphor	8.76	
Carbon dioxide	13.79	X
Carbon disulfide	10.07	
Carbon monoxide	14.01	X
Carbon tetrachloride	11.47	X
Chlorine	11.48	X
Chlorine dioxide	10.36	
Chlorine trifluoride	12.65	X
Chloroacetaldehyde	10.61	X
α -Chloroacetophenone	9.44	
Chlorobenzene	9.07	
Chlorobromomethane	10.77	X
Chlorofluoromethane (Freon 22)	12.45	X
Chloroform	11.37	X
Chlorotrifluoromethane (Freon 13)	12.91	X
Chrysene	7.59	
Cresol	8.14	
Crotonaldehyde	9.73	
Cumene (isopropyl benzene)	8.75	
Cyanogen	13.8	X
Cyclohexane	9.8	
Cyclohexanol	9.75	
Cyclohexanone	9.14	
Cyclohexene	8.95	
Cyclo-octatetraene	7.99	
Cyclopentadiene	8.56	
Cyclopentane	10.53	
Cyclopentanone	9.26	
Cyclopentene	9.01	

TABLE 1

SUMMARY OF IONIZATION POTENTIALS

Chemical Name	Ionization Potential (eV)	Cannot be Read by 10.6 eV PID
Cyclopropane	10.06	
m-Chlorotoluene	8.83	
o-Chlorotoluene	8.83	
p-Chlorotoluene	8.7	
D		
1,1-Dibromoethane	10.19	
1,1-Dichloroethane	11.12	X
1,1-Dimethoxyethane	9.65	
1,1-Dimethylhydrazine	7.28	
1,2-Dibromoethene	9.45	
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	12.2	X
1,2-Dichloroethane	11.12	X
1,2-Dichloropropane	10.87	X
1,3-Dibromopropane	10.07	
1,3-Dichloropropane	10.85	X
2,2-Dimethyl butane	10.06	
2,2-Dimethyl propane	10.35	
2,3-Dichloropropene	9.82	
2,3-Dimethyl butane	10.02	
3,3-Dimethyl butanone	9.17	
cis-Dichloroethene	9.65	
Decaborane	9.88	
Diazomethane	9	
Diborane	12	X
Dibromochloromethane	10.59	
Dibromodifluoromethane	11.07	X
Dibromomethane	10.49	
Dibutylamine	7.69	
Dichlorodifluoromethane (Freon 12)	12.31	X
Dichlorofluoromethane	12.39	X
Dichloromethane	11.35	X
Diethoxymethane	9.7	
Diethyl amine	8.01	
Diethyl ether	9.53	
Diethyl ketone	9.32	
Diethyl sulfide	8.43	
Diethyl sulfite	9.68	
Difluorodibromomethane	11.07	X

TABLE 1

SUMMARY OF IONIZATION POTENTIALS

Chemical Name	Ionization Potential (eV)	Cannot be Read by 10.6 eV PID
Dihydropyran	8.34	
Diiodomethane	9.34	
Diisopropylamine	7.73	
Dimethoxymethane (methylal)	10	
Dimethyl amine	8.24	
Dimethyl ether	10	
Dimethyl sulfide	8.69	
Dimethylaniline	7.13	
Dimethylformamide	9.18	
Dimethylphthalate	9.64	
Dinitrobenzene	10.71	X
Dioxane	9.19	
Diphenyl	7.95	
Dipropyl amine	7.84	
Dipropyl sulfide	8.3	
Durene	8.03	
m-Dichlorobenzene	9.12	
N,N-Diethyl acetamide	8.6	
N,N-Diethyl formamide	8.89	
N,N-Dimethyl acetamide	8.81	
N,N-Dimethyl formamide	9.12	
o-Dichlorobenzene	9.06	
p-Dichlorobenzene	8.95	
p-Dioxane	9.13	
trans-Dichloroethene	9.66	
E		
Epichlorohydrin	10.2	
Ethane	11.65	X
Ethanethiol (ethyl mercaptan)	9.29	
Ethanolamine	8.96	
Ethene	10.52	
Ethyl acetate	10.11	
Ethyl alcohol	10.48	
Ethyl amine	8.86	
Ethyl benzene	8.76	
Ethyl bromide	10.29	
Ethyl chloride (chloroethane)	10.98	X
Ethyl disulfide	8.27	

TABLE 1

SUMMARY OF IONIZATION POTENTIALS

Chemical Name	Ionization Potential (eV)	Cannot be Read by 10.6 eV PID
Ethyl ether	9.51	
Ethyl formate	10.61	X
Ethyl iodide	9.33	
Ethyl isothiocyanate	9.14	
Ethyl mercaptan	9.29	
Ethyl methyl sulfide	8.55	
Ethyl nitrate	11.22	X
Ethyl propionate	10	
Ethyl thiocyanate	9.89	
Ethylene chlorohydrin	10.52	
Ethylene diamine	8.6	
Ethylene dibromide	10.37	
Ethylene dichloride	11.05	X
Ethylene oxide	10.57	
Ethylenelmine	9.2	
Ethynylbenzene	8.82	
F		
2-Furaldehyde	9.21	
Fluorine	15.7	X
Fluorobenzene	9.2	
Formaldehyde	10.87	X
Formamide	10.25	
Formic acid	11.05	X
Freon 11 (trichlorofluoromethane)	11.77	X
Freon 112 (1,1,2,2-tetrachloro-1,2-difluoroethane)	11.3	X
Freon 113 (1,1,2-trichloro-1,2,2-trifluororethane)	11.78	X
Freon 114 (1,2-dichloro-1,1,2,2-tetrafluoroethane)	12.2	X
Freon 12 (dichlorodifluoromethane)	12.31	X
Freon 13 (chlorotrifluoromethane)	12.91	X
Freon 22 (chlorofluoromethane)	12.45	X
Furan	8.89	
Furfural	9.21	
m-Fluorotoluene	8.92	
o-Fluorophenol	8.66	
o-Fluorotoluene	8.92	
p-Fluorotoluene	8.79	
H		
1-Hexene	9.46	

TABLE 1

SUMMARY OF IONIZATION POTENTIALS

Chemical Name	Ionization Potential (eV)	Cannot be Read by 10.6 eV PID
2-Heptanone	9.33	
2-Hexanone	9.35	
Heptane	10.08	
Hexachloroethane	11.1	X
Hexane	10.18	
Hydrazine	8.1	
Hydrogen	15.43	X
Hydrogen bromide	11.62	X
Hydrogen chloride	12.74	X
Hydrogen cyanide	13.91	X
Hydrogen fluoride	15.77	X
Hydrogen iodide	10.38	
Hydrogen selenide	9.88	
Hydrogen sulfide	10.46	
Hydrogen telluride	9.14	
Hydroquinone	7.95	
I		
1-Iodo-2-methylpropane	9.18	
1-Iodobutane	9.21	
1-Iodopentane	9.19	
1-Iodopropane	9.26	
2-Iodobutane	9.09	
2-Iodopropane	9.17	
Iodine	9.28	
Iodobenzene	8.73	
Isobutane	10.57	
Isobutyl acetate	9.97	
Isobutyl alcohol	10.12	
Isobutyl amine	8.7	
Isobutyl formate	10.46	
Isobutyraldehyde	9.74	
Isobutyric acid	10.02	
Isopentane	10.32	
Isophorone	9.07	
Isoprene	8.85	
Isopropyl acetate	9.99	
Isopropyl alcohol	10.16	
Isopropyl amine	8.72	

TABLE 1

SUMMARY OF IONIZATION POTENTIALS

Chemical Name	Ionization Potential (eV)	Cannot be Read by 10.6 eV PID
Isopropyl benzene	8.69	
Isopropyl ether	9.2	
Isovaleraldehyde	9.71	
m-Iodotoluene	8.61	
o-Iodotoluene	8.62	
p-Iodotoluene	8.5	
K		
Ketene	9.61	
L		
2,3-Lutidine	8.85	
2,4-Lutidine	8.85	
2,6-Lutidine	8.85	
M		
2-Methyl furan	8.39	
2-Methyl napthalene	7.96	
1-Methyl napthalene	7.96	
2-Methyl propene	9.23	
2-Methyl-1-butene	9.12	
2-Methylpentane	10.12	
3-Methyl-1-butene	9.51	
3-Methyl-2-butene	8.67	
3-Methylpentane	10.08	
4-Methylcyclohexene	8.91	
Maleic anhydride	10.8	X
Mesityl oxide	9.08	
Mesitylene	8.4	
Methane	12.98	X
Methanethiol (methyl mercaptan)	9.44	
Methyl acetate	10.27	
Methyl acetylene	10.37	
Methyl acrylate	9.9	
Methyl alcohol	10.85	X
Methyl amine	8.97	
Methyl bromide	10.54	
Methyl butyl ketone	9.34	
Methyl butyrate	10.07	
Methyl cellosolve	9.6	
Methyl chloride	11.28	X

TABLE 1

SUMMARY OF IONIZATION POTENTIALS

Chemical Name	Ionization Potential (eV)	Cannot be Read by 10.6 eV PID
Methyl chloroform (1,1,1-trichloroethane)	11	X
Methyl disulfide	8.46	
Methyl ethyl ketone	9.53	
Methyl formate	10.82	X
Methyl iodide	9.54	
Methyl isobutyl ketone	9.3	
Methyl isobutyrate	9.98	
Methyl isocyanate	10.67	X
Methyl isopropyl ketone	9.32	
Methyl isothiocyanate	9.25	
Methyl mercaptan	9.44	
Methyl methacrylate	9.7	
Methyl propionate	10.15	
Methyl propyl ketone	9.39	
α -Methyl styrene	8.35	
Methyl thiocyanate	10.07	
Methylal (dimethoxymethane)	10	
Methylcyclohexane	9.85	
Methylene chloride	11.32	X
Methyl-n-amyl ketone	9.3	
Monomethyl aniline	7.32	
Monomethyl hydrazine	7.67	
Morpholine	8.2	
n-Methyl acetamide	8.9	
N		
1-Nitropropane	10.88	X
2-Nitropropane	10.71	X
Naphthalene	8.12	
Nickel carbonyl	8.27	
Nitric oxide, (NO)	9.25	
Nitrobenzene	9.92	
Nitroethane	10.88	X
Nitrogen	15.58	X
Nitrogen dioxide	9.78	
Nitrogen trifluoride	12.97	X
Nitromethane	11.08	X
Nitrotoluene	9.45	
p-Nitrochloro benzene	9.96	

TABLE 1

SUMMARY OF IONIZATION POTENTIALS

Chemical Name	Ionization Potential (eV)	Cannot be Read by 10.6 eV PID
O		
Octane	9.82	
Oxygen	12.08	X
Ozone	12.08	X
P		
1-Pentene	9.5	
1-Propanethiol	9.2	
2,4-Pentanedione	8.87	
2-Pentanone	9.38	
2-Picoline	9.02	
3-Picoline	9.02	
4-Picoline	9.04	
n-Propyl nitrate	11.07	X
Pentaborane	10.4	
Pentane	10.35	
Perchloroethylene	9.32	
Pheneloic	8.18	
Phenol	8.5	
Phenyl ether (diphenyl oxide)	8.82	
Phenyl hydrazine	7.64	
Phenyl isocyanate	8.77	
Phenyl isothiocyanate	8.52	
Phenylene diamine	6.89	
Phosgene	11.77	X
Phosphine	9.87	
Phosphorus trichloride	9.91	
Phthalic anhydride	10	
Propane	11.07	X
Propargyl alcohol	10.51	
Propiolactone	9.7	
Propionaldehyde	9.98	
Propionic acid	10.24	
Propionitrile	11.84	X
Propyl acetate	10.04	
Propyl alcohol	10.2	
Propyl amine	8.78	
Propyl benzene	8.72	
Propyl ether	9.27	

TABLE 1

SUMMARY OF IONIZATION POTENTIALS

Chemical Name	Ionization Potential (eV)	Cannot be Read by 10.6 eV PID
Propyl formate	10.54	
Propylene	9.73	
Propylene dichloride	10.87	X
Propylene imine	9	
Propylene oxide	10.22	
Propyne	10.36	
Pyridine	9.32	
Pyrrole	8.2	
Q		
Quinone	10.04	
S		
Stibine	9.51	
Styrene	8.47	
Sulfur dioxide	12.3	X
Sulfur hexafluoride	15.33	X
Sulfur monochloride	9.66	
Sulfuryl fluoride	13	X
T		
o-Terphenyls	7.78	
1,1,2,2-Tetrachloro-1,2-difluoroethane (Freon 112)	11.3	X
1,1,1-Trichloroethane	11	X
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	11.78	X
2,2,4-Trimethyl pentane	9.86	
o-Toluidine	7.44	
Tetrachloroethane	11.62	X
Tetrachloroethene	9.32	
Tetrachloromethane	11.47	X
Tetrahydrofuran	9.54	
Tetrahydropyran	9.25	
Thiolacetic acid	10	
Thiophene	8.86	
Toluene	8.82	
Tribromoethene	9.27	
Tribromofluoromethane	10.67	X
Tribromomethane	10.51	
Trichloroethene	9.45	
Trichloroethylene	9.47	
Trichlorofluoromethane (Freon 11)	11.77	X

TABLE 1

SUMMARY OF IONIZATION POTENTIALS

Chemical Name	Ionization Potential (eV)	Cannot be Read by 10.6 eV PID
Trichloromethane	11.42	X
Triethylamine	7.5	
Trifluoromonobromo-methane	11.4	X
Trimethyl amine	7.82	
Tripropyl amine	7.23	
V		
o-Vinyl toluene	8.2	
Valeraldehyde	9.82	
Valeric acid	10.12	
Vinyl acetate	9.19	
Vinyl bromide	9.8	
Vinyl chloride	10	
Vinyl methyl ether	8.93	
W		
Water	12.59	X
X		
2,4-Xylidine	7.65	
m-Xylene	8.56	
o-Xylene	8.56	
p-Xylene	8.45	

FOP 011.0

CALIBRATION AND MAINTENANCE OF PORTABLE PHOTOIONIZATION DETECTOR

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

EQUIPMENT CALIBRATION

PROJECT INFORMATION:

Project Name: Date:

Project No.:

Client: Instrument Source: ☐ BM ☐ Rental

METER TYPE	UNITS	TIME	MAKE/MODEL	SERIAL NUMBER	CAL. BY	STANDARD	READING	SETTI
☐ pH meter	units		Myron L Company Ultra Meter 6P	606987		4.00		
						7.00		
						10.01		
☐ Turbidity meter	NTU		Hach 2100P Turbidimeter	970600014560		< 0.4		
						20		
						100		
						800		
☐ Sp. conductance meter	uS/mS		Myron L Company Ultra Meter 6P	606987		µS @ 25 °C		
☐ PID	ppm		Photovac 2020 PID			open air zero		MIBK re
						____ ppm Iso. Gas		factor =
☐ Particulate meter	mg/m³					zero air		
☐ Oxygen	%					open air		
☐ Hydrogen sulfide	ppm					open air		
☐ Carbon monoxide	ppm					open air		
☐ LEL	%					open air		
☐ Radiation Meter	uR/h					background area		
☐								

SAMPLE

ADDITIONAL REMARKS:

PREPARED BY: **DATE:**

BENCHMARK
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FIELD OPERATING PROCEDURES

Calibration and Maintenance of Portable Specific Conductance Meter

FOP 012.0

CALIBRATION AND MAINTENANCE OF PORTABLE SPECIFIC CONDUCTANCE METER

PURPOSE

This guideline describes a method for calibration of a portable specific conductance meter. This meter measures the ability of a water sample to conduct electricity, which is largely a function of the dissolved solids within the water. The instrument has been calibrated by the manufacturer according to factory specifications. This guideline presents a method for checking the factory calibration of a portable specific conductance meter. A calibration check is performed to verify instrument accuracy and function. All field test equipment will be checked at the beginning of each sampling day. This procedure also documents critical maintenance activities for this meter.

ACCURACY

The calibrated accuracy of the specific conductance meter will be within ± 1 percent of full-scale, with repeatability of ± 1 percent. The built-in cell will be automatically temperature compensated from at least 32° to 160° F (0° to 71°C).

PROCEDURE

Note: The information included below is equipment manufacturer- and model-specific, however, accuracy, calibration, and maintenance procedures for this type of portable equipment are typically similar. The information below pertains to the Myron L Company Ultrameter Model 6P. The actual equipment to be used in the field will be equivalent or similar.

CALIBRATION AND MAINTENANCE OF PORTABLE SPECIFIC CONDUCTANCE METER

1. Calibrate all field test equipment at the beginning of each sampling day. Check and recalibrate the specific conductance meter according to the manufacture's specifications.

2. Use a calibration solution of known specific conductivity and salinity. For maximum accuracy, use a Standard Solution Value closest to the samples to be tested.

3. Rinse conductivity cell three times with proper standard.

4. Re-fill conductivity cell with same standard.

5. Press **COND** or **TDS**, then press **CAL/MCLR**. The "CAL" icon will appear on the display.

6. Press the **↑/MS** or **MR/↓** key to step the displayed value toward the standard's value or hold a key down to cause rapid scrolling of the reading.

7. Press CAL/MCLR once to confirm new value and end the calibration sequence for this particular solution type.

8. Repeat steps 1 through 7 with additional new solutions, as necessary.

9. Document the calibration results and related information in the Project Field Book and on an **Equipment Calibration Log** (see attached sample), indicating the meter readings before and after the instrument has been adjusted. This is important, not only for data validation, but also to establish maintenance schedules and component replacement. Information will include, at a minimum:
    - Time, date and initials of the field team member performing the calibration
    - The unique identifier for the meter, including manufacturer, model, and serial number
    - The brand and expiration date of the calibration standards
    - The instrument readings: before and after calibration

- The instrument settings (if applicable)
- The overall adequacy of calibration including the Pass or fail designation in accordance with the accuracy specifications presented above.
- Corrective action taken (see Maintenance below) in the event of failure to adequately calibrate.

MAINTENANCE

NOTE: Ultrameters should be rinsed with clean water after use. Solvents should be avoided. Shock damage from a fall may cause instrument failure.

Temperature Extremes

Solutions in excess of 160°F/71°C should not be placed in the cell cup area; this may cause damage. Care should be exercised not to exceed rated operating temperature. Leaving the Ultrameter in a vehicle or storage shed on a hot day can easily subject the instrument to over 150°F voiding the warranty.

Battery Replacement

Dry Instrument THOROUGHLY. Remove the four bottom screws. Open instrument carefully; it may be necessary to rock the bottom slightly side to side to release it from the RS-232 connector. Carefully detach battery from circuit board. Replace with 9-volt alkaline battery. Replace bottom, ensuring the sealing gasket is installed in the groove of the top half of case. Re-install screws, tighten evenly and securely.

NOTE: Because of nonvolatile EEPROM circuitry, all data stored in memory and all calibration settings are protected even during power loss or battery replacement.

Cleaning Sensors

The conductivity cell cup should be kept as clean as possible. Flushing with clean water following use will prevent buildup on electrodes. However, if very dirty samples — particularly scaling types — are allowed to dry in the cell cup, a film will form. This film reduces accuracy. When there are visible films of oil, dirt, or scale in the cell cup or on the electrodes, use a foaming non-abrasive household cleaner. Rinse out the cleaner and your Ultrameter is ready for accurate measurements.

NOTE: Maintain a log for each monitoring instrument. Record all maintenance performed on the instrument on this log with date and name of the organization performing the maintenance.

ATTACHMENTS

Equipment Calibration Log (sample)

FOP 012.0

CALIBRATION AND MAINTENANCE OF PORTABLE SPECIFIC CONDUCTANCE METER

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

EQUIPMENT CALIBRATION

PROJECT INFORMATION:

Project Name: Date:

Project No.:

Client: Instrument Source: ☐ BM ☐ Rental

METER TYPE	UNITS	TIME	MAKE/MODEL	SERIAL NUMBER	CAL. BY	STANDARD	READING	SETTI
☐ pH meter	units		Myron L Company Ultra Meter 6P	606987		4.00		
						7.00		
						10.01		
☐ Turbidity meter	NTU		Hach 2100P Turbidimeter	970600014560		< 0.4		
						20		
						100		
						800		
☐ Sp. conductance meter	uS/mS		Myron L Company Ultra Meter 6P	606987		µS @ 25 °C		
☐ PID	ppm		Photovac 2020 PID			open air zero		MIBK re
						____ ppm Iso. Gas		factor =
☐ Particulate meter	mg/m^3					zero air		
☐ Oxygen	%					open air		
☐ Hydrogen sulfide	ppm					open air		
☐ Carbon monoxide	ppm					open air		
☐ LEL	%					open air		
☐ Radiation Meter	uR/h					background area		
☐								

SAMPLE

ADDITIONAL REMARKS:

PREPARED BY: **DATE:**

BENCHMARK
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FIELD OPERATING PROCEDURES

Composite Sample Collection Procedure for Non-VOC Analysis

FOP 013.0

COMPOSITE SAMPLE COLLECTION PROCEDURE FOR NON-VOLATILE ORGANIC ANALYSIS

PURPOSE

This guideline addresses the procedure to be used when soil samples are to be composited in the field.

PROCEDURE

1. Transfer equal weighted aliquots of soil from individual split-spoon samples, excavator bucket, hand auger or surface soil sample location to a large precleaned stainless steel (or Pyrex glass) mixing bowl.

2. Thoroughly mix (homogenize) and break up the soil using a stainless steel scoop or trowel.

3. Spread the composite sample evenly on a stainless steel tray and quarter the sample.

4. Discard alternate (i.e., diagonal) quarters and, using a small stainless steel scoop or spatula, collect equal portions of subsample from the remaining two quarters until the amount required for the composite sample is acquired. Transfer these subsamples to a precleaned stainless steel (or Pyrex glass) mixing bowl and re-mix.

5. Transfer the composite sample to the laboratory provided, precleaned sample jars. Store any excess sample from the stainless steel tray in a separate, precleaned, wide-mouth sample jar and refrigerate for future use, if applicable.

6. Decontaminate all stainless steel (or Pyrex glass) equipment in accordance with Benchmark's Non-disposable and Non-dedicated Sampling Equipment Decontamination procedures.

7. Prepare samples in accordance with Benchmark's Sample Labeling, Storage and Shipment FOP.

8. Record all sampling details in the Project Field Book and on the Soil/Sediment Sample Collection Summary Log (sample attached).

ATTACHMENTS

Soil/Sediment Sample Collection Summary Log (sample)

REFERENCES

Benchmark FOPs:

040 *Non-disposable and Non-dedicated Sampling Equipment Decontamination*

046 *Sample Labeling, Storage and Shipment*

FOP 013.0

COMPOSITE SAMPLE COLLECTION PROCEDURE FOR NON-VOLATILE ORGANIC ANALYSIS

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

SOIL/SEDIME

SAMPLE COLLECTION SUMMARY L

Field ID	Location	QC Type	Depth (feet)		Analytical Parameters	Containers	Date	Time	Sampler Initials	Comments (e.g. problems encountered, ref. to varian location changes, depth changes, import matrix observations or description, grav thickness, etc.)
			from	to						

SAMPLE

Equipment Rinsate Blanks *- Pour clean deionized wate[r] [a]nd s[a]mpling equipment into sample containers. Collect at a frequency of 1 per sampling method per day. Analyze for all those parameters analyzed for in the samples coll the same day. HSL Metals can be substituted by only the Metals a[n]d [Hexa]valent Chromium which needs a separate container). Match equipment used for constituents of concern to rinsate analyte. Note deionzied water lot # or distilay. manufacturers info & date.*

MS/MSD/MSB *- Collect at a frequency of 1 per 20 samples of each matri[x] [f]or all those parameters analyzed for the samples collected the same day.*

Field Blank *- Pour clean deionized water (used as final decon rinse water) into sample containers while at the sampling site. Collect field blanks at a frequency of 1 per lot of deionized water. Note water lot number and dates in use for decon in 'Comments' sectio*

Investigation Derived Waste (IDW) Characterization samples *- One composited sample from all drums of decon fluids and soil. Please note number of drums and labels on collection log.*

Notes:

1. See QAPP for sampling frequency and actual number of QC samples.
2. CWM - clear, wide-mouth glass jar with Teflon-lined cap.
3. HDPE - high density polyethylene bottle.
4. MS/MSD/MSB - Matrix Spike, Matrix Spike Duplicate, Matrix Spike Blank.
5. BD - Blind Duplicate - indicate location of duplicate.

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FIELD OPERATING PROCEDURES

Documentation Requirements for Drilling and Well Installation

FOP 015.0

DOCUMENTATION REQUIREMENTS FOR DRILLING AND WELL INSTALLATION

PURPOSE

The purpose of these documentation requirements is to document the procedures used for drilling and installing wells in order to ensure the quality of the data obtained from these operations. Benchmark field technical personnel will be responsible for developing and maintaining documentation for quality control of field operations. At least one field professional will monitor each major operation (e.g. one person per drilling rig) to document and record field procedures for quality control. These procedures provide a description of the format and information for this documentation.

PROCEDURE

Project Field Book

Personnel assigned by the Benchmark Field Team Leader or Project Manager will maintain a Project Field Book for all site activities. These Field Books will be started upon initiation of any site activities to document the field investigation process. The Field Books will meet the following criteria:

- Permanently bound, with nominal 8.5-inch by 11-inch gridded pages.
- Water resistant paper.
- Pages must be pre-numbered or numbered in the field, front and back.

Notations in the field book will be in black or blue ink that will not smudge when wet. Information that may be recorded in the Field Book includes:

- Time and date of all entries.

- Name and location of project site and project job number.
- Listing of key project, client and agency personnel and telephone numbers.
- Date and time of daily arrivals and departures, name of person keeping the log, names and affiliation of persons on site, purpose of visit (if applicable), weather conditions, outline of project activities to be completed.
- Details of any variations to the procedures/protocols (i.e., as presented in the Work Plan or Field Operating Procedures) and the basis for the change.
- Field-generated data relating to implementation of the field program, including sample locations, sample descriptions, field measurements, instrument calibration, etc.
- Record of all photographs taken in the field, including date, time, photographer, site location and orientation, sequential number of photograph, and roll number.

Upon completion of the site activities, all Field Books will be photocopied and both the original and photocopied versions placed in the project files. In addition, all field notes except those presented on specific field forms will be neatly transcribed into Field Activity Daily Log (FADL) forms (sample attached).

Field Borehole/Monitoring Well Installation Log Form

Examples of the Field Borehole Log and Field Borehole/Monitoring Well Installation Log forms are attached to this Field Operating Procedure. One form will be completed for every boring by the Benchmark field person overseeing the drilling. At a minimum, these forms will include:

- Project name, location, and number.
- Boring number.

- Rig type and drilling method.
- Drilling dates.
- Sampling method.
- Sample descriptions, to meet the requirements of the Unified Soil Classification System (USCS) for soils and the Unified Rock Classification System (URCS) for rock.
- Results of photoionization evaluations (scan and/or headspace determinations).
- Blow counts for sampler penetration (Standard Penetration Test, N-Value).
- Drilling rate, rig chatter, and other drilling-related information, as necessary.

All depths recorded on Boring/Monitoring Well Installation Log forms will be expressed in increments tenths of feet, and not in inches.

Well Completion Detail Form

An example of this form is attached to this Field Operating Procedure. One form will be completed for every boring by the Benchmark field person overseeing the well installation. At a minimum, these forms will include:

- Project name, location, and number.
- Well number.
- Installation dates.
- Dimensions and depths of the various well components illustrated in the Well Completion Detail (attached). These include the screened interval, bottom caps or plugs, centralizers, and the tops and bottoms of the various annular materials.

- Drilling rate, rig chatter, and other drilling related information.

All depths recorded on Field Borehole/Monitoring Well Installation Logs will be expressed in tenths of feet, and not in inches.

Daily Drilling Report Form

An example of this form is attached to this Field Operating Procedure. This form should be used to summarize all drilling activities. One form should be completed for each rig for each day. These forms will include summaries of:

- Footage drilled, broken down by diameter (e.g. 200 feet of 6-inch diameter hole, 50 feet of 10-inch diameter hole).
- Footage of well and screen installed, broken down by diameter.
- Quantities of materials used, including sand, cement, bentonite, centralizers, protective casings, traffic covers, etc. recorded by well or boring location.
- Active time (hours), and activity (drilling, decontamination, development, well installation, surface completions, etc.)
- Down-time (hours) and reason.
- Mobilizations and other events.
- Other quantities that will be the basis for drilling invoices.

The form should be signed daily by both the Benchmark field supervisor and the driller's representative, and provided to the Benchmark Field Team Leader.

Other Project Field Forms

Well purging/well development forms, test pit logs, environmental sampling field data sheets, water level monitoring forms, and well testing (slug test or pumping test) forms. Refer to specific guidelines for form descriptions.

ATTACHMENTS

Field Activity Daily Log (FADL) (sample)
Field Borehole Log (sample)
Field Borehole/Monitoring Well Installation Log (sample)
Stick-up Well/Piezometer Completion Detail (sample)
Flush-mount Well/Piezometer Completion Detail (sample)
Daily Drilling Report (sample)

DOCUMENTATION REQUIREMENTS FOR DRILLING AND WELL INSTALLATION

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

DAILY LOG				
	DATE			
	NO.			
	SHEET		OF	

FIELD ACTIVITY DAILY LOG

PROJECT NAME:	PROJECT NO.
PROJECT LOCATION:	CLIENT:
FIELD ACTIVITY SUBJECT:	
DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:	

TIME	DESCRIPTION

SAMPLE

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS:
WEATHER CONDITIONS: A.M.: P.M.:	IMPORTANT TELEPHONE CALLS:
BM/TK PERSONNEL ON SITE:	
SIGNATURE	DATE:

(CONTINUED)

DOCUMENTATION REQUIREMENTS FOR DRILLING AND WELL INSTALLATION

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

FIELD BOREHOLE LOG

PROJECT:		**Log of Boring No.:**	
BORING LOCATION:		ELEVATION AND DATUM:	
DRILLING CONTRACTOR:		DATE STARTED:	DATE FINISHED:
DRILLING METHOD:		TOTAL DEPTH:	SCREEN INTERVAL:
DRILLING EQUIPMENT:		DEPTH TO WATER: FIRST: / COMPL.:	CASING:
SAMPLING METHOD:		LOGGED BY:	
HAMMER WEIGHT:	DROP:	RESPONSIBLE PROFESSIONAL:	REG. NO.

Depth (fbgs)	SAMPLES: Sample No.	Sample	Blows (per 6")	SPT N-Value	Recovery	PID Scan (ppm)	SAMPLE DESCRIPTION USCS Classification: Color, Moisture Condition, % of Soil Type, Te… …icity, Fabric, Bedding, Weathering/Fracturing, Odor, O… SURFACE ELEVATION (FMSL):	REMARKS

SAMPLE

ABANDONMENT:

Volume of cement/bentonite grout required:	$V = \pi r^2 \times 7.48 =$	gallons	borehole depth =	ft.
Volume of cement/bentonite grout installed:		gallons	borehole diameter =	ft.
Has bridging of grout occurred?	☐ yes ☐ no		borehole radius =	ft.
If yes, explain resolution:				
Method of installation:				

Project No:	**Benchmark Environmental Engineering & Science, PLLC**	Figure

DOCUMENTATION REQUIREMENTS FOR DRILLING AND WELL INSTALLATION

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

FIELD BOREHOLE/MONITORING WELL INSTALLATION LOG

PROJECT:			**Log of Well No.:**	
BORING LOCATION:			ELEVATION AND DATUM:	
DRILLING CONTRACTOR:			DATE STARTED:	DATE FINISHED:
DRILLING METHOD:			TOTAL DEPTH:	SCREEN INTERVAL:
DRILLING EQUIPMENT:			DEPTH TO WATER: FIRST: / COMPL.:	CASING:
SAMPLING METHOD:			LOGGED BY:	
HAMMER WEIGHT:	DROP:		RESPONSIBLE PROFESSIONAL:	REG. NO.

Depth (fbgs)	SAMPLES: Sample No.	Sample	Blows (per 6")	SPT N-Value	Recovery	PID Scan (ppm)	SAMPLE DESCRIPTION	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
							USCS Classification: Color, Moisture Condition, % of Soil Type, Plas... Fabric, Bedding, Weathering/Fracturing, Odor, Ot...	
							SURFACE ELEVATION (FMSL):	

SAMPLE

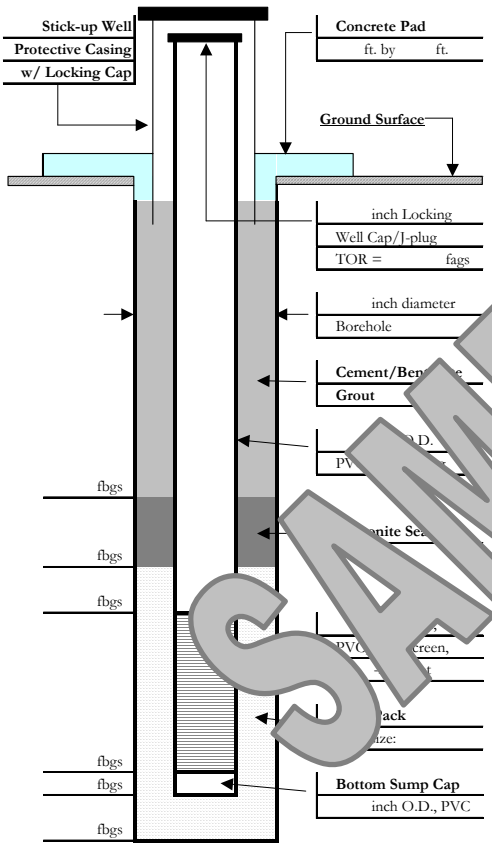
Project No:	Benchmark Environmental Engineering & Science, PLLC	Figure

DOCUMENTATION REQUIREMENTS FOR DRILLING AND WELL INSTALLATION

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

STICK-UP WELL/PIEZOMETER COMPLETION DETAIL

Project Name:	WELL NUMBER:
Client:	Date Installed:
Boring Location:	Project Number:



Driller Information	
Company:	
Driller:	
Helper:	
Permit Number:	
Drill Rig Type:	

Well Informa	
Land Surfa ation:	fmsl (approximate)
Drilling Meth	
Soil Sample Colle nod:	
Fluid:	
Fl s During Dri	gallons (approximate)

al C Cons io	
C	
S	
Pack:	
Seal:	

Dev pment	
urpose:	
Tec neque(s):	
ate Completed:	
BM/TK Personnel:	
Total Volume Purge:	gallons
Static Water Level:	fbTOR
Pump Depth:	
Purge Duration:	minutes
Yeild:	gpm
Specific Capacity:	gpm/ft

SAMPLE

Comments:

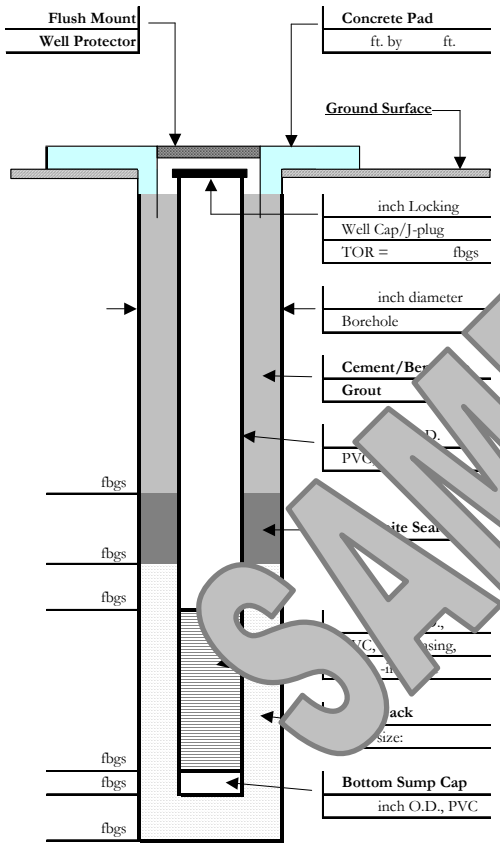
PREPARED BY: DATE:

DOCUMENTATION REQUIREMENTS FOR DRILLING AND WELL INSTALLATION

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

FLUSHMOUNT WELL/PIEZOMETER COMPLETION DETAIL

Project Name:	WELL NUMBER:
Client:	Date Installed:
Boring Location:	Project Number:



Driller Information	
Company:	
Driller:	
Helper:	
Permit Number:	
Drill Rig Type:	

Well Inform	
Land Surfa ation	fmsl (approximate)
Drilling Meth	
S Sample Colle thod:	
Fluid:	
Flu During Dril	gallons (approximate)

l o Con ion	
C	
S	
Pack:	
A Seal:	

Dev opment	
W urpose:	
Technneque(s):	
Date Completed:	
BM/TK Personnel:	
Total Volume Purge:	gallons
Static Water Level:	fbTOR
Pump Depth:	
Purge Duration:	minutes
Yeild:	gpm
Specific Capacity:	gpm/ft

SAMPLE

Comments:

PREAPRED BY: DATE:

DOCUMENTATION REQUIREMENTS FOR DRILLING AND WELL INSTALLATION

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

DAILY DRILLING REPORT

CONTRACTOR:	DATE:
DRILLING EQUIPMENT:	PROJECT:
CREW MEMBERS:	JOB NUMBER:
SITE NAME:	BM PERSONNEL:

CATEGORY	Total Hours	a.m. 6 7 8 9 10 11 12	p.m. 1 2 3 4 5 6 7 8 9 10 11 12	a.m. 1 2 3 4 5 6
MOB / DEMOB				
DRILLING				
WELL INSTALLATION				
DEVELOPMENT / TESTING				
GROUTING				
STEAM / DECON				
DOWN TIME (explain below)				
STANDBY (explain below)				
CLEANUP				
PREP FOR DRILLING				
LUNCH				
OTHER:				

REMARKS:

DRILLING & WELL MATERIALS: Describe nature, qu…

ITEM OR SERVICE	QUANTITIES	LOCATION				TOTALS
Starting depth (fbgs)						--
Ending depth (fbgs)						--
Total footage drilled (feet)						
Drilling Method (HSA, air … ble etc.)						--
Auger/Bit size						--
CSSS starting depth (fbg…						--
CSSS ending depth (fbgs)						--
Total CSSS footage						
-inch Schedule 40 PVC screen, slot size =						
-inch Schedule 40 PVC riser						
-inch Schedule 40 PVC screen, sl…						
-inch Schedule 40 PVC riser						
-inch Schedule 40 PVC screen, slot size =						
-inch Schedule 40 PVC riser						
Sand pack, size =						
Bentonite pellets/chips, size =						
Cement/beontonite grout						
☐ Protective casing ☐ Flushmount road box						
Lockable J-plug						
Lock						

PERSONNEL TIME LOG:

POSITION	NAME	HOURS
Observer		
Drillers		

DRILLER (optional):	BM REP.

SAMPLE

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FIELD OPERATING PROCEDURES

Drill Site Selection Procedure

FOP 017.0

DRILL SITE SELECTION PROCEDURE

PURPOSE

This procedure presents a method for selecting a site location for drilling. Drill site selection should be based on the project objectives, ease of site access, freedom from obstructions and buried metallic objects (drums) and site safety (appropriate set backs from overhead and buried services).

PROCEDURE

The following procedure outlines procedures prior to drilling activities:

1. Review project objectives and tentatively select drilling locations that provide necessary information for achieving objectives (i.e., Work Plan).

2. Clear locations with property owner/operator to ensure that drilling activities will not interfere with site operations and select appropriate access routes.

3. Stake locations in the field, measure distance from locations to recognizable landmarks, such as building or fence lines and plot locations on site plan. Ensure location is relatively flat, free of overhead wires and readily accessible. Survey location if property ownership is in doubt.

4. Obtain clearances from appropriate utilities and if buried waste/metallic objects are suspected, screen location with appropriate geophysical method.

5. Establish a secure central staging area for storage of drilling supplies and for equipment decontamination. Locate a secure storage area for drilling samples, as necessary.

ATTACHMENTS

none

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FIELD OPERATING PROCEDURES

Drilling and Excavation Equipment Decontamination Procedures

FOP 018.0

DRILLING AND EXCAVATION EQUIPMENT DECONTAMINATION PROCEDURES

PURPOSE

This procedure is to be used for the decontamination of drilling and excavation equipment (i.e., drill rigs, backhoes, augers, drill bits, drill rods, buckets, and associated equipment) used during a subsurface investigation. The purpose of this procedure is to remove chemical constituents associated with a particular drilling or excavation location from this equipment. This prevents these constituents from being transferred between drilling or excavation locations, or being transported out of controlled areas.

PROCEDURE

The following procedure will be utilized prior to the use of drilling or excavation equipment at each location, and prior to the demobilization of such equipment from the site:

1. Remove all loose soil and other particulate materials from the equipment at the survey site.

2. Wrap augers, tools, plywood, and other reusable items with a plastic cover prior to transport from the site of use to the decontamination facility.

3. Transport equipment to the decontamination facility. All equipment must be decontaminated at an established decontamination facility. This facility will be placed within a controlled area, and will be equipped with necessary features to contain and collect wash water and entrained materials.

4. Wash equipment thoroughly with pressurized low-volume water or steam, supplied by a pressure washer or steam cleaner.

5. If necessary, use a brush or scraper to remove visible soils adhering to the equipment, and a non-phosphate detergent to remove any oils, grease, and/or hydraulic fluids adhering to the equipment. Continue pressure washing until all visible contaminants are removed.

6. Allow equipment to air dry.

7. Store equipment in a clean area or wrap the equipment in new plastic sheeting as necessary to ensure cleanliness until ready for use.

8. Manage all wash waters and entrained solids as described in the Benchmark Field Operating Procedure for Management of Investigation-Derived Waste.

ATTACHMENTS

none

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FIELD OPERATING PROCEDURES

Establishing Horizontal and Vertical Control

FOP 021.0

ESTABLISHING HORIZONTAL AND VERTICAL CONTROL

PURPOSE

This guideline presents a method for establishing horizontal and vertical controls at a project site. It is imperative that this procedure be performed accurately, as all topographic and site maps, monitoring well locations and test pit locations will be based on these controls.

PROCEDURE

A. Establishing Horizontal Primary and Project Control

1. Research the State Plan Coordinate, USGS or project site applicable horizontal control monuments.

2. At the project site, recover the above-mentioned monuments, two markers minimum being recovered.

3. Establish control points on the project site by bringing in the primary control points recovered in the field.

4. All control points will be tied into a closed traverse to assure the error of closure.

5. Compute closures for obtaining degree of accuracy to adjust traverse points.

B. Establishing Vertical Primary and Project Control

1. Research project or USGS datum for recovering monument(s) for vertical control if different than those previously found.

2. Recover the monuments in the field, two markers minimum being found.

3. Set the projects benchmarks.

4. Run a level line from the monuments to the set project benchmarks and back, setting turning points on all benchmarks set on site.

5. Reduce field notes and compute error of closure to adjust benchmarks set on site.

6. Prepare the recovery sketches and tabulate a list for horizontal and vertical control throughout project site.

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FIELD OPERATING PROCEDURES

Groundwater Level Measurement

FOP 022.0

GROUNDWATER LEVEL MEASUREMENT

PURPOSE

This procedure describes the methods used to obtain accurate and consistent water level measurements in monitoring wells, piezometers and well points. Water levels will be measured at monitoring wells and, if practicable, in supply wells to estimate purge volumes associated with sampling, and to develop a potentiometric surface of the groundwater in order to estimate the direction and velocity of flow in the aquifer. Water levels in monitoring wells will be measured using an electronic water level indicator (e-line) that has been checked for operation prior to mobilization.

PROCEDURE

1. Decontaminate the e-line probe and a lower portion of cable following the procedures referenced in the Benchmark Field Operating Procedure for Non-Disposable and Non-Dedicated Sampling Equipment Decontamination. Store the e-line in a protected area until use. This may include wrapping the e-line in clean plastic until the time of use.

2. Unlock and remove the well protective cap or cover and place on clean plastic.

3. Lower the probe slowly into the monitoring well until the audible alarm sounds. This indicates the depth to water has been reached.

4. Move the cable up and down slowly to identify the depth at which the alarm just begins to sound. Measure this depth against the mark on the lip of the well riser used as a surveyed reference point (typically the north side of the riser).

5. Read depth from the graduated cable to the nearest 0.01 foot. Do not use inches. If the e-line is not graduated, use a rule or tape measure graduated in 0.01-foot increments to measure from the nearest reference mark on the e-line cable.

6. Record the water level on a Water Level Monitoring Record (sample attached).

7. Remove the probe from the well slowly, drying the cable and probe with a clean paper wipe. Be sure to repeat decontamination before use in another well.

8. Replace well plug and protective cap or cover. Lock in place as appropriate.

ATTACHMENTS

Water Level Monitoring Record (sample)

REFERENCES

Benchmark FOPs:
040 Non-Disposable and Non-Dedicated Sampling Equipment Decontamination

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

WATER LEVEL MONITORING RECORD

Project Name:	Client:
Project No.:	Location:
Field Personnel:	Date:
Weather:	

Well No.	Time	Top of Riser Elevation (fmsl)	Static Depth to Water (fbTOR)	Groundwater Elevation (fmsl)	Total Depth (fbTOR)	Last Total Depth Measurement (fbTOR)

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FIELD OPERATING PROCEDURES

Groundwater Purging Procedures Prior to Sample Collection

FOP 023.0

GROUNDWATER PURGING PROCEDURES PRIOR TO SAMPLE COLLECTION

PURPOSE

This procedure describes the methods for monitoring well/piezometer purging prior to groundwater sample collection in order to collect representative groundwater samples. The goal of purging is to remove stagnant, non-representative groundwater from the well and/or prevent stagnant water from entering collected samples. Purging involves the removal of at least three to five volumes of water in wells with moderate yields and at least one well volume from wells with low yields (slow water level recovery).

Purge and sample wells in order of least-to-most contaminated (this is not necessary if dedicated or disposable equipment is used). If you do not know this order, sample the upgradient wells first, then the furthest down-gradient or side-gradient wells, and finally the wells closest to, but down-gradient of the most contaminated area. Sampling should commence immediately following purging or as soon as the well has adequately recharged and not more than 24-hours following end time of evacuation.

PROCEDURE

1. Prepare the electronic water level indicator (e-line) in accordance with the procedures referenced in the Benchmark Field Operating Procedure for Groundwater Level Measurement and decontaminate the e-line probe and a lower portion of cable following the procedures referenced in the Benchmark Field Operating Procedure for Non-disposable and Non-dedicated Sampling Equipment Decontamination. Store the e-line in a protected area until use. This may include wrapping the e-line in clean plastic until the time of use.

2. Inspect the interior and exterior of the well/piezometer for signs of vandalism or damage and record condition on the Groundwater Field Form and/or Groundwater Well Inspection Form (samples attached). Specifically, inspect

the integrity of the following: concrete surface seal, lock, protective casing and well cover, well riser and J-plug/cap. Report any irregular findings to the Project Manager.

3. Unlock and remove the well protective cap or cover and place on clean plastic to avoid introducing foreign material into the well.

4. Calibrate the photoionization detector (PID) in accordance with the Benchmark Field Operating Procedure for Calibration and Maintenance of Portable Photoionization Detector.

5. Monitor the well for organic vapors using a PID, as per the Work Plan. If a reading of greater than 5 ppm is recorded, the well should be allowed to vent until levels drop below 5 ppm before proceeding with purging.

6. Lower the e-line probe slowly into the monitoring well and record the initial water level in accordance with the procedures referenced in the Benchmark Field Operating Procedure for Groundwater Level Measurement.

7. Following static water level determinations, slowly lower the e-line to the bottom of the well/piezometer. Record the total depth to the nearest 0.01-foot and compare to the previous total depth measurement. If a significant discrepancy exists, re-measure the total depth. Continue with purging activities observing purge water to determine whether the well/piezometer had become silted due to inactivity or damaged (i.e., well sand within purge water). Upon confirmation of the new total depth and determination of the cause (i.e., siltation or damage), notify the Project Manager following field activities.

8. Calculate the volume of water in the well based on the water level below the top of riser and the total depth of the well using the following equation:

$$V = 0.0408[(B)^2 \times \{(A) - (C)\}]$$

Where,

A = Total Depth of Well (feet below measuring point)
B = Casing diameter (inches)
C = Static Water Level (feet below measuring point)

9. **For wells where the water level is 20 feet or less below the top of riser**, a peristaltic pump may be used to purge the well. Measure the purged volume using a calibrated container (i.e., graduated 5-gallon bucket) and record measurements on the attached Groundwater Well Development and Purge Log. Use new and dedicated tubing for each well. During the evacuation of shallow wells, the intake opening of the pump tubing should be positioned just below the surface of the water. As the water level drops, lower the tubing as needed to maintain flow. For higher yielding wells, the intake level should not be lowered past the top of the screen. Pumping from the top of the water column will ensure proper flushing of the well. Continue pumping until the required volumes are removed (typically three well volumes). For higher yielding wells, adjust the purging rate to maintain the water level above the screen. For lower yielding wells or wells where the screen straddles the water table, maintain purging at a rate that matches the rate of recovery of the well (well yield). If the well purges to dryness and is slow to recharge (greater than 15 minutes), terminate evacuation.

10. **For wells where the water level is initially below 20 feet,** or drawn down to this level because of slow recharge rate, conduct purging using one of three devices listed below:

- Bailer – A bottom filling dedicated polyethylene bailer attached to a length of dedicated hollow-braid polypropylene rope. Purging a well utilizing a bailer should be conducted smoothly and slowly as not to agitate the groundwater or damage the well.

- Well Wizard Purge Pump (or similar) – This pneumatic bladder pump uses compressed air to push water to the surface. Groundwater is not in contact with the drive air during the pumping process, therefore the pump may be used for sample collection.

- Waterra™ Pump – This manually operated pump uses dedicated polyethylene tubing and a check valve that can be used as an optional method for purging deeper wells. The pump utilizes positive pressure to evacuate the well, therefore the pump may be used for sample collection, and however over-agitation groundwater should be avoided.

Prior to use in a well, non-dedicated bailers, exterior pump bodies and pump tubing should be cleaned in accordance with the Benchmark Field Operating Procedure for Non-Disposable and Non-Dedicated Sampling Equipment Decontamination. Dedicated and/or disposable equipment should be contained within the sealed original manufacturers packaging and certified pre-cleaned by the manufacturer with a non-phosphate laboratory detergent and rinsed using de-ionized water.

8. Purging will continue until a predetermined volume of water has been removed (typically three well volumes) or to dryness. Measurements for pH, temperature, specific conductance, dissolved oxygen (optional), Eh (optional) and turbidity will be recorded following removal of each well volume. Purge the well to dryness or until the readings for indicator parameters listed above (or well-specific indicator parameters) stabilize within the following limits for each parameter measured:

Field Parameter	Stabilization Criteria
Dissolved Oxygen	± 0.3 mg/L
Turbidity	± 10 %
Specific Conductance	± 3 %
Eh	± 10 mV
PH	± 0.1 unit

Stabilization criteria presented within the project Work Plan will take precedence.

DOCUMENTATION AND SAMPLE COLLECTION

This section pertains to the documentation of collected field data during and following purging activities and sample collection.

1. Record all data including the final three stable readings for each indicator parameter on the attached Groundwater Well Purge & Sample Log.

2. Record, at a minimum, the "volume purged," "purging stop-time," "purged dry (Y/N)," "purged below sand pack (Y/N)," and any problems purging on the attached Groundwater Well Purge & Sample Log.

3. Collect groundwater samples in accordance with the Benchmark Field Operating Procedure for Groundwater Sample Collection. Record "sample flow rate" as an average, "time sample collected," and any other pertinent information related to the sampling event on the attached Groundwater Well Purge & Sample Log.

4. Restore the well to its capped/covered and locked condition.

ALTERNATIVE METHODS

Alternative purging and sampling methods and equipment, other than those described herein are acceptable if they provide representative groundwater samples. The purging and sampling method and equipment must not adversely affect sample integrity, chemistry, temperature and turbidity. In addition, alternative equipment must have minimal or no effect on groundwater geochemistry, aquifer permeability and well materials. Equipment materials must also minimize sorption and leaching. The field team is responsible for documenting

and describing any alternative equipment and procedures used to purge a well and collect samples.

ATTACHMENTS

Groundwater Field Form
Groundwater Well Inspection Form

REFERENCES

Benchmark FOPs:

011 *Calibration and Maintenance of Portable Photoionization Detector*
022 *Groundwater Level Measurement*
024 *Groundwater Sample Collection Procedures*
040 *Non-disposable and Non-dedicated Sampling Equipment Decontamination*

FOP 023.0

GROUNDWATER PURGING PROCEDURES PRIOR TO SAMPLE COLLECTION

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

GROUNDWATER FIELD FORM

Project Name: Date:

Location: Project No.: Field Team:

Well No.			Diameter (inches):			Sample Time:			
Product Depth (fbTOR):			Water Column (ft):			DTW when sampled:			
DTW (static) (fbTOR):			Casing Volume:			Purpose: ☐ Development ☐ Sample			
Total Depth (fbTOR):			Purge Volume (gal):			Purge Method:			
Time	Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
	0 Initial								
	1								
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	9								
	10								
Sample Information:			Date: (if different from above)						
	S1								
	S2								

Well No.			Diameter (inches):			Sample Time:			
Product Depth (fbTOR):			Water Column (ft):			DTW when sampled:			
DTW (static) (fbTOR):			Casing Volume:			Purpose: ☐ Development ☐ Sample			
Total Depth (fbTOR):			Purge Volume (gal):			Purge Method:			
Time	Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
	0 Initial								
	1								
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	9								
	10								
Sample Information:			Date: (if different from above)						
	S1								
	S2								

SAMPLE

REMARKS:

Note: All water level measurements are in feet, distance from top of riser.

Volume Calculation

Diam.	Vol. (g/ft)
1"	0.041
2"	0.163
4"	0.653
6"	1.469

Stabilization Criteria

Parameter	Criteria
pH	± 0.1 unit
SC	± 3%
Turbidity	± 10%
DO	± 0.3 mg/L
ORP	± 10 mV

PREPARED BY:

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

GROUNDWATER WELL INSPECTION FORM

Project:	**WELL I.D.:**
Client:	
Job No.:	
Date:	
Time:	

EXTERIOR INSPECTION

Protective Casing:
Lock:
Hinge/Lid:
Concrete Surface Seal:
Bollards:
Label/I.D.:
Other:

INTERIOR INSPECTION

Well Riser:
Annular Space:
Well Cap:
Water Level (fbTOR):
Total Depth (fbTOR):
Other:

Comments/Corrective Actions:

PREPARED BY: DATE:

SAMPLE

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FIELD OPERATING PROCEDURES

Groundwater Sample Collection Procedures

FOP 024.0

GROUNDWATER SAMPLE COLLECTION PROCEDURES

PURPOSE

This procedure describes the methods for collecting groundwater samples from monitoring wells and domestic supply wells following purging and sufficient recovery. This procedure also includes the preferred collection order in which water samples are collected based on the volatilization sensitivity or suite of analytical parameters required.

PROCEDURE

Allow approximately 3 to 10 days following well development before performing purge and sample activities at any well location. Conversely, perform sampling as soon as practical after sample purging at any time after the well has recovered sufficiently to sample, or within 24 hours after evacuation, if the well recharges slowly. If the well does not yield sufficient volume for all required laboratory analytical testing (including quality control), a decision should be made to prioritize analyses based on contaminants of concern at the site. If the well takes longer than 24 hours to recharge, the Project Manager should be consulted. The following two procedures outline sample collection activities for monitoring and domestic type wells.

Monitoring Wells

1. Purge the monitoring well in accordance with the Benchmark FOPs for Groundwater Purging Procedures Prior to Sample Collection or Low Flow (Minimal Drawdown) Groundwater Purging & Sampling Procedures. Perform sampling as soon as practical after purging at any time after the well has recovered sufficiently to sample, or within 24 hours after evacuation, if the well recharges slowly. If the well does not yield sufficient volume for all required laboratory analytical testing (including quality control), a decision should be made to prioritize analyses based on contaminants of concern at the site. Analyses will be prioritized in the order of the parameters volatilization sensitivity. After volatile organics have been collected, field parameters

must be measured from the next sample collected. If a well takes longer than 24 hours to recharge, the Project Manager should be consulted.

2. Sampling equipment that is not disposable or dedicated to the well will be decontaminated in accordance with the Benchmark Field Operating Procedure for Non-Disposable and Non-Dedicated Sampling Equipment Decontamination.

3. Calibrate all field meters (i.e., pH/Eh, turbidity, specific conductance, dissolved oxygen, PID etc.) in accordance with the Benchmark Field Operating Procedure for Calibration and Maintenance of the specific field meter.

4. Prepare the electronic water level indicator (e-line) in accordance with the procedures referenced in the Benchmark Field Operating Procedure for Groundwater Level Measurement and decontaminate the e-line probe and a lower portion of cable following the procedures referenced in the Benchmark Field Operating Procedure for Non-disposable and Non-dedicated Sampling Equipment Decontamination. Store the e-line in a protected area until use. This may include wrapping the e-line in clean plastic until the time of use.

5. Inspect the well/piezometer for signs of vandalism or damage and record condition on the Groundwater Field Form (sample attached). Specifically, inspect the integrity of the following: concrete surface seal, lock, protective casing and well cover, well casing and J-plug/cap. Report any irregular findings to the Project Manager.

6. Unlock and remove the well protective cap or cover and place on clean plastic to avoid introducing foreign material into the well.

7. Calibrate the photoionization detector (PID) in accordance with the Benchmark Field Operating Procedure for Calibration and Maintenance of Portable Photoionization Detector.

8. Monitor the well for organic vapors using a PID, as per the Work Plan. If a reading of greater than 5 ppm is recorded, the well should be allowed to vent until levels drop below 5 ppm before proceeding with purging. Record PID measurements on a well-specific Groundwater Field Form (sample attached).

9. Lower the e-line probe slowly into the monitoring well and record the measurement on a well-specific Groundwater Field Form (sample attached).

10. Groundwater samples will be collected directly from the sampling valve on the flow through cell (low-flow), discharge port of a standard pump assembly (peristaltic, pneumatic, submersible, or Waterra™ pump) or bailer (stainless steel, PVC or polyethylene) into appropriate laboratory provided containers. In low-yielding wells at which the flow through cell is not used, the samples may be collected using a disposable bailer.

11. If disposable polyethylene bailers are used, the bailer should be lowered *slowly* below the surface of the water to minimize agitation and volatilization. For wells that are known to produce turbid samples (values greater than 50 NTU), the bailer should be lowered and retrieved at a rate that limits surging of the well.

12. Sampling data will be recorded on a Groundwater Field Form (sample attached).

13. Pre-label all sample bottles in the field using a waterproof permanent marker in accordance with the Benchmark Sample Labeling, Storage and Shipment FOP. The following information, at a minimum, should be included on the label:

    - Project Number;
    - Sample identification code (as per project specifications);
    - Date of sample collection (mm, dd, yy);
    - Time of sample collection (military time only) (hh:mm);
    - Specify "grab" or "composite" sample type;
    - Sampler initials;
    - Preservative(s) (if applicable); and
    - Analytes for analysis (if practicable).

14. Collect a separate sample of approximately 200 ml into an appropriate container prior to collecting the first and following the last groundwater sample collected to measure the following field parameters:

Parameter	Units
Dissolved Oxygen	parts per million (ppm)

Specific Conductance	μmhos/cm or μS or mS
pH	pH units
Temperature	^{o}C or ^{o}F
Turbidity	NTU
Eh (*optional*)	mV
PID VOCs (*optional*)	ppm

Record all field measurements on a Groundwater Field Form (sample attached).

15. Collect samples into pre-cleaned bottles provided by the analytical laboratory with the appropriate preservative(s) added based on the volatilization sensitivity or suite of analytical parameters required, as designated in the **Sample Collection Order** section below.

16. Lower the e-line probe slowly into the monitoring well and record the measurement on a well-specific Groundwater Field Form (sample attached).

17. The samples will be labeled, stored and shipped in accordance with the Benchmark Field Operating Procedure for Sample Labeling, Storage and Shipment Procedures.

Domestic Supply Wells

1. Calculate or estimate the volume of water in the well. It is desirable to purge at least one casing volume before sampling. This is controlled, to some extent, by the depth of the well, well yield and the rate of the existing pump. If the volume of water in the well cannot be calculated, the well should be purged continuously for no less than 15 minutes.

2. Connect a sampling tap to an accessible fitting between the well and the pressure tank where practicable. A hose will be connected to the device and the hose discharge located 25 to 50 feet away. The well will be allowed to pump until the lines and one well volume is removed. Flow rate will be measured with a container of known volume and a stopwatch.

3. Place a clean piece of polyethylene or Teflon™ tubing on the sampling port and collect the samples in the order designated below and in the sample containers supplied by the laboratory for the specified analytes. ***DO NOT*** use standard garden hose to collect samples.

4. Sampling results and measurements will be recorded on a Groundwater Field Form (sample attached) as described in the previous section.

5. Collect samples into pre-cleaned bottles provided by the analytical laboratory with the appropriate preservative(s) added based on the volatilization sensitivity or suite of analytical parameters required, as designated in the **Sample Collection Order** section below.

6. The samples will be labeled, stored and shipped in accordance with the Benchmark Field Operating Procedure for Sample Labeling, Storage and Shipment Procedures.

SAMPLE COLLECTION ORDER

All groundwater samples, from monitoring wells and domestic supply wells, will be collected in accordance with the following.

1. Samples will be collected preferentially in recognition of volatilization sensitivity. The preferred order of sampling if no free product is present is:

    - Field parameters
    - Volatile Organic Compounds (VOCs)
    - Purgeable organic carbons (POC)
    - Purgeable organic halogens (POH)
    - Total Organic Halogens (TOX)
    - Total Organic Carbon (TOC)
    - Extractable Organic Compounds (i.e., BNAs, SVOCs, etc.)
    - Total petroleum hydrocarbons (TPH) and oil and grease
    - PCBs and pesticides
    - Total metals (Dissolved Metals)
    - Total Phenolic Compounds

- Cyanide
- Sulfate and Chloride
- Turbidity
- Nitrate (as Nitrogen) and Ammonia
- Preserved inorganics
- Radionuclides
- Unpreserved inorganics
- Bacteria
- Field parameters

2. Document the sampling procedures and related information in the Project Field Book and on a Groundwater Field Form (sample attached).

DOCUMENTATION

The three words used to ensure adequate documentation for groundwater sampling are accountability, controllability, and traceability. Accountability is undertaken in the sampling plan and answers the questions who, what, where, when, and why to assure that the sampling effort meets its goals. Controllability refers to checks (including QA/QC) used to ensure that the procedures used are those specified in the sampling plan. Traceability is documentation of what was done, when it was done, how it was done, and by whom it was done, and is found in the field forms, Project Field Book, and chain-of-custody forms. At a minimum, adequate documentation of the sampling conducted in the field consists of an entry in the Project Field Book (with sewn binding), field data sheets for each well, and a chain-of-custody form.

As a general rule, if one is not sure whether the information is necessary, it should nevertheless be recorded, as it is impossible to over-document one's fieldwork. Years may go by before the documentation comes under close scrutiny, so the documentation must be

capable of defending the sampling effort without the assistance or translation of the sampling crew.

The minimum information to be recorded daily with an indelible pen in the Project Field Book and/or field data sheets includes date and time(s), name of the facility, name(s) of the sampling crew, site conditions, the wells sampled, a description of how the sample shipment was handled, and a QA/QC summary. After the last entry for the day in the Project Field Book, the Field Team Leader should sign the bottom of the page under the last entry and then draw a line across the page directly under the signature.

PRECAUTIONS/RECOMMENDATIONS

The following precautions should be adhered to prior to and during sample collection activities:

- Field vehicles should be parked downwind (to avoid potential sample contamination concerns) at a minimum of 15 feet from the well and the engine turned off prior to PID vapor analysis and VOC sample collection.

- Ambient odors, vehicle exhaust, precipitation, or windy/dusty conditions can potentially interfere with obtaining representative samples. These conditions should be minimized and should be recorded in the field notes. Shield sample bottles from strong winds, rain, and dust when being filled.

- The outlet from the sampling device should discharge below the top of the sample's air/water interface, when possible. The sampling plan should specify how the samples will be transferred from the sample collection device to the sample container to minimize sample alterations.

- The order of sampling should be from the least contaminated to the most contaminated well to reduce the potential for cross contamination of sampling equipment (see the Sampling Plan or Work Plan).

- Samples should not be transferred from one sampling container to another.

- Sampling equipment must not be placed on the ground, because the ground may be contaminated and soil contains trace metals. Equipment and supplies should be removed from the field vehicle only when needed.

- Smoking and eating should not be allowed until the well is sampled and hands are washed with soap and water, due to safety and possibly sample contamination concerns. These activities should be conducted beyond a 15-foot radius of the well.

- No heat-producing or electrical instruments should be within 15 feet of the well, unless they are intrinsically safe, prior to PID vapor analysis.

- Minimize the amount of time that the sample containers remain open.

- Do not touch the inside of sample bottles or the groundwater sample as it enters the bottle. Disposable gloves may be a source of phthalates, which could be introduced into groundwater samples if the gloves contact the sample.

- Sampling personnel should use a new pair of disposable gloves for each well sampled to reduce the potential for exposure of the sampling personnel to contaminants and to reduce sample cross contamination. In addition, sampling personnel should change disposable gloves between purging and sampling operations at the same well.

- Sampling personnel should not use perfume, insect repellent, hand lotion, etc., when taking groundwater samples. If insect repellent must be used, then sampling personnel should not allow samples or sampling equipment

to contact the repellent, and it should be noted in the documentation that insect repellent was used.

- Complete the documentation of the well. A completed assemblage of paperwork for a sampling event includes the completed field forms, entries in the Project Field Book (with a sewn binding), transportation documentation (if required), and possibly chain-of-custody forms.

ATTACHMENTS

Groundwater Field Form (sample)

REFERENCES

1. Wilson, Neal. *Soil Water and Ground Water Sampling*, 1995

Benchmark FOPs:

007 Calibration and Maintenance of Portable Dissolved Oxygen Meter
008 Calibration and Maintenance of Portable Field pH/Eh Meter
009 Calibration and Maintenance of Portable Field Turbidity Meter
011 Calibration and Maintenance of Portable Photoionization Detector
012 Calibration and Maintenance of Portable Specific Conductance Meter
022 Groundwater Level Measurement
023 Groundwater Purging Procedures Prior to Sample Collection (optional)
031 Low Flow (Minimal Drawdown) Groundwater Purging & Sampling Procedures (optional)
040 Non-Disposable and Non-Dedicated Sampling Equipment Decontamination
046 Sample Labeling, Storage and Shipment Procedures

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

GROUNDWATER FIELD FORM

Project Name: Date:

Location: Project No.: Field Team:

Well No.			Diameter (inches):			Sample Time:			
Product Depth (fbTOR):			Water Column (ft):			DTW when sampled:			
DTW (static) (fbTOR):			Casing Volume:			Purpose: ☐ Development ☐ Sample			
Total Depth (fbTOR):			Purge Volume (gal):			Purge Method:			
Time	Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
	0 Initial								
	1								
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	9								
	10								
Sample Information:			Date: (if different from above)						
	S1								
	S2								

SAMPLE

Well No.			Diameter (inches):			Sample Time:			
Product Depth (fbTOR):			Water Column (ft):			DTW when sampled:			
DTW (static) (fbTOR):			Casing Volume:			Purpose: ☐ Development ☐ Sample			
Total Depth (fbTOR):			Purge Volume (gal):			Purge Method:			
Time	Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
	0 Initial								
	1								
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	9								
	10								
Sample Information:			Date: (if different from above)						
	S1								
	S2								

REMARKS:

Note: All water level measurements are in feet, distance from top of riser.

Volume Calculation

Diam.	Vol. (g/ft)
1"	0.041
2"	0.163
4"	0.653
6"	1.469

Stabilization Criteria

Parameter	Criteria
pH	± 0.1 unit
SC	± 3%
Turbidity	± 10%
DO	± 0.3 mg/L
ORP	± 10 mV

PREPARED BY:

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

FIELD OPERATING PROCEDURES

Hollow Stem Auger Drilling Procedures

FOP 026.1

HOLLOW STEM AUGER (HSA) DRILLING PROCEDURES

PURPOSE

This guideline presents a method for drilling a borehole through unconsolidated materials, including soils or overburden, and consolidated materials, including bedrock.

PROCEDURE

The following procedure will be used to drill a borehole for sampling and/or well installation, using hollow-stem auger methods and equipment.

1. Follow Benchmark's Field Operating Procedure for Drill Site Selection Procedure prior to implementing any drilling activity.

2. Perform drill rig safety checks with the driller by completing the Drilling Safety Checklist form (sample attached).

3. Conduct tailgate health and safety meeting with project team and drillers by completing the Tailgate Safety Meeting Form.

4. Calibrate air-monitoring equipment in accordance with the appropriate Benchmark's Field Operating Procedures (i.e., PID, FID, combustible gas meter) or manufacturer's recommendations for calibration of field meters (i.e., DataRAM 4 Particulate Meter).

5. Ensure all drilling equipment (i.e., augers, rods, split-spoons) appear clean and free of soil prior to initiating any subsurface intrusion. Decontamination of drilling equipment should be in accordance with Benchmark's FOP: Drilling and Excavation Equipment Decontamination Procedures.

6. Mobilize the auger rig to the site and position over the borehole.

7. Level and stabilize the rig using the rig jacks, and recheck the rig location against the planned drilling location. If necessary, raise the jacks and adjust the rig position.

8. Place a metal or plywood auger pan over the borehole location to collect the auger cuttings. This auger pan will be equipped with a 12-inch nominal diameter hole for auger passage. As an alternative, a piece of polyethylene tarp may be used as a substitute.

9. Advance augers into the subsurface. For sampling or pilot-hole drilling, nominal 8-inch outside diameter (OD) augers should be used. The boring diameter will be approved by the Benchmark field supervisor.

10. Collect soil samples via split spoon sampler in accordance with Benchmark's Field Operating Procedure for Split Spoon Sampling.

11. Check augers periodically during drilling to ensure the boring is plumb. Adjust rig position as necessary to maintain plumb.

12. Continue drilling until reaching the assigned total depth, or until auger refusal occurs. Auger refusal is when the drilling penetration drops below 0.1 feet per 10 minutes, with the full weight of the rig on the auger bit, and a center bit (not center plug) in place.

13. Plug and abandon boreholes not used for well installation in accordance with Benchmark's Field Operating Procedure for Abandonment of Borehole.

OTHER PROCEDURAL ISSUES

- Slip rings may be used for lifting a sampling or bit string. The string will not be permitted to extend more than 15 feet above the mast crown.

- Borings will not be over drilled (rat holed) without the express permission of the Benchmark field supervisor. All depth measurements should be accurate to the nearest 0.1 foot, to the extent practicable.

- Potable water may be placed in the auger stem if critically necessary for borehole control or to accomplish sampling objectives and must be approved by the Benchmark Project Manager and/or NYSDEC Project Manager. Upon approval,

the potable water source and quantity used will be documented in the Project Field Book and subsequent report submittal.

ATTACHMENTS

Drilling Safety Checklist (sample)
Tailgate Safety Meeting Form (sample)

REFERENCES

Benchmark FOPs:

001 *Abandonment of Borehole Procedures*
010 *Calibration and Maintenance of Portable Flame Ionization Detector*
011 *Calibration and Maintenance of Portable Photoionization Detector*
017 *Drill Site Selection Procedure*
018 *Drilling and Excavation Equipment Decontamination Procedures*
058 *Split Spoon Sampling Procedures*

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

DRILLING SAFETY CHECKLIST

Project: **Supplemental Phase II RFI/ICMs**	Date:
Project No.: **0041-009-500**	Drilling Company:
Client: **RealCo., Inc.**	Drill Rig Type:

ITEMS TO CHECK	OK	ACTION NEEDED
"Kill switches" installed by the manufacturer are in operable condition and all workers at the drill site are familiar with their location and how to activate them?		
"Kill switches" are accessible to workers on both sides of the rotating stem? NOTE: Optional based on location and number of switches provided by the manufacturer.		
Cables on drill rig are free of kinks, frayed wires, "bird cages" and worn or missing sections?		
Cables are terminated at the working end with a proper eye splice, either swaged Coupling or using cable clamps?		
Cable clamps are installed with the saddle on the live or load side? Clamps should not be alternated and should be of the correct size and number for the cable size to which it is installed. Clamps are complete with no missing parts?		
Hooks installed on hoist cables are the safety type with a functional latch to prevent accidental separation?		
Safety latches are functional and completely span the entire throat of the hook and have positive action to close the throat except when manually displaced for connecting or disconnecting a load?		
Drive shafts, belts, chain drives and universal joints shall be guarded to prevent accidental insertion of hands and fingers or tools?		
Outriggers shall be extended prior to and whenever the boom is raised off its cradle. Hydraulic outriggers must maintain pressure to continuously support and stabilize the drill rig even while unattended.		
Outriggers shall be properly supported on the ground surface to prevent settling into the soil.		
Controls are properly labeled and have freedom of movement. Controls should not be blocked or locked in an action position.		
Safeties on any device shall not be bypassed or neutralized.		
Controls shall be operated smoothly and cables and lifting devices shall not be jerked or operated erratically to overcome resistance.		
Slings, chokers and lifting devices are inspected before using and are in proper working order? Damaged units are removed from service and are properly tagged?		
Shackles and clevises are in proper working order and pins and screws are fully inserted before placing under a load?		
High-pressure hoses have a safety (chain, cable or strap) at each end of the hose section to prevent whipping in the event of a failure?		
Rotating parts of the drill string shall be free of sharp projections or hooks, which could entrap clothing or foreign objects?		
Wire ropes should not be allowed to bend around sharp edges without cushion material.		
The exclusion zone is centered over the borehole and the radius is equal or greater than the boom height?		

SAMPLE

ITEMS TO CHECK	OK	ACTION NEEDED

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

DRILLING SAFETY CHECKLIST

Project: **Supplemental Phase II RFI/ICMs**	Date:
Project No.: **0041-009-500**	Drilling Company:
Client: **RealCo., Inc.**	Drill Rig Type:

ITEMS TO CHECK	OK	ACTION NEEDED
The work area around the borehole shall be kept clear of trip hazards and walking surfaces should be free of slippery material.		
Workers shall not proceed higher than the drilling deck without a fall restraining device and must attach the device in a manner to restrict fall to less than 6 feet.		
A fire extinguisher of appropriate size shall be immediately available to the drill crew. The drill crew shall have received annual training on proper use of the fire extinguisher.		
29 CFR 1910.333 © (3) Except where electrical distribution and transmission lines have been de-energized and visibly grounded, drill rigs will be operated proximate to, under, by, or near power lines only in accordance with the following: .333 © (3) (ii) 50 kV or less -minimum clearance is 10 ft. For 50 kV or over - 10ft. Plus ½ in. For each additional kV **Benchmark Policy: Maintain 20 feet clearance**		
29 CFR 1910.333 © (3) (iii) While the rig is in transit with the boom in the down position, clearance from energized power lines will be maintained as follows: Less than 50 kV - 4 feet 50 to 365 kV - 10 feet 365 to 720 kV - 16 feet		

SAMPLE

Name: _____ (printed)

Signed: _____ Date: _____

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TAILGATE SAFETY MEETING FORM

Project Name: Date: Time:
Project Number: Client:
Work Activities:

HOSPITAL INFORMATION:

Name:
Address: *City:* *State:* *Zip:*
Phone No.: *Ambulance Phone No.*

SAFETY TOPICS PRESENTED:

Chemical Hazards:

Physical Hazards: Slips, Trips, Falls

PERSONAL PROTECTIVE EQUIPMENT:

Activity:	*PPE Level:*	A	B	C	D
Activity:	*PPE Level:*	A	B	C	D
Activity:	*PPE Level:*	A	B	C	D
Activity:	*PPE Level:*	A	B	C	D
Activity:	*PPE Level:*	A	B	C	D

New Equipment:

Other Safety Topic (s): Environmental Hazards (aggressive fauna)
Eating, drinking, use of tobacco products is prohibited in the Exclusion Zone (EZ)

SAMPLE

ATTENDEES

Name Printed	Signatures

Meeting conducted by:

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

FIELD OPERATING PROCEDURES

Low-Flow (Minimal Drawdown) Groundwater Purging & Sampling Procedure

FOP 031.1

LOW FLOW (MINIMAL DRAWDOWN) GROUNDWATER PURGING & SAMPLING PROCEDURES

PURPOSE

This procedure describes the methods used for performing low flow (minimal drawdown) purging, also referred to as micro-purging, at a well prior to groundwater sampling to obtain a representative sample from the water-bearing zone. This method of purging is used to minimize the turbidity of the produced water. This may increase the representativeness of the groundwater samples by avoiding the necessity of filtering suspended solids in the field prior to preservation of the sample.

Well purging is typically performed immediately preceding groundwater sampling. The sample should be collected as soon as the parameters measured in the field (i.e., pH, specific conductance, dissolved oxygen, Eh, temperature, and turbidity) have stabilized.

PROCEDURE

Allow approximately 3 to 10 days following well development for groundwater to return to static conditions before performing low-flow purge and sample activities at any well location. Conversely, perform low-flow sampling as soon as purged groundwater has stabilized. If the well does not yield sufficient volume (i.e., cannot maintain a constant water level during purging) for low-flow purge and sampling, then an alternative method must be performed in accordance with TurnKey's Groundwater Purging Procedures Prior to Sample Collection FOP.

1. Water samples should not be taken immediately following well development. Sufficient time should be allowed to stabilize the groundwater flow regime in the vicinity of the monitoring well. This lag time will depend on site conditions and methods of installation but may exceed one week.

2. Prepare the electronic water level indicator (e-line) in accordance with the procedures referenced in the Benchmark's Groundwater Level Measurement FOP and decontaminate the e-line probe and a lower portion of cable following the procedures referenced in the Benchmark's Non-disposable and Non-dedicated Sampling Equipment Decontamination FOP. Store the e-line in a protected area until use. This may include wrapping the e-line in clean plastic until the time of use.

3. Calibrate all sampling devices and monitoring equipment in accordance with manufacturer's recommendations, the site Quality Assurance Project Plan (QAPP) and/or Field Sampling Plan (FSP). Calibration of field instrumentation should be followed as specified in Benchmark's Calibration and Maintenance FOP for each individual meter.

4. Inspect the well/piezometer for signs of vandalism or damage and record condition on the Groundwater Field Form (sample attached). Specifically, inspect the integrity of the following: concrete surface seal, lock, protective casing and well cover, well casing and J-plug/cap. Report any irregular findings to the Project Manager.

5. Unlock and remove the well protective cap or cover and place on clean plastic to avoid introducing foreign material into the well.

6. Monitor the well for organic vapors using a PID, as per the Work Plan. If a reading of greater than 5 ppm is recorded, the well should be allowed to vent until levels drop below 5 ppm before proceeding with purging.

7. Lower the e-line probe slowly into the monitoring well and record the initial water level in accordance with the procedures referenced in Benchmark's Groundwater Level Measurement FOP. Refer to the construction diagram for the well to identify the screened depth.

8. Decontaminate all non-dedicated pump and tubing equipment following the procedures referenced in the Benchmark's Non-disposable and Non-dedicated Sampling Equipment Decontamination FOP.

9. Lower the purge pump or tubing (i.e., low-flow electrical submersible, peristaltic, etc.) slowly into the well until the pump/tubing intake is approximately in the middle of the screened interval. Rapid insertion of the pump will increase the turbidity of well water, and can increase the required purge time. This step can be eliminated if dedicated tubing is already within the well.

   Placement of the pump close to the bottom of the well will cause increased entrainment of solids, which may have settled in the well over time. Low-flow purging has the advantage of minimizing mixing between the overlying stagnant casing water and water within the screened interval. The objective of low-flow purging is to maintain a purging rate, which minimizes stress (drawdown) of the water level in the well. Low-flow refers to the velocity with which water enters the pump intake and that is imparted to the formation pore water in the immediate vicinity of the well screen.

10. Lower the e-line back down the well as water levels will be frequently monitored during purge and sample activities.

11. Begin pumping to purge the well. The pumping rate should be between 100 and 500 milliliters (ml) per minute (0.03 to 0.13 gallons per minute) depending on site hydrogeology. Periodically check the well water level with the e-line adjusting the flow rate as necessary to stabilize drawdown within the well. If possible, a steady flow rate should be maintained that results in a stabilized water level (drawdown of 0.3 feet or less). If the water level exceeds 2 feet below static and declining, slow the purge rate until the water level generally stabilizes. Record each pumping rate and water level during the event.

    The low flow rate determined during purging will be maintained during the collection of analytical samples. At some sites where geologic heterogeneities are sufficiently different within the screened interval, high conductivity zones may be preferentially sampled.

12. Measure and record field parameters (pH, specific conductance, Eh, dissolved oxygen (DO), temperature, and turbidity) during purging activities. In lieu of measuring all of the parameters, a minimum subset could be limited to pH, specific conductance, and turbidity or DO. A reduction in the field parameter list must be approved by the Project Manager and/or the NYSDEC Project Manager.

    Water quality indicator parameters should be used to determine purging needs prior to sample collection in each well. Stabilization of indicator parameters should be used to determine when formation water is first encountered during purging. In general, the order of stabilization is pH, temperature, and specific conductance, followed by Eh, DO and turbidity. Performance criteria for determination of stabilization should be based on water-level drawdown, pumping rate and equipment specifications for measuring indicator parameters. An in-line flow through cell to continuously measure the above parameters may be used. The in-line device should be disconnected or bypassed during sample collection.

13. Purging will continue until parameters of water quality have stabilized. Record measurements for field indicator parameters (including water levels) at regular intervals during purging. The stability of these parameters with time can be used to guide the decision to discontinue purging. Proper adjustments must be made to stabilize the flow rate as soon as possible.

14. Record well purging and sampling data in the Project Field Book or on the Groundwater Field Form (sample attached). Measurements should be taken approximately every three to five minutes, or as merited given the rapidity of change.

15. Purging is complete when field indicator parameters stabilize. Stabilization is achieved after all field parameters have stabilized for three successive readings. Three successive readings should be within ± 0.1 units for pH, ± 3% for specific conductance, ± 10 mV for Eh, and ± 10% for turbidity and dissolved oxygen. These stabilization guidelines are provided for rough estimates only,

actual site-specific knowledge may be used to adjust these requirements higher or lower.

An in-line water quality measurement device (e.g., flow-through cell) should be used to establish the stabilization time for several field parameters on a well-specific basis. Data on pumping rate, drawdown and volume required for parameter stabilization can be used as a guide for conducting subsequent sampling activities.

16. Collect all project-required samples from the discharge tubing at the flow rate established during purging in accordance with Benchmark's Groundwater Sample Collection Procedures FOP. **If a peristaltic pump and dedicated tubing is used, collect all project-required samples from the discharge tubing as stated before, however volatile organic compounds should be collected in accordance with the procedure presented in the next section.** Continue to maintain a constant flow rate such that the water level is not drawn down as described above. Fill sample containers with minimal turbulence by allowing the ground water to flow from the tubing along the inside walls of the container.

17. If field filtration is recommended as a result of increased turbidity greater than 50 NTU, an in-line filter equipped with a 0.45-micron filter should be utilized. Collection of a filtered sample must be accompanied by an unfiltered sample.

18. Replace the dedicated tubing down the well taking care to avoid contact with the ground surface.

19. Restore the well to its capped/covered and locked condition.

20. Upon purge and sample collection completion, slowly lower the e-line to the bottom of the well/piezometer. Record the total depth to the nearest 0.01-foot and compare to the previous total depth measurement. If a significant discrepancy exists, re-measure the total depth. Record observations of purge water to determine whether the well/piezometer had become silted due to inactivity or damaged (i.e., well sand within purge water). Upon confirmation

of the new total depth and determination of the cause (i.e., siltation or damage), notify the Project Manager following project field activities.

PERISTALTIC PUMP VOC SAMPLE COLLECTION PROCEDURE

The collection of VOCs from a peristaltic pump and dedicated tubing assembly shall be collected using the following procedure.

1. Once all other required sample containers have been filled, turn off the peristaltic pump. The negative pressure effects of the pump head have not altered groundwater remaining within the dedicated tubing assembly and as such, this groundwater can be collected for VOC analysis.

2. While maintaining the pressure on the flexible tubing within the pump head assembly, carefully remove and coil the polyethylene tubing from the well; taking care to prevent the tubing from coming in contact with the ground surface and without allowing groundwater to escape or drain from the tubing intake.

3. Once the polyethylene tubing is removed, turn the variable speed control to zero and reverse the pump direction.

4. Slowly increase the pump rate allowing the groundwater within the polyethylene tubing to be "pushed" out of the intake end (i.e., positive displacement) making sure the groundwater within the tubing is not "pulled" through the original discharge end (i.e., negative displacement). Groundwater pulled through the pump head assembly CANNOT be collected for VOC analysis.

5. Slowly fill each VOC vial by holding the vial at a 45-degree angle and allowing the flowing groundwater to cascade down the side until the vial is filled with as minimal disturbance as possible. As the vial fills, slowly rotate the vial to vertical. **DO NOT OVERFILL THE VIAL, AS THE PRESERVATIVE WILL BE LOST.** The vial should be filled only enough so that the water creates a slight meniscus at the vial mouth.

6. Cap the VOC vials leaving no visible headspace (i.e., air-bubbles). Gently tap each vial against your hand checking for air bubbles.

7. If an air bubble is observed, slowly remove the cap and repeat Steps 5 and 6.

ATTACHMENTS

Groundwater Field Form (sample)

REFERENCES

United States Environmental Protection Agency, 540/S-95/504, 1995. *Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures.*

Benchmark FOPs:

007 *Calibration and Maintenance of Portable Dissolved Oxygen Meter*
008 *Calibration and Maintenance of Portable Field pH/Eh Meter*
009 *Calibration and Maintenance of Portable Field Turbidity Meter*
011 *Calibration and Maintenance of Portable Photoionization Detector*
012 *Calibration and Maintenance of Portable Specific Conductance Meter*
022 *Groundwater Level Measurement*
024 *Groundwater Sample Collection Procedures*
040 *Non-Disposable and Non-Dedicated Sampling Equipment Decontamination*
046 *Sample Labeling, Storage and Shipment Procedures*

LOW FLOW (MINIMAL DRAWDOWN) GROUNDWATER PURGING & SAMPLING PROCEDURES

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

GROUNDWATER FIELD FORM

Project Name: Date:

Location: Project No.: Field Team:

Well No.			Diameter (inches):			Sample Time:			
Product Depth (fbTOR):			Water Column (ft):			DTW when sampled:			
DTW (static) (fbTOR):			Casing Volume:			Purpose: ☐ Development ☐ Sample			
Total Depth (fbTOR):			Purge Volume (gal):			Purge Method:			
Time	Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
	0 Initial								
	1								
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	9								
	10								
Sample Information:			Date: (if different from above)						
	S1								
	S2								

Well No.			Diameter (inches):			Sample Time:			
Product Depth (fbTOR):			Water Column (ft):			DTW when sampled:			
DTW (static) (fbTOR):			Casing Volume:			Purpose: ☐ Development ☐ Sample			
Total Depth (fbTOR):			Purge Volume (gal):			Purge Method:			
Time	Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
	0 Initial								
	1								
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	9								
	10								
Sample Information:			Date: (if different from above)						
	S1								
	S2								

SAMPLE

REMARKS:

Note: All water level measurements are in feet, distance from top of riser.

Volume Calculation

Diam.	Vol. (g/ft)
1"	0.041
2"	0.163
4"	0.653
6"	1.469

Stabilization Criteria

Parameter	Criteria
pH	± 0.1 unit
SC	± 3%
Turbidity	± 10%
DO	± 0.3 mg/L
ORP	± 10 mV

PREPARED BY:

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FIELD OPERATING PROCEDURES

Management of Investigative-Derived Waste (IDW)

FOP 032.1

MANAGEMENT OF INVESTIGATION-DERIVED WASTE (IDW)

PURPOSE

The purpose of these guidelines is to ensure the proper holding, storage, transportation, and disposal of materials generated from field investigation activities that may contain hazardous wastes. Investigation-derived waste (IDW) includes the following:

- Drill cuttings, discarded soil samples, drilling mud solids, and used sample containers.
- Well development and purge waters and discarded groundwater samples.
- Decontamination waters and associated solids.
- Soiled disposable personal protective equipment (PPE).
- Used disposable sampling equipment.
- Used plastic sheeting and aluminum foil.
- Other equipment or materials that either contain or have been in contact with potentially impacted environmental media.

Because these materials may contain regulated chemical constituents, they must be managed as a solid waste. This management may be terminated if characterization analytical results indicate the absence of these constituents.

PROCEDURE

1. Contain all investigation-derived wastes in Department of Transportation (DOT)-approved 55-gallon drums, roll-off boxes, or other containers suitable for the wastes.

2. Contain wastes from separate borings or wells in separate containers (i.e. do not combine wastes from several borings/wells in a single container, unless it is a container used specifically for transfer purposes, or unless specific permission to do so has been provided by the Benchmark Field Team Leader. Unused samples from surface sample locations within a given area may be combined.

3. To the extent practicable, separate solids from drilling muds, decontamination waters, and similar liquids. Place solids within separate containers.

4. Transfer all waste containers to a staging area. Access to this area will be controlled. Waste containers must be transferred to the staging area as soon as practicable after the generating activity is complete.

5. Pending transfer, all containers will be covered and secured when not immediately attended.

6. Label all containers with regard to contents, origin, date of generation, using Benchmark's IDW container label (sample attached). Use indelible ink for all labeling.

7. Complete the Investigative Derived Waste Container Log (sample attached) as waste containers are labeled in order to track and inventory project waste. Leave a copy of the log with the site manager or fax copy to the owner/operator as necessary.

8. Collect samples for waste characterization purposes, or use boring/well sample analytical data for characterization.

9. For wastes determined to be hazardous in character, **be aware of accumulation time limitations**. Coordinate the disposal of these wastes with the plant manager/owner/operator, if applicable.

10. Upon Property Owner, Project Manager, and/or NYSDEC Project Manager approval, dispose of investigation-derived wastes as follows:

- Soil, water, and other environmental media for which analysis does not detect organic constituents, and for which inorganic constituents are at levels that meet the Site's cleanup objectives, may be spread on the Property or otherwise treated as a non-waste material. Disposal quantity and on-site location will be documented on Project Field Books and in the project report submittal.

- Soil, water, and other environmental media in which organic compounds are detected or metals are present above the Site's cleanup objectives will be disposed off-site in accordance with applicable state and federal regulations. Disposal quantity and off-site location will be documented on Project Field Books and in the project report submittal.

- Personal protective equipment, disposable bailers, and similar equipment may be disposed as municipal waste, unless waste characterization results mandate otherwise.

WASTE STORAGE MANAGEMENT

Hazardous materials generated on site should be temporarily stored in a secure location that is under the control of the owner/operator or does not allow for vandalism (i.e., within a locked building structure or within a locked fenced in area). A waste-staging area should be designated on-site by the Project Manager in conjunction with the owner/operator.

ATTACHMENTS

Investigation Derived Waste Container Log (sample)
Investigation Derived Waste Container Label (sample)

REFERENCES

None

MANAGEMENT OF INVESTIGATION-DERIVED WASTE (IDW)

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

INVESTIGATION DERIVED WASTE CO

Project Name: Location:

Project Number: Personnel:

Container		Contents	Date		Staging Location	Date Sampled	Co
Number	Description		Started	Ended			

SAMPLE

Prepared By:

Signed:

IDW Container Label (sample):

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Project Name:
Project Number:

Container I.D.:
Contents/Matrix:
Estimated Quantity:
Date of Generation:
Date of Sample Collection:

Contact Name:
Contact Phone Number:

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FIELD OPERATING PROCEDURES

Monitoring Well Construction for Hollow Stem Auger Boreholes

FOP 033.0

MONITORING WELL CONSTRUCTION FOR HOLLOW STEM AUGER BOREHOLES

PURPOSE

Wells will be installed within selected boreholes for the purpose of evaluating groundwater characteristics. Well installation procedures depend upon the drilling method. This procedure describes well construction and installation for boreholes drilled using the hollow stem auger method. Refer to the Benchmark's Hollow Stem Auger Drilling Procedures FOP. Nominal dimensions and materials for the well are shown in the attached well construction diagram.

PROCEDURE

1. Advance borehole in accordance with the Benchmark's Hollow Stem Auger Drilling Procedure FOP to the required depth. The nominal inside diameter (ID) of the auger stem used should be at least 2 inches larger than the outside diameter (OD) of the riser and screen selected for the well installation. Record the monitoring well construction on the Field Borehole/Monitoring Well Installation Log (sample attached) (see Documentation Requirements for Drilling and Well Installation FOP).

2. Remove the drill rods and center bit/plug from the auger stem and verify borehole depth using weighted measuring tape.

3. In the event of an over drill (i.e. borehole depth is more than one foot greater than desired base of screen depth), use bentonite chips poured through the auger stem to seal the over drilled portion of the borehole. Be sure to note bentonite chip thickness on Field Borehole/Monitoring Well Installation Log.

4. Add a maximum of 6 inches of filter pack material through the auger stem to the base of the borehole. (Note: This step may be avoided if dense non-aqueous phase liquids are suspected to be present and it is desirable to have the screen and/or sump at the base of the borehole.)

5. Measure the length of the well string (i.e. riser and screen), and lower the well string into the well assembly to the desired depth. All measurements during the well installation process will be accurate to 0.1 foot.

6. Surface pour filter pack material into the annulus between the well and the auger stem as the augers are gradually withdrawn from the borehole. Use a weighted tape to confirm that the level of sand is maintained within the augers at all times. Record material volumes used.

7. After filter pack materials are brought to the required level, surface pour bentonite chips or pellets into the annulus between the well and the auger stem to form the filter pack seal. If necessary to avoid bridging, delayed hydration (coated) pellets may be used. Record the volume of material used.

8. Allow the bentonite chips/pellets to adequately hydrate for approximately 30 to 45-minutes. Cap or cover the well top of riser.

9. Mix cement/bentonite grout to a smooth consistency using a centrifugal or reciprocating pump. Do not hand mix. All water used must be potable quality. Record the volume of water used.

10. Fill the remaining annulus between the well and the auger stem with grout by surface pouring or pumping, and begin withdrawal of the auger string. Periodically top the auger string off with additional grout. If groundwater is present within the annulus above the bentonite chip/pellet seal, cement/bentonite grout will be pressure tremie grouted from bottom to top in order to displace groundwater from the borehole.

11. When the auger string is withdrawn, center the upper portion of the well riser within the borehole, and place drums or barricades around the well for protection while the grout cures. Place and lock a security cap (i.e., J-plug) in the opening of the well riser.

12. Leave the well undisturbed for at least 24 hours to allow the grout to cure. If excessive grout fallback occurs, top off as necessary with bentonite chips or additional grout.

13. Construct the surface completion as shown in the attached Typical Monitoring Well Detail (Figure 1). Select flush completions for all locations in active operational or high traffic areas, or in other areas where an above grade completion would be undesirable. Use aboveground completions in all other areas.

14. Place a dedicated lock on the well or protective casing, and keep well locked when not actively attended.

15. Permanently label the well with the appropriate well identifier as determined by the Project Manager or specified in the Work Plan.

16. Permanently mark a survey location on the north side at the top of the casing with a saw cut. Survey all wells for horizontal location and elevation, using a surveyor licensed by the State of New York. Coordinates and elevations will be provided in a coordinate system consistent with previous well surveys at the Site. Information obtained will include location (x and y) of the well, and elevation (z) of the ground surface, the pad, and the top of riser.

17. Develop the well as described in the Benchmark Field Operating Procedure for Monitoring Well Development.

18. Manage all waste materials generated during well installation and development as described in the Benchmark Field Operating Procedure for Management of Investigation Derived Waste.

ATTACHMENTS

Field Borehole/Monitoring Well Installation Log (sample)
Typical Monitoring Well Detail (Figure 1)

REFERENCES

Benchmark FOPs:

015 Documentation Requirements for Drilling and Well Installation
026 Hollow Stem Auger Drilling Procedures
032 Management of Investigation Derived Waste
036 Monitoring Well Development Procedures

MONITORING WELL CONSTRUCTION FOR HOLLOW STEM AUGER BOREHOLES

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

FIELD BOREHOLE/MONITORING WELL INSTALLATION LOG

PROJECT:		**Log of Well No.:**		
BORING LOCATION:		ELEVATION AND DATUM:		
DRILLING CONTRACTOR:		DATE STARTED:		DATE FINISHED:
DRILLING METHOD:		TOTAL DEPTH:		SCREEN INTERVAL:
DRILLING EQUIPMENT:		DEPTH TO WATER: FIRST:	COMPL.:	CASING:
SAMPLING METHOD:		LOGGED BY:		
HAMMER WEIGHT:	DROP:	RESPONSIBLE PROFESSIONAL:		REG. NO.

Depth (fbgs)	SAMPLES: Sample No.	Sample	Blows (per 6")	SPT N-Value	Recovery	PID Scan (ppm)	SAMPLE DESCRIPTION USCS Classification: Color, Moisture Condition, % of Soil Type, Plasti Fabric, Bedding, Weathering/Fracturing, Odor, Oth SURFACE ELEVATION (FMSL):	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS

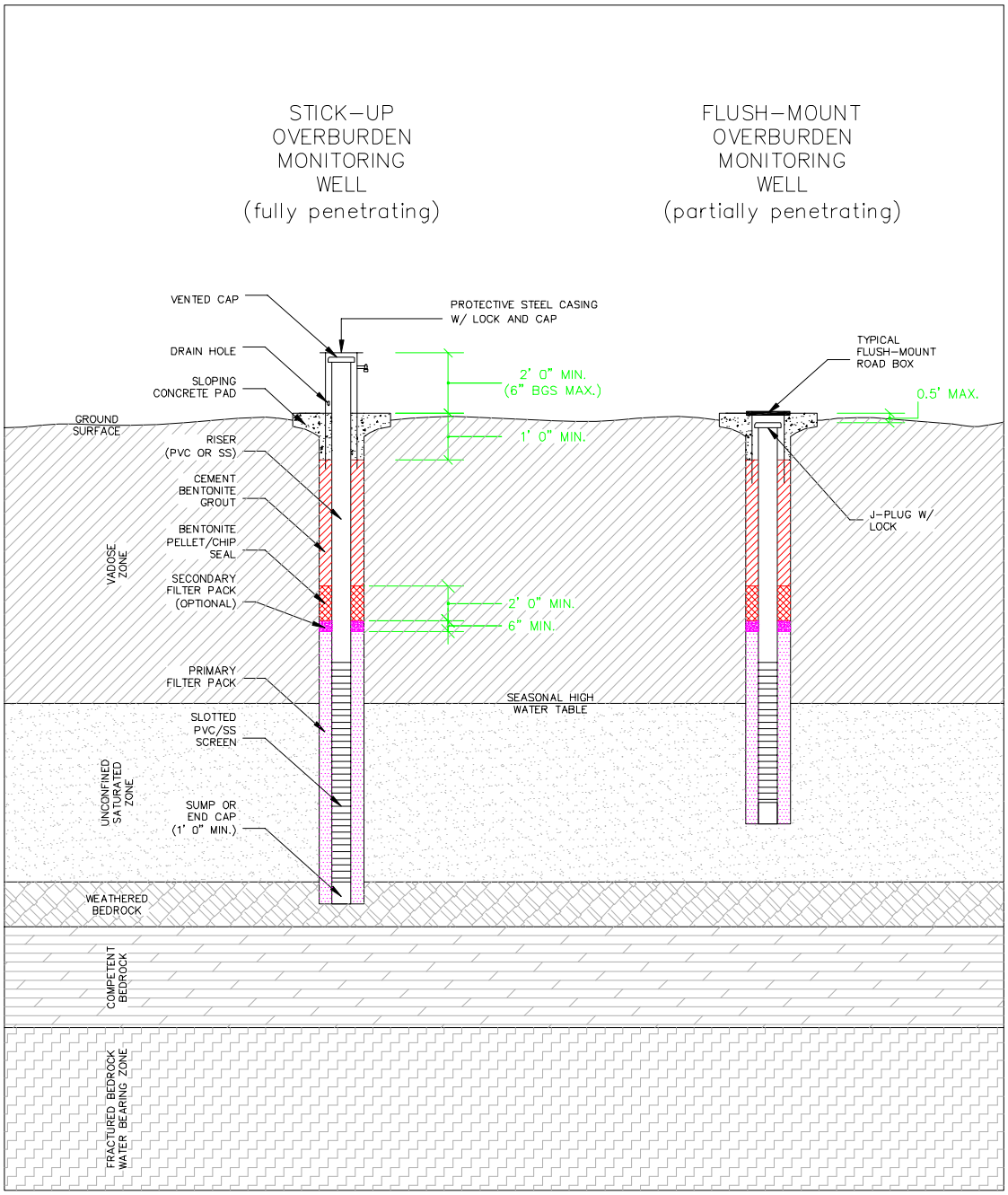
SAMPLE

Project No:	Benchmark Environmental Engineering & Science, PLLC	Figure

FOP 033.0

MONITORING WELL CONSTRUCTION FOR HOLLOW STEM AUGER BOREHOLES

FIGURE 1



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FIELD OPERATING PROCEDURES

Monitoring Well Development Procedures

FOP 036.0

MONITORING WELL DEVELOPMENT PROCEDURES

PURPOSE

This procedure describes the methods for the development of newly installed monitoring wells and re-development of existing monitoring wells that have been inactive for an extended period of time (i.e., one year or more). Monitoring wells are developed after installation in order to remove introduced water and drilling fluids, reduce the turbidity of the water, and improve the hydraulic communication between the well and the water-bearing formation. Well development will not commence until the annular grout seal has cured, but will be performed within ten calendar days of well installation.

PROCEDURE

1. All well development will include surge blocking or false bailing with one or more of the following fluid removal methods. Well development activities may include:

    - Bailing
    - Air Lifting
    - Submersible Pumping
    - Other methods as approved by the Benchmark Field Team Leader.
    - The appropriate water removal method will be selected based on water level depth and anticipated well productivity.

2. Assemble and decontaminate equipment (if necessary), and place in the well. Reference the Benchmark Field Operating Procedure for Non-Disposable and Non-Dedicated Sampling Equipment Decontamination.

3. Alternate the use of agitation methods with water removal methods, using the former to suspend solids in the well water, and the latter to remove the turbid water. For example, use a vented surge block to agitate the well, moving up and down within the screened interval and then use a pump to clear the well. A bailer may be used for both purposes, by surging with the bailer (false

bailing) for a period within the screened interval, then bailing a volume of water from the well.

4. When using surging methods, initiate this activity gradually, with short (2 to 3 feet) strokes. After several passes across the screened interval, increase the speed and length of the surge strokes.

5. Continue development until the following objectives are achieved:

   - Field parameters stabilize to the following criteria:
     - Dissolved Oxygen: ± 0.3 mg/L
     - Turbidity: ± 10%
     - Specific Conductance: ± 3%
     - ORP: ± 10 mV
     - pH: ± 0.1 units
   - The well will generate non-turbid water during continued pumping typically less than 50 NTU.
   - A minimum of 10 well volumes has been evacuated from the well.
   - In the case of lost water during drilling activities, the volume of water removed exceeds twice the volume of water lost to the formation during the drilling process, as indicated by the water balance.

6. Document the development methods, volumes, field parameter measurements, and other observations on the attached Benchmark Groundwater Well Development Log (sample attached).

ATTACHMENTS

Groundwater Well Development Log (sample)

REFERENCES

Benchmark FOPs:
040 Non-Disposable and Non-Dedicated Sampling Equipment Decontamination

MONITORING WELL DEVELOPMENT PROCEDURES

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

GROUNDWATER WELL DEVELOPMENT LOG

Project Name:	WELL NUMBER:
Project Number:	Sample Matrix:
Client:	Weather:

WELL DATA:

DATE:	TIME:
Casing Diameter (inches):	Casing Material:
Screened interval (fbTOR):	Screen Material:
Static Water Level (fbTOR):	Bottom Depth (fbTOR):
Elevation Top of Well Riser (fmsl):	Datum Ground Surface: Mean Sea Level
Elevation Top of Screen (fmsl):	Stick-up (feet):

PURGING DATA:

DATE:	START TIME:	END TIME:

VOLUME CALCULATION:

(A) Total Depth of Well (fbTOR):	
(B) Casing Diameter (inches):	
(C) Static Water Level (fbTOR):	
One Well Volume (V, gallons): V = 0.0408 [$(B)^2$ x { (A) - (C) }]	

*Use the table to the right to calculate one well volum

Volume Calculation

Well Diameter	Volume gal/ft
	.041
3"	0.
"	0.653
	1.020
6	1.469
8"	2.611

Stabilization Criteria

er	Criteria
DO	+/- 0.3 mg/L
Turbidity	+/- 10%
SC	+/- 3%
ORP	+/- 10 mV
pH	+/- 0.1 unit

Field Personnel:

EVACUATION STABILI TION A:

Time	Water Level (fbTOR)	Accumulated Volume		Tempe rees	Co tance S/cm)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor

REMARKS:

PREPARED BY:

SAMPLE

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FIELD OPERATING PROCEDURES

Non-Disposable and Non-Dedicated Sampling Equipment Decontamination

FOP 040.1

NON-DISPOSABLE AND NON-DEDICATED SAMPLING EQUIPMENT DECONTAMINATION

PURPOSE

This procedure is to be used for the decontamination of non-disposable and non-dedicated equipment used in the collection of environmental samples. The purpose of this procedure is to remove chemical constituents from previous samples from the sampling equipment. This prevents these constituents from being transferred to later samples, or being transported out of controlled areas.

HEALTH AND SAFETY

Nitric acid is a strong oxidizing agent as well as being extremely corrosive to the skin and eyes. Solvents such as acetone, methanol, hexane and isopropanol are flammable liquids. Limited contact with skin can cause irritation, while prolonged contact may result in dermatitis. Eye contact with the solvents may cause irritation or temporary corneal damage. Safety glasses with protective side shields, neoprene or nitrile gloves and long-sleeve protective clothing must be worn whenever acids and solvents are being used.

PROCEDURE – GENERAL EQUIPMENT

Bailers, split-spoons, steel or brass split-spoon liners, Shelby tubes, submersible pumps, soil sampling knives, and similar equipment will be decontaminated as described below.

1. Wash equipment thoroughly with non-phosphate detergent and potable-quality water, using a brush where possible to remove any particulate matter or surface film. If the sampler is visibly coated with tars or other phase-separated hydrocarbons, pre-wash with acetone or isopropanol, or by steam cleaning. Decontamination will adhere to the following procedure:

a. Rinse with potable-quality water; if the sampling equipment is very oily and use of a solvent is necessary, rinse with pesticide-grade isopropanol.

b. Rinse with potable-quality water;

c. Rinse with deionized water demonstrated analyte-free, such as distilled water;

d. Air dry; and

e. Store in a clean area or wrap in aluminum foil (shiny side out) or new plastic sheeting as necessary to ensure cleanliness.

2. All non-dedicated well evacuation equipment, such as submersible pumps and bailers, which are put into the well, must be decontaminated following the procedures listed above. All evacuation tubing must be dedicated to individual wells (i.e., tubing cannot be reused). However, if submersible pump discharge tubing must be reused, the tubing and associated sample valves or flow-through cells used in well purging or pumping tests will be decontaminated as described below:

a. Pump a mixture of potable water and a non-phosphate detergent through the tubing, sample valves and flow cells, using the submersible pump.

b. Steam clean or detergent wash the exterior of the tubing, sample valves, flow cells and pump.

c. Pump potable water through the tubing, sample valve, and flow cell until no indications of detergent (e.g. foaming) are observed.

d. Double rinse the exterior of the tubing with potable water.

e. Rinse the exterior of the tubing with distilled water.

f. Store in a clean area or wrap the pump and tubing assembly in new plastic sheeting as necessary to ensure cleanliness until ready for use.

3. All unused sample bottles and sampling equipment must be maintained in such a manner that there is no possibility of casual contamination.

4. Manage all waste materials generated during decontamination procedures as described in the Benchmark Field Operating Procedure for Management of Investigation Derived Waste.

PROCEDURE – SUBMERSIBLE PUMPS

Submersible pumps used in well purging or purging tests will be decontaminated thoroughly each day before use as well as between well locations as described below:

Daily Decontamination Procedure:

1. Pre-rinse: Operate the pump in a basin containing 8 to 10 gallons of potable water for 5 minutes and flush other equipment with potable water for 5 minutes.

2. Wash: Operate the pump in 8 to 10 gallons of non-phosphate detergent solution (i.e., Alconox) for 5 minutes and flush other equipment with fresh detergent solution for 5 minutes.

3. Rinse: Operate the pump in a basin of potable water for 5 minutes and flush other equipment with potable water for 5 minutes.

4. Disassemble pump.

5. Wash pump parts with a non-phosphate detergent solution (i.e., Alconox). Scrub all pump parts with a test tube brush or similar device.

6. Rinse pump with potable water.

7. Rinse the inlet screen, the shaft, the suction interconnection, the motor lead assembly, and the stator housing with distilled/deionized water.

8. Rinse the impeller assembly with 1% nitric acid (HNO_3).

9. Rinse the impeller assembly with isopropanol.

10. Rinse the impeller assembly with distilled/deionized water.

Between Wells Decontamination Procedure:

1. Pre-rinse: Operate the pump in a basin containing 8 to 10 gallons of potable water for 5 minutes.

2. Wash: Operate the pump in 8 to 10 gallons of non-phosphate detergent solution (i.e., Alconox) for 5 minutes.

3. Rinse: Operate the pump in a basin of potable water for 5 minutes.

4. Final rinse the pump in distilled/deionized water.

ATTACHMENTS

None

REFERENCES

Benchmark FOPs:
032 Management of Investigation-Derived Waste

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FIELD OPERATING PROCEDURES

Sample Labeling, Storage, and Shipment Procedures

FOP 046.0

SAMPLE LABELING, STORAGE & SHIPMENT PROCEDURES

PURPOSE

The collection and analysis of samples of environmental media, including soils, groundwater, surface water, and sediment, are the central activities of the field investigation. These samples must be properly labeled to preserve its identity, and properly stored and shipped in a manner that preserves its integrity and chain of custody. This procedure presents methods for these activities.

SAMPLE LABELING PROCEDURE

1. Assign each sample retained for analysis a unique 9-digit alphanumeric identification code or as indicated in the Project Work Plan. Typically, this code will be formatted as follows:

Sample I.D. Example: GW051402047	
GW	**Sample matrix** GW = groundwater; SW = surface water; SUB = subsurface soil; SS = surface soil; SED = sediment; L = leachate; A = air
05	Month of sample collection
14	Day of sample collection
02	Year of sample collection
047	Consecutive sample number

2. Consecutive sample numbers will indicate the individual sample's sequence in the total set of samples collected during the investigation/sampling event. The sample number above, for example, would indicate the 47th sample retained for analysis during the field investigation, collected on May 14, 2002.

3. Affix a non-removable (when wet) label to each sample container. The following information will be written on the label with black or blue ink that will not smudge when wet:

   - Project number
   - Sample ID (see Step 1 above)
   - Date of sample collection
   - Time of sample collection (military time only)
   - Specify "grab" or "composite" sample with an "X"
   - Sampler initials
   - Preservative(s) (if applicable)
   - Analytes for analysis (if practicable)

4. Record all sample label information in the Project Field Book and on a Sample Summary Collection Log (see attached samples), keyed to the sample identification number. In addition, add information regarding the matrix, sample location, depth, etc. to provide a complete description of the sample.

SAMPLE STORAGE PROCEDURE

1. Immediately after collection, placement in the proper container, and labeling, place samples to be retained for chemical analysis into resealable plastic bags.

2. Place bagged samples into an ice chest filled approximately half-full of double bagged ice. Blue ice is not an acceptable substitute for ice.

3. Maintain samples in an ice chest or in an alternative location (e.g. sample refrigerator) as approved by the Benchmark Field Team Leader until time of shipment. Periodically drain melt-water off coolers and replenish ice as necessary.

4. Ship samples on a daily basis, unless otherwise directed by the Benchmark Field Team Leader.

5. Maintain appropriate custody procedures on coolers and other sample storage containers at all times. These procedures are discussed in detail in the Project Quality Assurance Project Plan, Monitoring Plan or Work Plan.

6. Samples shall be kept in a secure location locked and controlled (i.e., locked building or fenced area) so that only the Project Field Team Leader has access to the location or under the constant visual surveillance of the same.

SAMPLE SHIPPING PROCEDURE

1. Fill out the chain-of-custody form completely (see attached sample) with all relevant information. The white original goes with the samples and should be placed in a resealable plastic bag and taped inside the sample cooler lid; the sampler should retain the copy.

2. Place a layer of inert cushioning material such as bubble pack in the bottom of cooler.

3. Place each bottle in a bubble wrap sleeve or other protective wrap. To the extent practicable, then place each bottle in a resealable plastic bag.

4. Open a garbage bag (or similar) into a cooler and place sample bottles into the garbage bag (or similar) with volatile organic analysis (VOA) vials near the center of the cooler.

5. Pack bottles with ice in plastic bags. At packing completion, cooler should be at least 50 percent ice, by volume. Coolers should be completely filled, so that samples do not move excessively during shipping.

6. Duct tape (or similar) cooler drain closed and wrap cooler completely in two or more locations to secure lid, specifically covering the hinges of the cooler.

7. Place laboratory label address identifying cooler number (i.e., 1 of 4, 2 of 4 etc.) and overnight delivery waybill sleeves on cooler lid or handle sleeve (Federal Express).

8. Sign the custody seal tape with an indelible soft-tip marker and place over the duct tape across the front and back seam between the lid and cooler body.

9. Cover the signed custody seal tape with an additional wrap of transparent strapping tape.

10. Place "Fragile" and "This Side Up" labels on all four sides of the cooler. "This Side Up" labels are yellow labels with a black arrow with the arrowhead pointing toward the cooler lid.

11. For coolers shipped by overnight delivery, retain a copy of the shipping waybill, and attach to the chain-of-custody documentation.

ATTACHMENTS

Soil/Sediment Sample Summary Collection Log (sample)
Groundwater/Surface Water Sample Summary Collection Log (sample)
Wipe Sample Summary Collection Log (sample)
Air Sample Summary Collection Log (sample)
Chain-Of-Custody Form (sample)

REFERENCES

None

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

AIR SAMPLE COLLECTION SUMMARY LOG

Field ID	Location	QC Type	Analytical Parameters	Containers	Date	Time	Sampler Initials	Comments (e.g. problems encountered, ref. to variance, location changes, important observations or descriptions, etc.)

Notes:

1. See QAPP for sampling frequency and actual number of QC samples.
2. SC - Summa Canister.
3. TB - Tedlar Bag (quantity).
4. No Matrix Spike, Matrix Spike Duplicate, Matrix Spike Blanks, Field Duplicates, Field Blanks or Rinsates collected for air samples.

SAMPLE

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

CHAIN OF CUSTODY RECORD

Project No.	Project Name					Number of Containers	VOCs	SVOCs	Metals						REMARKS
Samplers (Signature)															
No.	Date	Time	comp	grab	Sample Identification										

Possible Hazard Identification:
☐ Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal:
☐ Return to Client ☐ Disposal by Lab ☐ Archive _____(mos.)

Turnaround Time Required:
Normal ☐ Rush ☐

QC Level:
I. ☐ II. ☐ III. ☐ Project Specific (specify):_____

Relinquished by: (Signature)	Date	Time	Relinquished by: (Signature)	Date	Time	REMARKS:
Relinquished by: (Signature)	Date	Time	Relinquished by: (Signature)	Date	Time	

SAMPLE

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

WIPE SAMPLE COLLECTION SUMMARY LOG

Field ID	Location	QC Type	Analytical Parameters	Containers	Date	Time	Sampler Initials	Comments (e.g. problems encountered, ref. to variance, location changes, important observations or descriptions, etc.)

Notes:

1. See QAPP for sampling frequency and actual number of QC samples.
2. CWM - clear, wide-mouth glass jar with Teflon-lined cap.
3. FD - Field Duplicate.
4. FB - Field Blank.
5. RS - Rinsate.
6. No Matrix Spike, Matrix Spike Duplicate or Matrix Spike Blanks for wipe samples.
7. Rinsates should be taken at a rate of 1 per day during wipe sampling. Only take when reusable equipment is used.
8. Wipe sample FB collected by wiping unused glove and any other sampling equipment coming into contact with sampled surface) with prepared gauze pad and place in sample jar. Take at a rate of 1 FB per 20 samples.
9. Wipe sample FDs taken adjacent to original sample at a rate of 1 FD per 20 samples.
10. **EH :** Extract and Hold

SAMPLE

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AIR SAMPLE COLLECTION SUMMARY LOG

Field ID	Location	QC Type	Analytical Parameters	Containers	Date	Time	Sampler Initials	Comments (e.g. problems encountered, ref. to variance, location changes, important observations or descriptions, etc.)

Notes:

1. See QAPP for sampling frequency and actual number of QC samples.
2. SC - Summa Canister.
3. TB - Tedlar Bag (quantity).
4. No Matrix Spike, Matrix Spike Duplicate, Matrix Spike Blanks, Field Duplicates, Field Blanks or Rinsates collected for air samples.

SAMPLE

SAMPLE LABELING, STORAGE & SHIPMENT PROCEDURES

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

CHAIN OF CUSTODY RECORD

Project No.	Project Name					Number of Containers	VOCs	SVOCs	Metals						REMARKS
Samplers (Signature)															
No.	Date	Time	comp	grab	Sample Identification										

Possible Hazard Identification:
☐ Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal:
☐ Return to Client ☐ Disposal by Lab ☐ Archive _____(mos.)

Turnaround Time Required:
Normal ☐ Rush ☐

QC Level:
I. ☐ II. ☐ III. ☐ Project Specific (specify):_____

Relinquished by: (Signature)	Date	Time	Relinquished by: (Signature)	Date	Time	REMARKS:
Relinquished by: (Signature)	Date	Time	Relinquished by: (Signature)	Date	Time	

SAMPLE

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

FIELD OPERATING PROCEDURES

Screening of Soil Samples for Organic Vapors During Drilling Activities

FOP 047.0

SCREENING OF SOIL SAMPLES FOR ORGANIC VAPORS DURING DRILLING ACTIVITIES

PURPOSE

This procedure is used to screen soil samples for the presence of volatile organic constituents (VOCs) using a field organic vapor meter. These meters will be either photoionization detector (PID) or flame-ionization detector (FID) type. This screening is performed at the drilling and sampling location as a procedure for ensuring the health and safety of personnel at the site and to identify potentially contaminated soil samples for laboratory analysis. All soil samples will be field screened to provide a vertical profile of soil contamination by volatile organic substances.

PROCEDURE

1. Calibrate air-monitoring equipment in accordance with the appropriate Benchmark's Field Operating Procedures or manufacturers recommendations for calibration of field meters.

2. Collect split-spoon (or other sampler) samples in accordance with Benchmark's Split Spoon Sampling Procedure FOP.

3. When the split-spoon or other sampler is opened or accessed, shave a thin layer of material from the entire length of the core.

4. Scan the core visually and with the PID or FID noting stratification, visible staining, or other evidence of contamination.

5. Based on this initial scan of the sample, collect approximately 100 milliliters (ml) of soil using a decontaminated or dedicated stainless steel spatula, scoop, or equivalent. Place this soil into a labeled wide-mouth glass jar approximately ½ to ¾ full and seal with aluminum foil and a screw top cap. Alternatively, the soil may be placed into a clean, re-sealable plastic bag and sealed. Be sure to leave some headspace above the soil sample within the sealed container.

6. Place field screening sample (i.e., jar or bag) in a location where the ambient temperature is at least 70° Fahrenheit.

7. Leave the field screening sample bag for at least 30 minutes, but no more than 60 minutes.

8. Carefully remove the screw top cap from the jar and slowly insert the tip of the organic vapor meter (PID or FID) through the aluminum foil seal making the smallest hole possible. Alternatively, unseal a portion of the plastic bag just big enough to insert the probe of a calibrated PID.

9. Record the maximum reading in parts per million by volume (ppmv) on the Field Borehole Log or Field Borehole/Monitoring Well Installation Log form (see attached samples) (see Documentation Requirements for Drilling and Well Installation FOP), at the depth interval corresponding to the depth of sample collection.

ATTACHMENTS

Field Borehole Log (sample)
Field Borehole/Monitoring Well Installation Log (sample)

REFERENCES

Benchmark FOPs:

010 *Calibration and Maintenance of Portable Flame Ionization Detector*
011 *Calibration and Maintenance of Portable Photoionization Detector*
015 *Documentation Requirements for Drilling and Well Installation*
058 *Split Spoon Sampling Procedures*

SCREENING OF SOIL SAMPLES FOR ORGANIC VAPORS DURING DRILLING ACTIVITIES

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

FIELD BOREHOLE LOG

PROJECT:		**Log of Boring No.:**	
BORING LOCATION:		ELEVATION AND DATUM:	
DRILLING CONTRACTOR:		DATE STARTED:	DATE FINISHED:
DRILLING METHOD:		TOTAL DEPTH:	SCREEN INTERVAL:
DRILLING EQUIPMENT:		DEPTH TO WATER: FIRST: / COMPL.:	CASING:
SAMPLING METHOD:		LOGGED BY:	
HAMMER WEIGHT:	DROP:	RESPONSIBLE PROFESSIONAL:	REG. NO.

Depth (bgs)	SAMPLES: Sample No.	Sample	Blows (per 6")	SPT N-Value	Recovery	PID Scan (ppm)	SAMPLE DESCRIPTION USCS Classification: Color, Moisture Condition, % of Soil Type, Texture, Plasticity, Fabric, Bedding, Weathering/Fracturing, Odor, Other SURFACE ELEVATION (FMSL):	REMARKS

SAMPLE

ABANDONMENT:			
Volume of cement/bentonite grout required:	$V = \pi r^2 \times 7.48 =$	gallons	borehole depth = ft.
Volume of cement/bentonite grout installed:		gallons	borehole diameter = ft.
Has bridging of grout occurred?	☐ yes ☐ no		borehole radius = ft.
If yes, explain resolution:			
Method of installation:			
Project No:	**Benchmark Environmental Engineering & Science, PLLC**		Figure

SCREENING OF SOIL SAMPLES FOR ORGANIC VAPORS DURING DRILLING ACTIVITIES

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

FIELD BOREHOLE/MONITORING WELL INSTALLATION LOG

PROJECT:		**Log of Well No.:**	
BORING LOCATION:		ELEVATION AND DATUM:	
DRILLING CONTRACTOR:		DATE STARTED:	DATE FINISHED:
DRILLING METHOD:		TOTAL DEPTH:	SCREEN INTERVAL:
DRILLING EQUIPMENT:		DEPTH TO WATER: FIRST: / COMPL.:	CASING:
SAMPLING METHOD:		LOGGED BY:	
HAMMER WEIGHT:	DROP:	RESPONSIBLE PROFESSIONAL:	REG. NO.

Depth (fbgs)	SAMPLES: Sample No.	Sample	Blows (per 6")	SPT N-Value	Recovery	PID Scan (ppm)	SAMPLE DESCRIPTION (USCS Classification: Color, Moisture Condition, % of Soil Type, Plasticit… Fabric, Bedding, Weathering/Fracturing, Odor, Oth…)	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
							SURFACE ELEVATION (FMSL):	

SAMPLE

Project No:	Benchmark Environmental Engineering & Science, PLLC	Figure

BENCHMARK
ENVIRONMENTAL
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FIELD OPERATING PROCEDURES

Soil Description Procedures Using The Visual-Manual Method

FOP 054.2

SOIL DESCRIPTION PROCEDURES USING THE VISUAL-MANUAL METHOD

PURPOSE

This guideline presents a means for insuring consistent and proper field identification and description of collected soils during a project (via, split-spoon (barrel) sampler, hand auger, test pit etc.). The lithology and moisture content of each soil sample will be physically characterized by visual-manual observation in accordance with ASTM Method D2488, Standard Practice for Description and Identification of Soils (Visual-Manual Procedure). When precise classification of soils for engineering purposes is required, the procedures prescribed in ASTM Method D2487 (Standard Practice for Classification of Soils for Engineering Purposes [Unified Soil Classification System, USCS]) will be used. The method of soil characterization presented herein describes soil types based on grain size, liquid and plastic limits, and moisture content based on visual examination and manual tests. When using this FOP to classify soil, the detail of description provided for a particular material should be dictated by the complexity and objectives of the project. However, more often than not, "after the fact" field information is required later in the project, therefore, every attempt to describe the soil as completely as possibly should be made.

Intensely weathered or decomposed rock that is friable and can be reduced to gravel size or smaller by normal hand pressure should be classified as a soil. The soil classification would be followed by the parent rock name in parenthesis. Projects requiring depth to bedrock determinations should always classify weathered or decomposed bedrock as bedrock (i.e., landfill siting). The project manager should always be consulted prior to making this determination.

PROCEDURE

Assemble necessary equipment and discuss program requirements with drilling contractor.

1. Calibrate air-monitoring equipment in accordance with the appropriate Benchmark's Field Operating Procedures or manufacturers recommendations for calibration of field meters.

2. Collect desired soil sample in accordance with appropriate Benchmark FOP (i.e., split-spoon sampling, hand augering, test pitting etc.).

3. Shave a thin layer off the entire length of the sample to expose fresh sample.

4. Photograph and scan the sample with a photoionization detector (PID) at this time, if applicable, in accordance with Benchmark's Screening of Soil Samples for Organic Vapors During Drilling Activities FOP.

5. Describe the sample using terminology presented in the Descriptive Terms section below.

6. Record all pertinent information in the Project Field Book and Field Borehole Log (sample attached) or Field Borehole/Monitoring Well Installation Log (sample attached).

7. After the sample has been described, place a representative portion of the sample in new, precleaned jars or self-sealing plastic bags for archival purposes (if required). Label the jar or bag with the sample identification number, sample interval, date, project number and store in a secure location.

8. If the soil is to be submitted to a laboratory for analysis, collect the soil sample with a dedicated stainless steel sampling tool, place the sample into the appropriate laboratory-supplied containers, and store in an ice-chilled cooler staged in a secure location in accordance with Benchmark's Sample Labeling, Storage and Shipment Procedures FOP.

9. All remaining soil from soil sample collection activities shall be containerized in accordance with Benchmark's Management of Investigative-Derived Waste (IDW) FOP and/or the Project Work Plan.

DESCRIPTIVE TERMS

All field soil samples will be described using the Unified Soil Classification System (USCS) presented in Figures 1 and 2 (attached). In addition to ASTM Method D2488, Method D1586, Standard Test Method for Penetration Test and Split-Barrel Sampling of Soils (a.k.a., Standard Penetration Test, STP), when implemented, can also be used to classify the resistance of soils. In certain instances, it is desirable to supplement the USCS classification with a geologic interpretation of the soil sample that is supported by the soil descriptive terms presented in this section. The project manager should be consulted when making any geologic interpretation. Field test methods are provided to assist field personnel in classifying soil and are identified by a bold blue **FTM** and shaded. Classification of sampled soils will use the following ASTM descriptive terms and criteria:

- **Group Name** (USCS, see Figure 2)
- **Group Symbol** (USCS, see Figure 2) – only use if physical laboratory testing has been performed to substantiate. The USCS can be applied to most unconsolidated materials, and is represented by a two-letter symbol, except Peat (Pt).
  - The first letter includes: G (gravel), S (sand), M (silt), C (clay), and O (organic).
  - The second letter includes: P (poorly graded or uniform particle sizes), W (well graded or diversified particle sizes), H (high plasticity), and L (low plasticity).
  - Examples:
    - GW = well graded gravels and gravel-sand mixtures, little or no fines
    - GP = poorly graded gravels and gravel-sand mixtures, little or no fines
    - GM = silty gravels, gravel-sand-silt mixtures

- GC = clayey gravels, gravel-sand-clay mixtures
- SW = well graded sands and gravelly sands, little or no fines
- SP = poorly graded sands and gravelly sands, little or no fines
- SM = silty sand, sand-silt mixtures
- SC = clayey sand sand-clay mixtures
- ML = inorganic silts, very fine sands, rock flour, silty or clayey fine sands
- CL = inorganic clays of low to medium plasticity, gravelly/sandy/silty/lean clays
- OL = organic silts and organic silty clays of low plasticity
- MH = inorganic silts, micaceous or diatomaceous fine sands or silts, elastic silts (very rare)
- CH = inorganic clays of high plasticity, fat clays
- OH = organic clays of medium to high plasticity
- Pt = peat, muck, and other highly organic soils

- **Angularity** (ASTM D2488; Table 1)
  - Angular – particles have sharp edges and relatively planar sides with unpolished surfaces
  - Subangular – particles are similar to angular description but have rounded edges
  - Subrounded – particles have nearly planar sides but have well-rounded corners and edges
  - Rounded – particles have smoothly curved sides and no edges
- **Particle Shape** (ASTM D2488; Table 2)
  - Flat – particles with width/thickness > 3
  - Elongated – particles with length/width > 3
  - Flat and Elongated – particles meet criteria for both flat and elongated
- **Moisture Condition** (ASTM D2488; Table 3)
  - Dry – absence of moisture, dusty, dry to the touch
  - Moist – damp, but no visible water
  - Wet – visible free water, usually soil is below water table
- **Reaction with Hydrochloric Acid (HCL)** (ASTM D2488; Table 4)
  - None – no visible reaction

- Weak – some reaction, with bubbles forming slowly
- Strong – violent reaction, with bubbles forming immediately

- **Consistency of Cohesive Soils** (ASTM D2488; Table 5)
  - Very soft – squeezes between fingers when fist is closed; easily penetrated several inches by fist (SPT = 2 or less)
  - Soft – easily molded by fingers; easily penetrated several inches by thumb (SPT = 2 to 4)
  - Firm – molded by strong pressure of fingers; can be penetrated several inches by thumb with moderate effort (SPT = 4 to 8)
  - Stiff – dented by strong pressure of fingers; readily indented by thumb but can be penetrated only with great effort (SPT = 8 to 15)
  - Very stiff – readily indented by thumbnail (SPT = 15 to 30)
  - Hard – indented with difficultly by thumbnail (SPT >30)
- **Cementation** (ASTM D2488; Table 6)
  - Weak – crumbles or breaks with handling or slight finger pressure
  - Moderate – crumbles or breaks with considerable finger pressure
  - Strong – will not crumble or break with finger pressure
- **Structure (Fabric)** (ASTM D2488; Table 7)
  - Varved – alternating 1 mm to 12 mm (0.04 – 0.5 inch) layers of sand, silt and clay
  - Stratified – alternating layers of varying material or color with the layers less than 6 mm (0.23 inches) thick; note thickness
  - Laminated – alternating layers of varying material or color with the layers less than 6 mm (0.23 inches) thick; note thickness
  - Fissured – contains shears or separations along planes of weakness
  - Slickensided – shear planes appear polished or glossy, sometimes striated

- Blocky – cohesive soil that can be broken down into small angular lumps which resist further breakdown
- Lensed – inclusion of small pockets of different soils, such as small lenses of sand scattered through a mass of clay; note thickness
- Homogeneous or Massive – same color and appearance throughout

- **Inorganic Fine-Grained Soil Characteristics** (ASTM D2488; Table 12)

  Several field tests can be performed to determine the characteristics of fine-grained soils (material passing the No. 40 sieve), such as dry strength, dilatency, and toughness. These field testing methods are described below.

  - **Dry Strength** (ASTM D2488; Table 8)

    FTM (Dry Strength): Select enough material and moisten with water until it can be molded or shaped without sticking to your fingers (slightly below the sticky limit) into a ball about 1 inch in diameter. From this ball, form three balls about ½ inch in diameter and allow to dry in air, or sun, or by artificial means (temperature not to exceed 60° C (140° F). Soil containing natural dry lumps about ½ inch in diameter may be used in place of molded balls, however the dry strengths are usually lower. Test the strength by crushing the dry balls or lumps between your fingers using the descriptions below.

    - None – the dry specimen crumbles with the slightest pressure of handling
    - Low – the dry specimen crumbles with some finger pressure
    - Medium – the dry specimen breaks into pieces or crumbles with considerable finger pressure
    - High – the dry specimen cannot be broken with finger pressure. The specimen will break into pieces between the thumb and a hard surface.
    - Very High – the dry specimen cannot be broken between the thumb and a hard surface

  - **Dilatency** (ASTM D2488; Table 9)

    FTM (Dilatency): Place enough material in your hand to form a ball approximately ½ inch in diameter and moisten with water until it can be

molded or shaped without sticking to your fingers (slightly below the sticky limit). Smooth the ball in the palm of one hand with the blade of a knife or small spatula. Shake horizontally, striking the side of the hand vigorously against the other several times. Note the reaction of water appearing on the surface of the soil. The soil is said to have given a reaction to this test if, when it is shaken, water comes to the surface of the sample producing a smooth, shiny appearance. Squeeze the sample between the thumb and forefinger and note the reaction as follows:

- None – no visible change in the specimen
- Slow – water slowly appears on the surface of the specimen during shaking and does not disappear or disappears slowly upon squeezing
- Rapid – water quickly appears on the surface of the specimen during shaking and disappears upon squeezing

- **Toughness** (ASTM D2488; Table 10)

FTM (Toughness): Following the dilatency test above, shape the test specimen into an elongated pat and roll by hand on a smooth surface or between palms into a thread about 1/8 inch in diameter. Fold the sample threads and re-roll repeatedly until the thread crumbles at a diameter of about 1/8 inch (e.g., near the plastic limit). Note the pressure required to roll the thread near the plastic limit as well as the strength of the thread. After the thread crumbles, lump the pieces together and knead the lump until it crumbles. Describe the toughness as follows:

- Low – only slight pressure is required to roll the thread near the plastic limit. The thread and the lump are weak and very soft.
- Medium – medium pressure is required to roll the thread to near the plastic limit. The thread and the lump are soft.
- High – considerable pressure is required to roll the thread to near the plastic limit. The thread and the lump are firm.

Using the results of the dry strength, dilatency, and toughness test described above, classify the soil according to the following:

Soil Symbol	Dry Strength	Dilatency	Toughness
Silt (ML)	None to low	Slow to rapid	Low or thread cannot be formed
Lean clay (CL)	Medium to high	None to slow	Medium
Elastic Silt (MH)	Low to medium	None to slow	Low to medium
Fat Clay (CH)	High to very high	None	Low to medium high

- **Plasticity** (ASTM D2488; Table 11)

  Two field test methods can be used to determine plasticity of fine-grained soils (material passing the No. 40 sieve): the roll or thread test and the ribbon test. Each test is described below.

  FTM (Roll or Thread Test): As with the toughness test above, mix a representative portion of the soil sample with water until it can be molded or shaped without sticking to your fingers (slightly below the sticky limit). Place an elongated cylindrical sample on a nonabsorbent rolling surface (e.g., glass or was paper on a flat surface) and attempt to roll it into a thread approximately 1/8 inch in diameter. The results of this test are defined below (non-plastic to high plasticity).

  FTM (Ribbon Test): Form a roll from a handful of moist soil (slightly below the sticky limit) about ½ to ¾ inches in diameter and about 3 to 5 inches long. Place the material in the palm of your hand and, starting at one end, flatten the roll between your thumb and forefinger to form the longest and thinnest ribbon possible that can be supported by the cohesive properties of the material before breaking. If the soil sample holds together for a length of 6 to 10 inches without breaking, the material is considered to be both highly plastic and highly compressive (Fat Clay, CH). If the soil cannot be ribboned, it is non-plastic (Silt, ML or MH). If it can be ribboned only with difficulty into short lengths, it has low plasticity (Lean Clay, CL). Use the following terms to describe the plasticity of soil:

- Nonplastic (ML or MH) – a 3 mm (0.12 inches) thread cannot be rolled at any water content
- Low Plasticity (CL, ML, or MH) – the thread can barely be rolled, and crumbles easily
- Medium Plasticity (CL) – the thread is easy to roll and not much time is required to reach the plastic limit before crumbling
- High Plasticity (CH) – it takes considerable time rolling and kneading to reach the plastic limit; the thread can be rolled several times before crumbling

Note: A soil with as little as 20% clay will behave as a clayey soil. A soil needs 45% to over 60% medium to coarse sand to behave as a sandy soil. In a soil with 20% clay and 80% sand, the soil will behave as a clayey soil.

- **Relative Density of Cohesionless (Granular) Soils**
  - Very loose – easily penetrated 30 cm (1.2 inches) with 13 mm (0.5 inch) rebar pushed by hand (SPT = 0 to 4)
  - Loose – easily penetrated several cm with 13 mm (0.5 inch) rebar pushed by hand (SPT = 4 to 10)
  - Medium dense – easily to moderately penetrated with 13 mm (0.5 inch) rebar driven by 2.3 kg (6 pound) hammer (SPT = 10 to 30)
  - Dense – penetrated 0.3 m (1 foot) with difficulty using 13 mm (0.5 inch) rebar driven by 2.3 kg (6 pound) hammer (SPT = 30 to 50)
  - Very dense – penetrated only a few cm with 13 mm (0.5 inch) rebar driven by 2.3 kg (6 pound) hammer (SPT = >50)
- **Color** (use Munsel® Color System, as necessary)
- **Particle Size** (see Figure 3)
  - Boulder – larger than a basketball
  - Cobble – grapefruit, orange, volleyball
  - Coarse Gravel – tennis ball, grape

- Fine Gravel – pea
- Coarse Sand – rock salt
- Medium Sand – opening in window screen
- Fine Sand – sugar, table salt
- Fines (silt and clay) – cannot visually determine size (unaided)

- **Gradation**
  - Well Graded (GW, SW) – full range and even distribution of grain sizes present
  - Poorly-graded (GP, SP) – narrow range of grain sizes present
  - Uniformly-graded (GP, SP) – consists predominantly of one grain size
  - Gap-graded (GP-SP) – within the range of grain sizes present, one or more sizes are missing

- **Organic Material** – Organic soils usually have a dark brown to black color and may have an organic odor. Often, organic soils will change color, for example, black to brown, when exposed to the air. Some organic soils will lighten in color significantly when air-dried. Organic soils normally will not have a high toughness or plasticity. The thread of the toughness test will be spongy.
  - PEAT – 50 to 100 percent organics by volume, primary constituent
  - Organic (soil name) – 15 to 50 percent organics by volume, secondary organic constituent
  - (Soil name) with some organics – 5 to 15 percent organics by volume, additional organic constituents

- **Fill Materials** – All soils should be examined to see if they contain materials indicative of man-made fills. Man-made fill items should be listed in each of the soil descriptions. Common fill indicators include glass, brick, dimensioned lumber, concrete, pavement sections, asphalt, metal, plastics, plaster etc. Other items that could suggest fill include buried vegetation mats, tree limbs, stumps etc. The soil description for a fill material should be followed by the term "FILL", i.e., for a sandy silt with some brick fragments the description would be "SANDY

SILT (ML), with brick fragments (Fill)". The size and distribution of fill indicators should be noted. The limits (depth range) of fill material should be determined and identified at each exploration location.

- **Other Constituents/Characteristics**
  - Additional constituents and/or pertinent soil characteristics not included in the previous categories should be described depending on the scope and objectives of the project. Observations that may be discussed include:
    - Oxide staining
    - Odor
    - Origin
    - Presence of root cast
    - Presence of mica
    - Presence of gypsum
    - Presence of calcium carbonate
    - Percent by volume of cobbles & boulders with size description and appropriate rock classification
  - Other pertinent information from the exploratory program should be recorded, if it would be useful from a biddability/constructability perspective. The conditions that should be listed include caving or sloughing, difficulty in drilling and groundwater infiltration.

SOIL DESCRIPTIONS

Generally, soil descriptions collected during most investigations are not intended for civil engineering (construction) purposes, but rather for hydrogeologic and contaminant transport purposes. As such, the ASTM visual-manual assessments are somewhat limited in that they are only performed in order to indicate important information about potential hydraulic properties of a soil. Soil descriptions should be concise, stressing major constituents and

characteristics, and should be given in a consistent order and format. The following order is recommended:

- Soil name. The basic name of the predominant grain size and a single-word modifier indicating the major subordinate grain size (i.e., mostly clay with some silt). The feel test can be used to determine the texture of the soil by rubbing some moist soil between your fingers; sand feels gritty, silt feels smooth, and clays feel sticky. The terms representing percentages of grain size to be used include:
    - Trace – particles are present, but estimated to be less than 5%
    - Few – 5 to 10%
    - Little – 15 to 25%
    - Some – 30 to 45%
    - Mostly – 50 to 100%
- Color (using Munsell® charts, as necessary). Color is an important property in identifying organic soils, and within a given locality it may also be useful in identifying materials of similar geologic origin. It the sample contains layers or patches of varying colors (e.g., mottled), this shall be noted and all representative colors shall be described. The color shall be described for moist samples, however if the color represents a dry condition, it must be stated as such in the log. Generally, colors become darker as the moisture content increases and lighter as the soil dries. Examples include:
    - Some fine-grained soils (OL, OH) with dark drab shades of brown or gray, including almost black, contain organic colloidal matter.
    - In contrast, clean, bright looking shades of gray, olive green, brown, red, yellow, and white are associated with inorganic soils.
    - Gray-blue or gray- and yellow-mottled colors frequently result from poor drainage.
    - Red, yellow, and yellowish brown result from the presence of iron oxides.

  - White to pink may indicate considerable silica, calcium carbonate, or aluminum compounds.

- Field moisture condition as dry, moist, or wet;
- Gradation or Plasticity. Granular soils (i.e., sands or gravels) should be described as well-graded, poorly graded, uniform, or gap-graded, depending on the gradation of the minus 3-inch fraction. Cohesive soils (i.e., silts and clays) should be described as non-plastic, low, medium, or high, depending on the results of the manual evaluation for dry strength, dilatency, toughness, and plasticity discussed previously.
- Consistency/Density. An estimate of consistency of a cohesive soil or density of a granular soil, usually based on the SPT results (see Descriptive Terms section of this FOP);
- Soil Structure or Mineralogy. Description of discontinuities, inclusions, and structures, including joints, fissures, and slickensides.
- Odor. Describe the odor if organic or unusual. Soils containing a significant amount of organic material usually have a distinctive odor of decaying vegetation. This is especially apparent in fresh samples, but if the samples are dried, the odor may often be revived by heating a moistened sample. If the odor is unusual (petroleum, chemical, etc.), it should be noted in the log.
- Other important geologic information such as consolidation, gravel size and shape, visible internal structure, root holes, mica, odors, etc.

The first step when describing soil is to determine if the sample is predominantly fine-grained or coarse-grained (see Figures 3 and 4). Coarse-grained soils are relatively easy to identify, however descriptions of fine-grained soils can be more difficult, requiring additional field tests to assist the field geologist arrive at the proper soils classification (see **FTMs** under Descriptive Terms above). These tests are explained in detail in the ASTM Standard D2488 and briefly herein. Generally, the differentiation between silt and clay is based on plasticity and "texture". However, tests for dry strength and dilatency, along with plasticity,

can be very helpful and are recommended in the ASTM Standard. If additional tests are performed, in addition to plasticity, to classify the fines, record them with the soil description on the logs. Doing this will assist the reader (i.e., Project Manager) to follow the logic used to describe a soil (e.g., medium plasticity, low dry strength = elastic silt [MH]; not a lean clay [CL]).

Fines described in the classification should be modified by their plasticity (e.g., non-plastic fines, low plasticity fines, etc.) reserving the words "silt" and "clay" for the soil name.

In summary, adhering to the ASTM Standard and the guidelines outlined in this FOP will provide uniformity in soil descriptions provided by all field personnel. Prior to mobilization to the field, field staff should make sure to have laminated copies of the ASTM Standard flow charts and tables as well as this FOP (as necessary). Some examples of complete soil descriptions are as follows:

Coarse-grained Soil

POORLY GRADED FINE SAND w/ SILT: Dark grey, wet, mostly fine sand with some non-plastic fines, some iron-stained mottling, laminated, medium dense

Fine-grained Soil

LEAN CLAY: Dark reddish/brown, moist, mostly fines, medium plasticity, firm, no dilatency, medium dry strength, root holes.

Soil/Fill (option 1) – visual evidence of fill

FILL: Black, moist, mostly fines with some fine sand, slag, cinders, metal, brick, non-plastic, loose when disturbed, strong odor

Soil/Fill (option 2) – no visual evidence of fill, suspected reworked material

FILL (reworked): Black, moist, mostly fines with some fine sand and few coarse angular gravel, non-plastic, hard, loose when disturbed, mild odor

BORING AND MONITORING WELL INSTALLATION LOGS

Currently, Benchmark utilizes WinLoG software to construct subsurface logs and a template of the log is included in this FOP as an example. One of the most important functions of a boring/monitoring well installation log, besides transmitting the soil description, is to indicate where the "data" (soil samples) were collected, giving the reader an idea of how reliable or representative the description is. On each sample log, depths of attempted and recovered or non-recovered interval are shown. Odor, if noted, should be considered subjective and not necessarily indicative of specific compounds or concentrations.

Remember: all field logs should be NEAT, ACCURATE, and LEGIBLE. Don't forget that the well completion diagram completed for each well requires details of the surface completion (i.e., flush-mount, stick-up etc.). It is the responsibility of the field staff to double-check each log (i.e., soil names, classifications, well construction details etc.) prior to implementing into a final report. A registered professional (i.e., professional engineer, PE or professional geologist, PG) must review each log and will be ultimately responsible for its content and accuracy.

REQUIRED EQUIPMENT

- Knife
- Engineer's rule/measuring tape

- Permanent marker
- Pre-cleaned wide-mouth sample jars (typically provided by the driller)
- Pre-cleaned wide-mouth laboratory sample jars (provided by the laboratory)
- Stainless steel sampling equipment (i.e., spoons, spatulas, bowls etc.)
- 10x hand lens
- Hydrochloric acid
- ASTM D2488 flow charts (preferably laminated)
- ASTM D2488 test procedures (Tables 1 through 12) (preferably laminated)
- Camera (disposable, 35 mm or digital)
- Munsell soil color chart (as necessary)
- Project Field Book/field forms

ATTACHMENTS

Figure 1; Field Guide for Soil and Stratigraphic Analysis
Figure 2; USCS Soil Classification Flow Chart (modified from ASTM D2488)
Figure 3; Illustration of Particle Sizes
Figure 4; Grain-Size Scale (Modified Wentworth Scale)

Field Borehole Log (sample)

REFERENCES

American Society for Testing and Materials, 2008a. *ASTM D1586: Standard Test Method for Standard Penetration Test (SPT) and Split-Barrel Sampling of Soils.*

American Society for Testing and Materials, 2010. *ASTM D2487: Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System).*

American Society for Testing and Materials, 2009a. *ASTM D2488: Standard Practice for Description and Identification of Soils (Visual-Manual Procedure).*

State of California, Department of Transportation, Engineering Service Center, Office of Structural Foundations, August 1996. *Soil & Rock Logging Classification Manual (Field Guide), by Joseph C. de Larios.*

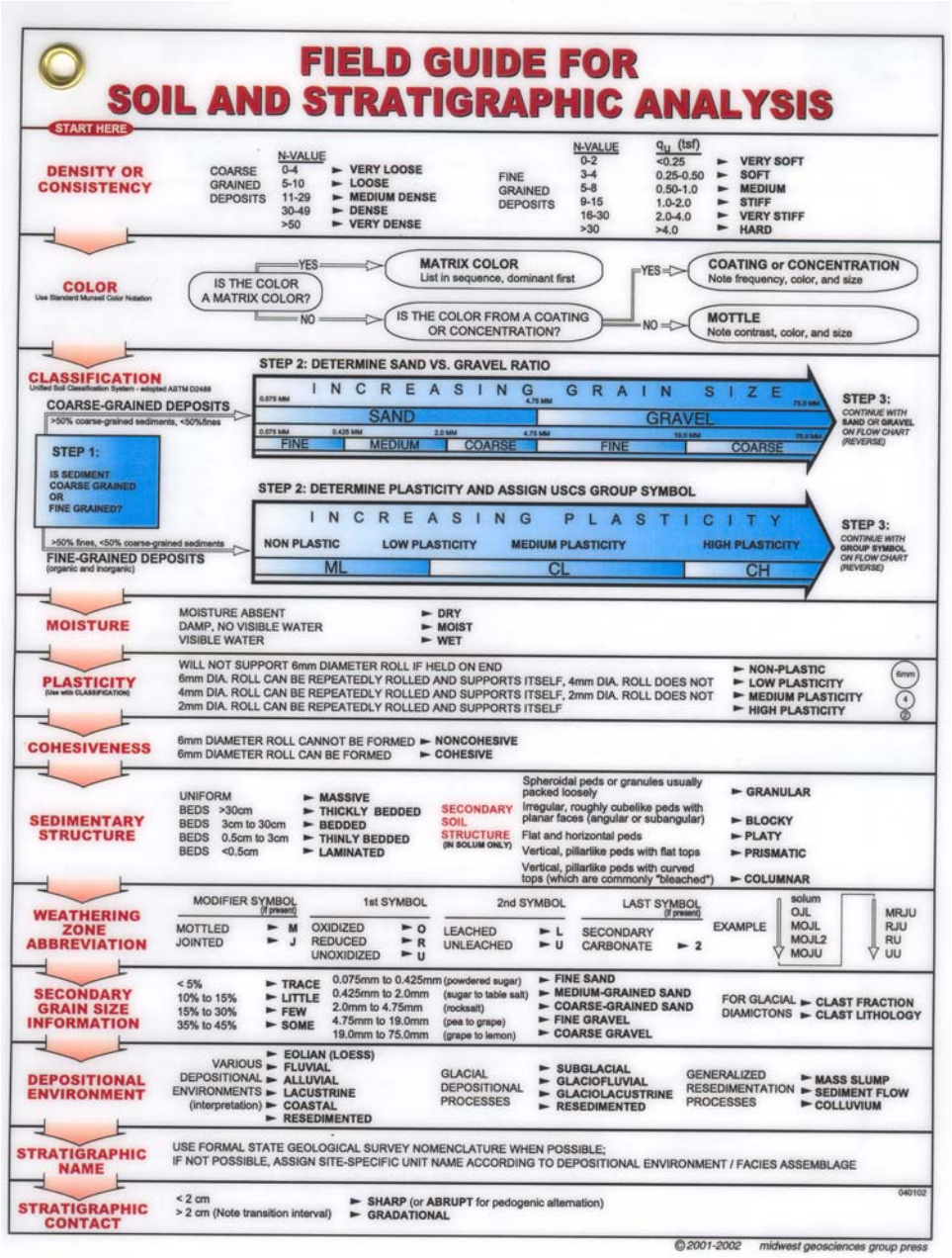
Benchmark FOPs:

010 Calibration and Maintenance of Portable Flame Ionization Detector
011 Calibration and Maintenance of Portable Photoionization Detector
015 Documentation Requirements for Drilling and Well Installation
025 Hand Augering Procedures
032 Management of Investigation-Derived Waste
046 Sample Labeling, Storage and Shipment Procedures
047 Screening of Soil Samples for Organic Vapors During Drilling Activities
058 Split-Spoon Sampling Procedures
065 Test Pit Excavation and Logging Procedures

SOIL DESCRIPTION PROCEDURES USING THE VISUAL-MANUAL METHOD

FIGURE 1

FIELD GUIDE FOR SOIL AND STRATIGRAPHIC ANALYSIS



SOIL DESCRIPTION PROCEDURES USING THE VISUAL-MANUAL METHOD

FIGURE 2

USCS SOIL CLASSIFICATION FLOW CHART (MODIFIED FROM ASTM D2488)

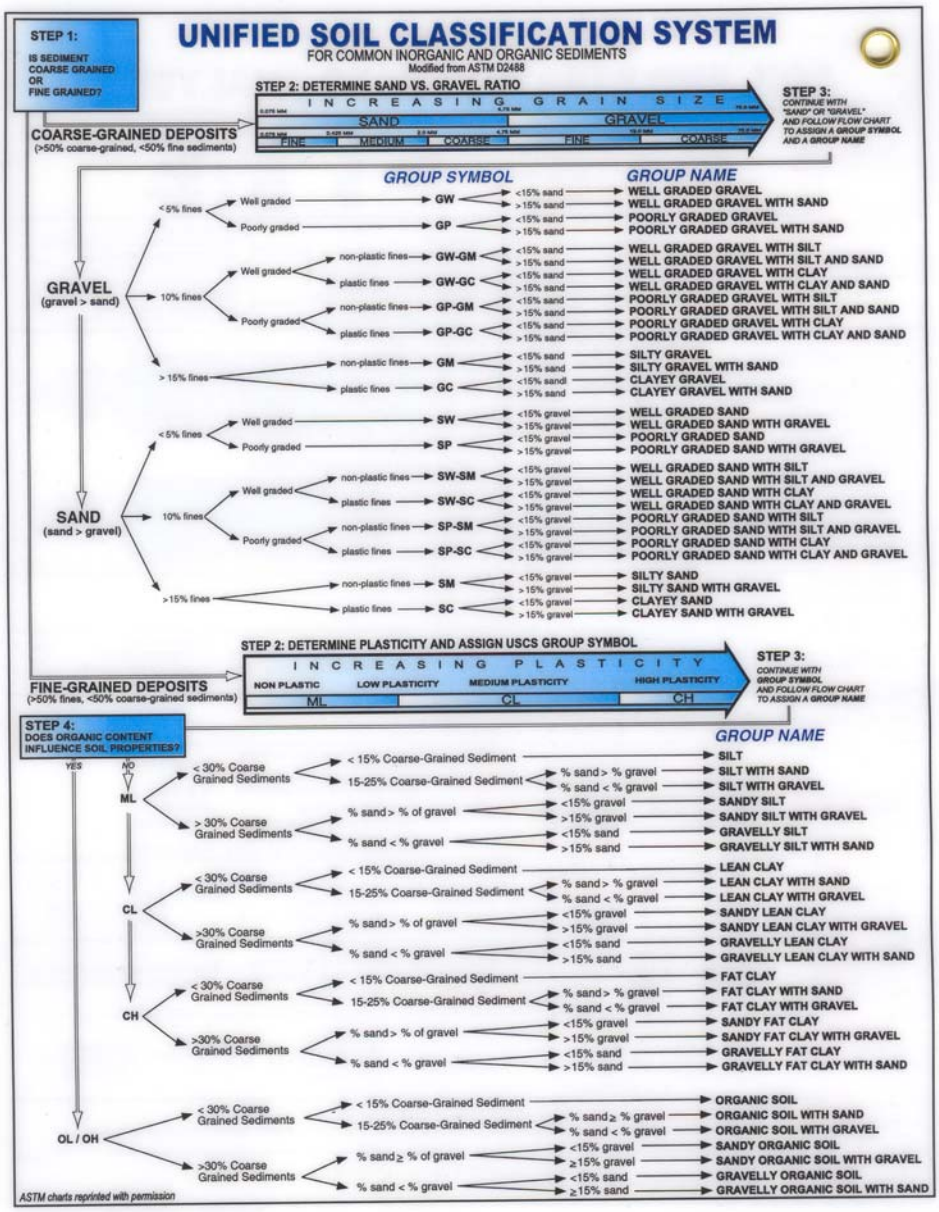


FIGURE 3

ILLUSTRATION OF PARTICLE SIZES

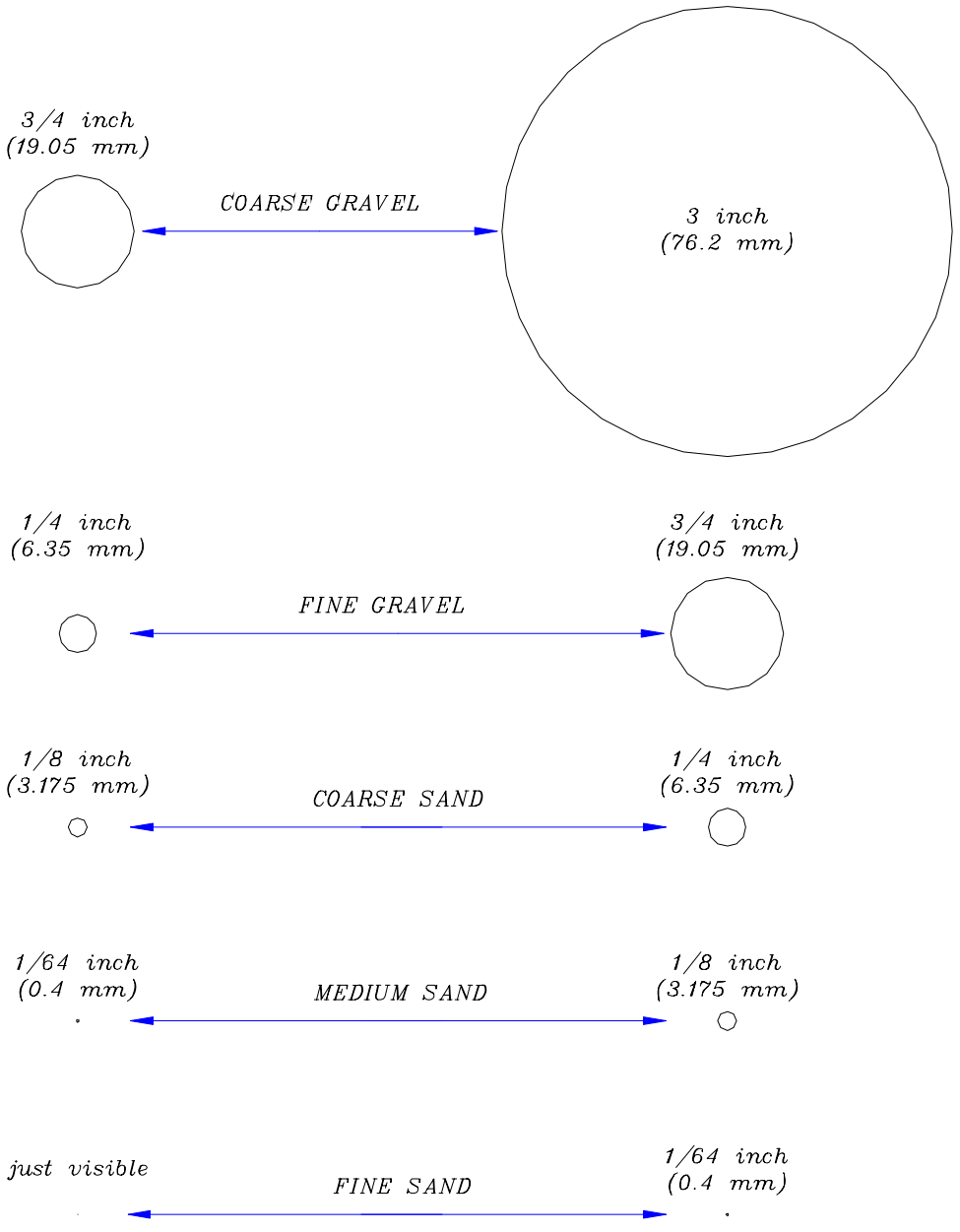


FIGURE 4

GRAIN-SIZE SCALE (MODIFIED WENTWORTH SCALE)

Grain size refers to the physical dimensions of particles of rock or other solid. This is different from the crystallite size, which is the size of a single crystal inside the solid (a grain can be made of several single crystals). Grain sizes can range from very small colloidal particles, through clay, silt, sand, and gravel, to boulders. Size ranges define limits of classes that are given names in the Wentworth scale used in the United States. The Krumbein *phi* (φ) scale, a modification of the Wentworth scale created by W. C. Krumbein, is a logarithmic scale computed by the equation: $\varphi = -\log_2(\text{grain size in mm})$.

φ scale	Size range (metric)	Size range (approx. inches)	Aggregate name (Wentworth Class)
< −8	> 256 mm	> 10.1 in	Boulder
−6 to −8	64–256 mm	2.5–10.1 in	Cobble
−5 to −6	32–64 mm	1.26–2.5 in	Very coarse gravel
−4 to −5	16–32 mm	0.63–1.26 in	Coarse gravel
−3 to −4	8–16 mm	0.31–0.63 in	Medium gravel
−2 to −3	4–8 mm	0.157–0.31 in	Fine gravel
−1 to −2	2–4 mm	0.079–0.157 in	Very fine gravel
0 to −1	1–2 mm	0.039–0.079 in	Very coarse sand
1 to 0	½–1 mm	0.020–0.039 in	Coarse sand
2 to 1	¼–½ mm	0.010–0.020 in	Medium sand
3 to 2	125–250 µm	0.0049–0.010 in	Fine sand
4 to 3	62.5–125 µm	0.0025–0.0049 in	Very fine sand
8 to 4	3.90625–62.5 µm	0.00015–0.0025 in	Silt
> 8	< 3.90625 µm	< 0.00015 in	Clay
<10	< 1 µm	< 0.000039 in	Colloid

In some schemes "gravel" is anything larger than sand (>2.0 mm), and includes "granule", "pebble", "cobble", and "boulder" in the above table. In this scheme, "pebble" covers the size range 4 to 64 mm (−2 to −6 φ).

FOP 054.2

SOIL DESCRIPTION PROCEDURES
USING THE VISUAL-MANUAL METHOD

Project No: **Borehole Number:**

Project:

Client: *Logged By:*

Site Location: *Checked By:*

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Benchmark Environmental Engineering & Science, PLLC
726 Exchange Street, Suite 624
Buffalo, NY
(716) 856-0599

SUBSURFACE PROFILE			SAMPLE						
Elev. /Depth	Symbol	Description (ASTM D2488: Visual-Manual Procedure)	Sample No.	SPT N-Value	Recovery (ft)	Symbol	PID VOCs ppm 0 25 50	Lab Sample	Well Completion Details or Remarks
0.0 / 0.0		Ground Surface							

SAMPLE

Drilled By: *Hole Size:*
Drill Rig Type: *Stick-up:*
Drill Method: *Datum:*

Drill Date(s): *Sheet: 1 of 1*

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FIELD OPERATING PROCEDURES

Split-Spoon Sampling Procedures

FOP 058.0

SPLIT-SPOON SAMPLING PROCEDURES

PURPOSE

This guideline presents the methods for using a split-spoon sampler for collecting soil samples from a boring and for estimating the relative in-situ compressive strength of subsurface materials (ASTM D 1586). Representative samples for lithologic description, geochemical analysis, and geotechnical testing will be collected from the subsurface materials using the split-spoon sampler.

PROCEDURE

1. Place plastic sheeting on a sturdy surface to prevent the split-spoon and its contents from coming in contact with the surface (several layers of sheeting may be placed on the surface so that they may be removed between each sample or as needed).

2. Lower the sampling string to the base of the borehole. Measure the portion of the sampling string that extends above surrounding grade (i.e. the stickup). The depth of sampling will equal the total length of the string (sampler plus rods) minus the stickup length.

3. Measure sampling depths to an accuracy of 0.1 feet. If field measurements indicate the presence of more than 0.3 feet of disturbed materials in the base of the borehole (i.e. slough), the sampler will be used to remove this material, after which a second sampling trip will be made.

4. Select additional sampler components as required (i.e., leaf spring core retainer for clays or a sand trap for non-cohesive sands). If a retainer or trap is not used, a spacer ring will be used to hold the liners in position inside the sampler.

5. For driving samples, attach the drive head sub and hammer to the drill rods without the weight resting on the rods. For pushing samples using the rig hydraulics, skip to Step 9.

6. Mark four 6-inch intervals on the drill rods relative to a reference point on the drill rig. With the sampler resting on the bottom of the hole, drive the sampler with the 140 lb. hammer falling freely over a 30-inch fall until 24 inches have been penetrated or 50 blows applied.

7. Record the number of blows per 6 inches. Determine the "N" value by adding the blows for the 6 to 12-inch and 12 to 18-inch intervals of each sample drive.

8. After penetration is complete, remove the sampling string. Avoid removing sampling string by hitting up on the string with the hammer as this can cause the sample to fall from the bottom of the split-spoon sampler. The sampling string should be removed via cable lifting or rig hydraulics. If sample retention has been poor, let the sampling string rest in place for at least 3 minutes, then rotate clockwise at least 3 times before removing from the borehole.

9. For pushed samples (i.e., using rig hydraulics), mark four 6-inch intervals on the drill rods relative to a reference point on the rig. Use the rig pull-down to press the sampler downward until 24 inches have been penetrated or no further progress can be made with the full weight of the rig on the sampler.

10. Remove the split-spoon sampler from the sampling string and place on the plastic-covered surface.

11. Open the split-spoon sampler only when the Benchmark field geologist is prepared to describe and manage the sample.

12. Describe the sample in accordance with the Unified Soil Classification System in accordance with the Benchmark FOP: Soil Description Procedures Using the Unified Soil Classification System (USCS).

13. Record all information in accordance with Benchmark's FOP: Documentation Requirements for Drilling and Well Installation.

14. Collect a portion of the sample for field screening as described in the Benchmark FOP: Screening of Soil Samples for Organic Vapors During Drilling Activities.

15. If applicable, collect soil samples for volatile organic constituents (VOCs). If applicable, collect sample for semi-volatile, metals, geotechnical, or other off-site analysis.

16. The samples will be labeled, stored and shipped in accordance with the Benchmark's FOP: Sample Labeling, Storage and Shipment Procedures.

ATTACHMENTS

none

REFERENCES

Benchmark FOPs:

015 Documentation Requirements for Drilling and Well Installation
046 Sample Labeling, Storage and Shipment Procedures
047 Screening of Soil Samples for Organic Vapors During Drilling Activities
054 Soil Description Procedures Using the Unified Soil Classification System (USCS)

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FIELD OPERATING PROCEDURES

Surface and Subsurface Soil Sampling Procedures

FOP 063.2

SURFACE AND SUBSURFACE SOIL SAMPLING PROCEDURES

PURPOSE

This procedure describes the methods for sampling surface soil and subsurface soil samples for physical and chemical laboratory analysis during intrusive activities such as test pitting, hand augering, drilling, surface soil sampling etc. Typical health and safety related issues should be addressed in the Project Health and Safety Plan.

PRE-SAMPLING PROCEDURES

1. Review project objectives and the Project Health and Safety Plan (HASP).

2. Conduct tailgate health and safety meeting with project team and/or subcontractor(s) by completing the Tailgate Safety Meeting Form (sample attached).

3. Calibrate air-monitoring equipment in accordance with the appropriate Benchmark's Field Operating Procedures or manufacturers recommendations for calibration of field meters.

4. Commence intrusive activities in accordance with specific Benchmark FOPs (test pitting, hand augering, drilling etc.) or as directed by the Project Work Plan.

5. Conduct air monitoring as required by the HASP, Project Work Plan or Benchmark's FOP Real-Time Air Monitoring During Intrusive Activities. Record all results on the Real Time Air Monitoring Log (sample attached).

6. Decontaminate all non-dedicated stainless steel (or Pyrex glass) equipment in accordance with Benchmark's Non-disposable and Non-dedicated Sampling Equipment Decontamination procedures.

7. Collect soil samples in accordance with the following sections.

SURFACE AND SUBSURFACE SOIL SAMPLING PROCEDURES

SURFACE SOIL/FILL SAMPLING PROCEDURES

Collection of surface soil/fill samples facilitates the evaluation of potential health risks to current site receptors that may be exposed to soil/fill via direct contact, incidental ingestion, or inhalation of airborne particulates. The following procedure is in accordance with NYSDEC sampling protocol of surface soil/fill material.

1. Collect all soil samples using dedicated (or decontaminated non-dedicated) sampling tools (i.e., spoons, trowels, bowls etc.), preferably constructed of stainless steel.

2. If the sample area is vegetated, then collect the surface soil sample from 0 to 2 inches below ground surface (bgs) following removal of the sod.

3. If there is no soil present within the sample area (i.e., only slag, concrete, mixed with fines), excavate an area 12 inches by 12 inches by 6 inches deep, screen the material to less than 1/8 inch (No. 4 sieve), and submit the screened material for analysis. If there is not enough material to completely fill the sample jar, then expand the excavation 3 inches in all four directions screening the additional material. Expand the excavation in this manner until sufficient sample volume is obtained. Volatile organic analysis of surface soil/fill utilizing this method will yield negatively biased results and should not be performed.

SURFACE/SUBSURFACE SOIL SAMPLING PROCEDURES

1. Collect all soil samples using dedicated (or decontaminated non-dedicated) sampling tools (i.e., spoons, trowels, bowls etc.), preferably constructed of stainless steel.

   Surface soil samples are typically collected from 0 to 6 inches below ground surface (bgs). Subsurface soils are typically sampled from varying depths greater than 6-inches bgs based on field observations and as directed by the Project Work Plan.

2. Transfer samples for chemical (VOC, SVOC, Metals etc.) and physical (i.e., Atterberg Limits, Grain Size, Permeability etc.) analytical testing by direct grab (i.e., directly from the bucket of the excavation equipment, split-spoon sampler, hand auger etc.) using the dedicated (or decontaminated non-dedicated) sampling tools into appropriate laboratory-supplied containers and seal. The chemical or physical laboratory selected to perform the analysis should determine minimum sample volume for analysis.

3. Prepare collected samples in accordance with Benchmark's FOP: Sample Labeling, Storage and Shipment Procedures. Do not allow the chemical soil samples to freeze during storage and shipping. It should be noted, ice is not required for physical soil samples and all physical soil samples should be kept at the collected soil moisture by securing with a tight sealing lid. Do not allow physical soil samples to gain or lose moisture from the collected soil moisture prior to analysis.

4. Record all sampling details (i.e., depth and location) in the Project Field Book; appropriate Benchmark log sheets depending on method of intrusion (i.e., drilling, test pitting, hand augering etc.); and on the Soil/Sediment Sample Collection Summary Log (sample attached).

PARAMETER-SPECIFIC PROCEDURES

1. Volatile Organic Compound (VOCs): Transfer sufficient soil volume to fill the laboratory-supplied container (typically 4 ounces) by packing the soil sample with the sampling tool to the top of the container leaving no headspace. At no time should a gloved hand (i.e., latex, nitrile etc.) be used to pack the sample into the sample container as the sample may be compromised via cross-contamination.

2. All Other Parameters: All other parameters include, but are not limited to, Semi-VOCs (SVOCs), polychlorinated biphenyls (PCBs), herbicides, pesticides, total metals etc. Transfer sufficient soil volume to fill the laboratory-supplied container by packing the soil sample with the sampling

tool to the top of the container. Unless otherwise indicated by the laboratory or the Project Work Plan, the sample jar for all other parameters does not have to be packed completely leaving no headspace as with the VOC containers.

ATTACHMENTS

Tailgate Safety Meeting Form (sample)
Soil/Sediment Sample Collection Summary Log (sample)
Real Time Air Monitoring Log (sample)

REFERENCES

Benchmark FOPs:

006 *Calibration and Maintenance of Combustible Gas/Oxygen Meter*
010 *Calibration and Maintenance of Portable Flame Ionization Detector*
011 *Calibration and Maintenance of Portable Photoionization Detector*
040 *Non-disposable and Non-dedicated Sampling Equipment Decontamination*
046 *Sample Labeling, Storage and Shipment Procedures*
073 *Real-Time Air Monitoring During Intrusive Activities*

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TAILGATE SAFETY MEETING FORM

Project Name: Date: Time:
Project Number: Client:
Work Activities:

HOSPITAL INFORMATION:

Name:
Address: *City:* *State:* *Zip:*
Phone No.: *Ambulance Phone No.*

SAFETY TOPICS PRESENTED:

Chemical Hazards:

Physical Hazards: Slips, Trips, Falls

PERSONAL PROTECTIVE EQUIPMENT:

Activity:	*PPE Level:*	A	B	C	D
Activity:	*PPE Level:*	A	B	C	D
Activity:	*PPE Level:*	A	B	C	D
Activity:	*PPE Level:*	A	B	C	D
Activity:	*PPE Level:*	A	B	C	D

New Equipment:

Other Safety Topic (s): Environmental Hazards (aggressive fauna)
Eating, drinking, use of tobacco products is prohibited in the Exclusion Zone (EZ)

SAMPLE

ATTENDEES

Name Printed	Signatures

Meeting conducted by:

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SOIL/SEDIMENT
SAMPLE COLLECTION SUMMARY LOG

Field ID	Location	QC Type	Depth (feet)		Analytical Parameters	Containers	Date	Time	Sampler Initials	Comments (e.g. problems encountered, ref. to variance, location changes, depth changes, important matrix observations or description, gravel thickness, etc.)
			from	to						

Equipment Rinsate Blanks - Pour clean deionized water over or through decontaminated sampling equipment into sample containers. Collect at a frequency of 1 per sampling method per day. Analyze for all those parameters analyzed for in the samples collected the same day. HSL Metals can be substituted by only the Metals analyzed for that day (except Hexavalent Chromium which needs a separate container). Match equipment used for constituents of concern to rinsate analyte. Note deionized water lot # or distilled water manufacturers info on label.

MS/MSD/MSB - Collect at a frequency of 1 per 20 samples of each matrix per day. Analyze for all those parameters analyzed for the samples collected the same day.

Field Blank - Pour clean deionized water (used as final decon rinse water) into sample containers while at the sampling site. Collect field blanks at a frequency of 1 per lot of deionized water. Note water lot number and dates in use for decon in 'Comments' section.

Investigation Derived Waste (IDW) Characterization samples - One composite sample from all drums of decon fluids and soil. Please note number of drums and labels on collection log.

Notes:

1. See QAPP for sampling frequency and actual number of QC samples.
2. CWM - clear, wide-mouth glass jar with Teflon-lined cap.
3. HDPE - high density polyethylene bottle.
4. MS/MSD/MSB - Matrix Spike, Matrix Spike Duplicate, Matrix Spike Blank
5. BD - Blind Duplicate - indicate location of duplicate.

SAMPLE

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REAL TIME AIR MONITORING LOG

Date:
Project Name:
Project Number:
Project Location:
Client:
Purpose of Air Monitoring:

WEATHER CONDITIONS:

Time of Day:	A.M.	P.M.
Ambient Air Temp.:		
Wind Direction:		
Wind Speed:		
Precipitation:		

Date	Personnel	Time	Air Monitoring Meter Measurement (Units)							Location/Activity/Comments
			PID (ppm)	LEL (%)	H_2S (ppm)	O_2 (%)	CO (ppm)	Particulates (mg/m^3)	Other	

SAMPLE

NOTE: SEE EQUIPMENT CALIBRATION LOG FOR DESCRIPTION OF EQUIPMENT TYPE.

Prepared By: Date:

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FIELD OPERATING PROCEDURES

Real-Time Air Monitoring During Intrusive Activities

FOP 073.2

REAL-TIME AIR MONITORING DURING INTRUSIVE ACTIVITIES PROCEDURE

PURPOSE

This guideline presents requirements for real-time community air monitoring and required responses during all project required intrusive activities, such as drilling, test pitting, earthwork construction etc. This procedure is consistent with the requirements for community air monitoring for all intrusive projects, including projects conducted at remediation sites, as established by the New York State Department of Health (NYSDOH) and the New York State Department of Environmental Conservation (NYSDEC). Accordingly, this Field Operating Procedure (FOP) follows procedures and practices outlined under the NYSDEC's Draft DER-10 (November 2009) generic Community Air Monitoring Plan dated November 2009 and NYSDEC Technical Assistance and Guidance Memorandum (TAGM) 4031: Fugitive Dust Suppression and Particulate Monitoring Program at Inactive Hazardous Waste Sites.

This FOP requires real-time monitoring for constituents of concern (COC) (i.e., volatile organic compounds (VOCs), lower explosive limit (% LEL), particulates (i.e., dust) etc.) at the upwind and downwind perimeter as well as the exclusion zone of a project site during all intrusive activities. This FOP is not intended for use in establishing action levels for worker respiratory protection (see Project Health and Safety Plan (HASP) for worker protection action levels). Rather, its intent is to provide a measure of protection for the surrounding community from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The community, as referenced in this document, includes any off-site residences, public buildings/grounds and commercial or industrial establishments adjacent to the project site. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, this FOP helps

to confirm that work activities did not spread contamination off-site through via air transport mechanisms. Community air monitoring shall be integrated with the construction worker personal exposure-monitoring program contained in the project and site-specific HASP.

Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for volatile organic compounds (VOCs) and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary. Most sites will involve VOC and particulate monitoring; sites known to be contaminated with heavy metals alone may only require particulate monitoring. If radiological contamination is a concern, additional monitoring requirements may be necessary per consultation with appropriate NYSDEC/NYSDOH staff.

MONITORING & MITIGATION PROCEDURE

Real-time air monitoring for COC levels at the upwind and downwind perimeter as well as the exclusion zone of the project site will be required. The perimeter locations of monitoring stations will be established based on the location of the exclusion zone (i.e., immediate work area) and wind direction. Where wind direction is shifting or winds are calm, the downwind monitoring location will default to the perimeter location nearest the most sensitive receptor (i.e., residential property). All downwind receptors being equal, the downwind monitoring location will default to the perimeter location downwind of the prevailing winds at the site. Although additional site specific COCs may be monitored during real-time air monitoring activities, the most common COCs are discussed in this

FOP, including organic vapors (i.e., VOCs), airborne particulates (i.e., fugitive dust) and combustible gases (i.e., methane) and oxygen.

Continuous monitoring will be required for all ground intrusive activities and during the demolition of contaminated or potentially contaminated structures. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

Periodic monitoring for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. "Periodic" monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence

ORGANIC VAPORS

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions. The monitoring work should be

performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

- If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.

- If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

- If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown (see Major Vapor Emission Monitoring below).

- All 15-minute readings must be recorded and be available for State (DEC and DOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

o **Special Requirements for Work Within 20 Feet of Potentially Exposed Individuals or Structures**

- When work areas are within 20 feet of potentially exposed populations or occupied structures, the continuous monitoring locations for VOCs and particulates must reflect the nearest potentially exposed individuals and the location of ventilation system intakes for nearby structures. The use of engineering controls such as vapor/dust barriers, temporary negative-pressure enclosures, or special ventilation devices should be considered to prevent exposures related to the work activities and to control dust and odors. Consideration should be given to implementing the planned activities when potentially exposed populations are at a minimum, such as during weekends or evening hours in non-residential settings.

- If total VOC concentrations opposite the walls of occupied structures or next to intake vents exceed 1 ppm, monitoring should occur within the occupied structure (s). Background readings in the occupied spaces must be taken prior to commencement of the planned work. Any unusual background readings should be discussed with NYSDOH prior to commencement of the work.

- If total particulate concentrations opposite the walls of occupied structures or next to intake vents exceed 150 mcg/m3, work activities should be suspended until controls are implemented and are successful in reducing the total particulate concentration to 150 mcg/m3 or less at the monitoring point.

- Depending upon the nature of contamination and remedial activities, other parameters (e.g., explosivity, oxygen, hydrogen SUlfide, carbon monoxide) may also need to be monitored Response levels and actions should be pre-determined, as necessary, for each site.

Additionally, if following the cessation of work and efforts to abate the emission source are unsuccessful, and if sustained organic vapor levels exceed 25 ppm above background within the 20-foot zone for more than 30 minutes, then the **Major Vapor Emission Response Plan** (see below) will automatically be placed into effect.

Major Vapor Emission Response Plan

Upon activation of Major Vapor Emission Response Plan, the following activities will be undertaken:

1. All Emergency Response Contacts as listed below and in the Site-Specific Health and Safety Plan will be contacted.

2. The local police authorities will immediately be contacted by the Site Safety and Health Officer and advised of the situation.

3. The Site Safety and Health Officer will determine if site workers can safely undertake source abatement measures. Abatement measures may include covering the source area with clean fill or plastic sheeting, or consolidating contaminated materials to minimize surface area. The Site Safety and Health Officer will adjust worker personal protective equipment as necessary to protect workers from over-exposure to organic vapors.

The following personnel are to be notified by the Site Safety and Health Officer in the listed sequence if the Major Vapor Emission Response Plan is activated:

Contact	Phone
Police/Fire Department	911
New York State DOH	(518) 402-7860
New York State DEC Region 8	(585) 226-2466, switchboard

New York State DEC Region 9	(716) 851-7220
State Emergency Response Hotline	(800) 457-7362

In addition, the Site Safety and Health Officer will provide these authorities with a description of the apparent source of the contamination and abatement measures being taken by the contractor, if any.

AIRBORNE PARTICULATES

Fugitive dust suppression and airborne particulate monitoring shall be performed during any intrusive activities involving disturbance or handling of site soil/fill materials. Fugitive dust suppression techniques will include the following minimum measures:

- Spraying potable water on all excessively dry work areas and roads.
- All fill materials leaving the site will be hauled in properly covered containers or haul trailers.
- Additional dust suppression efforts may be required as discussed below.

Particulate concentrations should be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance

of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

- If the downwind PM-10 particulate level is 100 micrograms per cubic meter (μg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 μg/m^3 above the upwind level and provided that no visible dust is migrating from the work area.

- If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 μg/m^3 above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 μg/m^3 of the upwind level and in preventing visible dust migration.

- All readings must be recorded and be available for State (DEC and DOH) personnel to review.

Visual Assessment

In conjunction with the real-time monitoring program, Benchmark personnel and any subcontractors thereof will be responsible for visually assessing fugitive dust migration from the site. If airborne dust is observed leaving the site, the work will be stopped until supplemental dust suppression techniques are employed in those areas.

Supplemental Dust Suppression

Supplemental dust suppression techniques may include but are not necessarily limited to the

following measures:

- Reducing the excavation size, number of excavations or volume of material handled.
- Restricting vehicle speeds.
- Applying water on buckets during excavation and dumping.
- Wetting equipment and excavation faces.
- Wetting haul roads.
- Restricting work during extreme wind conditions.
- Use of a street sweeper on paved haul roads, where feasible.

Work can resume using supplemental dust suppression techniques provided that the measures are successful in reducing the sustained downwind particulate concentration to below 150 ug/m^3 of the upwind level, and in preventing visible dust migration off-site.

COMBUSTIBLE GASES & OXYGEN

Ambient combustible gas and oxygen concentrations should be measured prior to commencing intrusive activities each workday and a minimum of every 30-minutes thereafter. Air monitoring activities should be performed using equipment appropriate to measure combustible gases in percent lower explosive limit (LEL) and percent oxygen and calibrated daily. All combustible gas and oxygen readings must be recorded in the Project Field Book and/or Real-Time Air Monitoring Logs (sample attached) and, if applicable, be made available for State (DEC and DOH) personnel to review.

Mitigation upon the detection of various action levels of organic vapors are presented below:

Combustible Gas:

- If the sustained ambient air concentration of combustible gas at the downwind perimeter of the site exceeds a reading of 10 to 25% LEL, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 10% LEL, work activities can resume with continued monitoring.

- If sustained combustible gas levels at the downwind perimeter of the site persist at levels in excess of 25% LEL, work activities must be halted, the source of explosion hazards identified, corrective actions taken to abate emissions and monitoring continued. Following combustible gas mitigation, work activities can resume provided that the sustained total organic vapor level 200 feet downwind of the exclusions zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less, (but in no case less than 20 feet) is below a sustained value of 10% LEL.

Oxygen:

- If the sustained ambient oxygen concentration at the downwind perimeter of the site measures a reading between 19.5% - 21% oxygen, work activities can continue with extreme caution, however attempts to determine the potential source of oxygen displacement must be conducted.

- If the sustained oxygen level readily decreases below 19.5% LEL, work activities should be discontinued and all personnel must leave the area immediately.

- If the sustained oxygen level at the downwind perimeter of the site persists at levels between 21-25%, work activities can resume with caution.

- If the sustained oxygen level at the downwind perimeter of the site persists at levels exceeding 25% (fire hazard potential), work activities should be discontinued and all personnel must leave the area immediately.

ATTACHMENTS

Real-Time Air Monitoring Log (sample)

REFERENCES

Benchmark FOPs:

006 *Calibration and Maintenance of Combustible Gas/Oxygen Meter*
010 *Calibration and Maintenance of Flame Ionization Detector*
011 *Calibration and Maintenance of Portable Photoionization Detector*
084 *Calibration and Maintenance of Portable Particulate Meter*

REAL-TIME AIR MONITORING DURING INTRUSIVE ACTIVITIES PROCEDURE

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, P.C.

REAL TIME AIR MONITORING LOG

Date:
Project Name:
Project Number:
Project Location:
Client:
Purpose of Air Monitoring:

WEATHER CONDITIONS:

Time of Day:	A.M.	P.M.
Ambient Air Temp.:		
Wind Direction:		
Wind Speed:		
Precipitation:		

Date	Personnel	Time	Air Monitoring Meter Measurement (Units)							Location/Activity/Comments
			PID (ppm)	LEL (%)	H_2S (ppm)	O_2 (%)	CO (ppm)	Particulates (mg/m^3)	Other	

SAMPLE

NOTE: SEE EQUIPMENT CALIBRATION LOG FOR DESCRIPTION OF EQUIPMENT TYPE.

Prepared By: Date:

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FIELD OPERATING PROCEDURES

"Before Going Into The Field" Procedure

FOP 076.0

"BEFORE & AFTER" PROJECT PROCEDURES FOR FIELD PERSONNEL

PURPOSE

This procedure describes the required field and office activities to be preformed "before and after" project assignments by field personnel. Field activities may include, but are not limited to, drilling oversight, excavation contractor oversight, matrix sample collection (e.g., soil, sediment, groundwater, surface water, wipe, and/or air), third party oversight, and site reconnaissance to name a few. Office activities may include, but are not limited to, photocopying field book entries, completing all field forms, tabulating collected field and laboratory data, and preparation of report text.

The primary goal of this procedure is to eliminate delays and unnecessary budgetary "strain" due to a lack of preparedness and knowledge of the site by the field team members. This procedure also seeks to streamline the preparation and transfer of field information/data from field personnel to the Project Manager upon field work completion.

PROJECT ASSIGNMENT

During the initial meeting with the Project Manager, several questions should be raised by the field team member and answered by the Project Manager. A pad of paper and pen should be in hand to record all pertinent job information. At a minimum, the following questions should be answered:

1. *What is the job number?*
2. *Who is the client and the on-site representative (if applicable)?*
3. *What is the name of the project?*
4. *What are the job responsibilities and how should they be accomplished?*
5. *How much time do I have to complete the assigned tasks?*
6. *Are there any project required documents? What are they?*

Any deviation from the above questions should be approved by the Project Manager prior to contravention, not at the end of the day or following the project completion.

"BEFORE" CHECKLISTS

Checklists should be developed and used so that all of the required steps prior to going into the field are undertaken. A good checklist will include:

- Adequate review of the documents listed in this FOP
- Any documents, equipment, and supplies presented in this FOP
- Providing adequate notification to the laboratory (so that holding times are not exceeded) and to the owner of the site and the primary regulatory agency (usually in writing) that a round of sampling is to commence in order to facilitate sampling and allow for a sampling audit or split sampling.
- Specifying and documenting the equipment maintenance and calibration undertaken prior to going into the field relative to the sampling event.
- Checking and calibrating the equipment.
- Listing the documents, equipment, and supplies required to collect samples at the site as presented in this FOP.

Prior to going into the field, sampling personnel should reacquaint themselves with the sampling plan. The review is undertaken so that the required specific protocol such as sampling from the least to the most contaminated wells, knowing where quality control samples are to be taken, knowing the disposition of purge water, etc., is understood and followed.

The amount of equipment maintenance and calibration required prior to going into the field should be clearly specified in the presampling equipment maintenance and calibration checklists, which are based on the manufacturer's recommendations, sampling objectives, and prior experience. Maintenance and calibration performed before sampling must be

documented to provide evidence that the equipment was adequately maintained and calibrated and to keep a permanent record of equipment servicing and performance.

A list of all the documents, equipment, and supplies required for the sampling event should be prepared and used. It can be frustrating and time consuming to forget equipment and supplies, so some up-front preparation is warranted. The following sections provide a list of the documentation, equipment, and supplies, which should assist in preparing a site-specific equipment and supply checklist. Once prepared, the checklist and project requirements should be reviewed with the Project Manager.

"BEFORE" DOCUMENTATION SUMMARY

Prior to going into the field, the field team should review and understand all of the project documents including, but not limited to:

- The Health and Safety Plan (HASP)
- The Site Analytical Plan (SAP), Sampling Plan, or similar document
- The Quality Assurance Project Plan (QAPP)
- The Work Plan
- Project specific Field Operating Procedures and field forms
- Site Maps
- Equipment operation manuals
- Chain-of-Custody forms
- Shipping labels and custody seals
- Any reference materials (i.e., conversion tables, volume calculation, etc.). The Pocket Ref, Third Edition by Thomas Glover is a great source for the field.

If at any time, the field team does not understand the project required protocol, procedures, sample locations, etc.; the Project Manager should be consulted for clarification.

"BEFORE" EQUIPMENT SUMMARY

Prior to going into the field, the field team should review the following equipment checklist, noting that project specific equipment may not be included in this list:

- Water level indicator
- Pumps, sample tubing, flow controllers, power cord(s), batteries, compressors, generators, etc.
- Bailers (disposable, PVC, stainless steel, glass), rope
- Flow-through cell
- Field meters with adequate calibration solutions (pH/Eh meter, conductivity meter, dissolved oxygen meter, turbidity meter, batteries, etc.)
- Garden hose
- Explosive gas meter and/or photoionization detector (PID) with calibration supplies
- Complete set of hand tools including a sharp knife, screw drivers, pliers, hacksaw, flashlight, large pipe wrench, hammer, bolt cutters, and replacement locks
- Fish hook with weight and string
- Field filtering equipment and supplies
- Decontamination supplies, such as scrub brushes, Alconox®, distilled water, potable water, 5-gallon bucket, paper towels, aluminum foil
- 5-gallon bucket(s)
- Measuring cup
- Sample bottles/containers (with extras) and preservatives
- Stainless steel spoons, trowels, shovels
- Shipping containers (i.e., coolers)
- Clipboard
- Calculator
- Water resistant clock or watch with second hand
- First aid kit

"BEFORE" SUPPLIES SUMMARY

Prior to going into the field, the field team should review the following supplies checklist, noting that project specific supplies may not be included in this list:

- Laboratory grade non-phosphate detergent (Alconox®)
- Appropriate personal protective equipment appropriate to the contaminants of concern, such as nitrile gloves, Tyvek, boots, hardhat, safety glasses, hearing protection, etc.
- Bags of ice
- Plastic garbage bags
- Plastic sheeting
- Sufficient quantities of potable and laboratory grade deionized water for cleaning and equipment blanks
- Methanol
- Isopropyl alcohol
- Clean rags and paper towels
- Electrical tape, duct tape, and wide transparent tape
- Hand soap
- Regular, ballpoint, and indelible pens
- Hollow braid polyethylene rope

After providing adequate notification (lab, state and/or federal agencies), performing the presampling maintenance and calibration, obtaining the site and well keys, and packing the supplies and equipment, the field activities are ready to be performed.

"AFTER" – PROJECT FILE REVIEW & CREATION

It is the responsibility of each field crew member to review his/her own field notes and time sheet for accuracy and completeness. All errors to the field notes should be corrected, dated, and initialed for Project Manager review. Once reviewed by the field team member, the Project Field Book, all field forms, photographs, chain-of-custodies etc. must be

photocopied, scanned (if required), downloaded, etc. and then given to the Project Manager in an organized file folder in a timely manner. Avoiding delay during this step is critical, especially when there are severe time constraints for the project.

REFERENCES

1. Wilson, Neal. *Soil Water and Ground Water Sampling*, 1995

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FIELD OPERATING PROCEDURES

Geoprobe Drilling Procedures

FOP 078.0

GEOPROBE DRILLING PROCEDURES

PURPOSE

This guideline presents a method for direct-push drilling a borehole through unconsolidated materials, including soils or overburden.

PROCEDURE

The following procedure will be used to drill a borehole for sampling and/or well installation, using direct-push methods and equipment.

1. Follow Benchmark's Field Operating Procedure (FOP) for Drill Site Selection Procedure prior to implementing any drilling activity.

2. Perform drill rig safety checks with the driller by completing the Drilling Safety Checklist form (sample attached).

3. Conduct tailgate health and safety meeting with project team and drillers by completing the Tailgate Safety Meeting Form (sample attached).

4. Calibrate air-monitoring equipment in accordance with the appropriate Benchmark's FOPs or manufacturers recommendations.

5. Ensure all drilling equipment (i.e., rods, 4-foot sampler, dedicated PVC sleeves) appear clean and free of soil prior to initiating any subsurface intrusion. Decontamination of drilling equipment should be in accordance with Benchmark's Drilling and Excavation Equipment Decontamination Procedures FOP.

6. Mobilize the Geoprobe™ rig to the site and position over the borehole.

7. Level and stabilize the rig and recheck the rig location against the planned drilling location.

8. Fully advance the sampler into the subsurface using an ATV-mounted direct-push Geoprobe™ drill rig and 1.5-inch diameter sampler, typically 4-feet in length and fitted with a dedicated PVC sleeve, for each four-foot core of soil.

9. Retrieve the 4-foot sample core from the driller, place on a piece of polyethylene tarp, and cut open using a sharp utility knife.

10. Visually characterize each 4-foot soil core using the Unified Soil Classification System (USCS) in accordance with Benchmark's Soil Description Procedures Using the USCS FOP.

11. Scan each 4-foot core for total volatile organic vapors with a calibrated Photovac 2020 PID equipped with a 10.6 eV lamp, and report any visual and/or olfactory observations. Record PID scan measurements in the Project Field Book and appropriate field forms.

12. If required, collect a representative soil sample for headspace determinations. In general, soil samples representative of each 4-foot core interval are collected, placed in a sealable plastic bag, and kept at or near room temperature (approximately 65-70° F) for a minimum of 15 minutes prior to measurement. Record PID headspace determination measurements in the Project Field Book and appropriate field forms.

13. Check sampler and rods periodically during drilling to ensure the boring is plumb. Adjust rig position as necessary to maintain plumb.

14. Continue drilling until reaching the assigned total depth, or until sampler refusal occurs. Sampler refusal is when the drilling penetration drops below 0.1 feet per 2 minutes, with the full weight of the rig on the sampler.

15. Plug and abandon boreholes not used for temporary well installation in accordance with Benchmark's Field Operating Procedure for Abandonment of Borehole. Boreholes to be used as temporary wells should be completed in accordance with Benchmark's Temporary Well (Piezometer) Construction Procedures FOP.

16. Decontaminate all non-dedicated drilling tools between boring locations using potable tap water and a phosphate-free detergent (i.e., Alconox™) in accordance with Benchmark's Drilling and Excavation Equipment Decontamination Procedures FOP.

OTHER PROCEDURAL ISSUES

- Borings will not be over drilled (rat holed) without the express permission of the Benchmark field supervisor. All depth measurements should be accurate to the nearest 0.1 foot, to the extent practicable.

- Potable water may be placed in the sampler stem if critically necessary for borehole control or to accomplish sampling objectives. This will be performed only with the express permission of the Benchmark field supervisor.

ATTACHMENTS

Drilling Safety Checklist (sample)
Tailgate Safety Meeting Form (sample)

REFERENCES

Benchmark FOPs:

001 *Abandonment of Borehole Procedures*
017 *Drill Site Selection Procedure*
018 *Drilling and Excavation Equipment Decontamination Procedures*
054 *Soil Description Procedures Using the USCS*
077 *Temporary Well (Piezometer) Construction Procedures*

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

DRILLING SAFETY CHECKLIST

Project: **Supplemental Phase II RFI/ICMs**	Date:
Project No.: **0041-009-500**	Drilling Company:
Client: **RealCo., Inc.**	Drill Rig Type:

ITEMS TO CHECK	OK	ACTION NEEDED
"Kill switches" installed by the manufacturer are in operable condition and all workers at the drill site are familiar with their location and how to activate them?		
"Kill switches" are accessible to workers on both sides of the rotating stem? NOTE: Optional based on location and number of switches provided by the manufacturer.		
Cables on drill rig are free of kinks, frayed wires, "bird cages" and worn or missing sections?		
Cables are terminated at the working end with a proper eye splice, either swag Coupling or using cable clamps?		
Cable clamps are installed with the saddle on the live or load side? Clamps should alternated and should be of the correct size and number for the cable size to which installed. Clamps are complete with no missing parts?		
Hooks installed on hoist cables are the safety type with a functional prevent accidental separation?		
Safety latches are functional and completely span the entire th ok ve positive action to close the throat except when manually ed fo nec disconnecting a load?		
Drive shafts, belts, chain drives and universal jo be to prevent accidental insertion of hands and fingers or tools		
Outriggers shall be extended prior to and w sed cradle. Hydraulic outriggers must maintain pressure to d ize the drill rig even while unattended.		
Outriggers shall be properly supporte und su o p settling into the soil.		
Controls are properly lab ave fre ntr ontrols should not be blocked or locked in an p on.		
Safeties on any device sha zed.		
Controls shall be operated smoothly and ca ifting devices shall not be jerked or operated erratically to overcome res		
Slings, chokers and lifting devices are d before using and are in proper working order? Damaged units are removed from service and are properly tagged?		
Shackles and clevises are in proper working order and pins and screws are fully inserted before placing under a load?		
High-pressure hoses have a safety (chain, cable or strap) at each end of the hose section to prevent whipping in the event of a failure?		
Rotating parts of the drill string shall be free of sharp projections or hooks, which could entrap clothing or foreign objects?		
Wire ropes should not be allowed to bend around sharp edges without cushion material.		
The exclusion zone is centered over the borehole and the radius is equal or greater than the boom height?		

ITEMS TO CHECK	OK	ACTION NEEDED

SAMPLE

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

DRILLING SAFETY CHECKLIST

Project: **Supplemental Phase II RFI/ICMs**	Date:
Project No.: **0041-009-500**	Drilling Company:
Client: **RealCo., Inc.**	Drill Rig Type:

ITEMS TO CHECK	OK	ACTION NEEDED
The work area around the borehole shall be kept clear of trip hazards and walking surfaces should be free of slippery material.		
Workers shall not proceed higher than the drilling deck without a fall restraining device and must attach the device in a manner to restrict fall to less than 6 feet.		
A fire extinguisher of appropriate size shall be immediately available to the drill c… drill crew shall have received annual training on proper use of the fire extinguisher.		
29 CFR 1910.333 © (3) Except where electrical distribution and transmission lines … energized and visibly grounded, drill rigs will be operated proximate t… under, by, or … fer lines only in accordance with the following: .333 © (3) (ii) 50 kV or less -minimum clearance is 1… For 50 kV or over - 10ft. Plus ½ in. For each add… **Benchmark Policy: Maintain 20 feet clearanc…**		
29 CFR 1910.333 © (3) (iii) While the rig is in t… wit… the do… ion, clearance from energized power lines will be maint… llow… Less than 50 kV - 4 feet 50 to 365 kV - 10 feet 365 to 720 kV - 16 feet		

Name: _____ (printed)

Signed: _____ Date: _____

SAMPLE

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TAILGATE SAFETY MEETING FORM

Project Name: Date: Time:
Project Number: Client:
Work Activities:

HOSPITAL INFORMATION:

Name:
Address: *City:* *State:* *Zip:*
Phone No.: *Ambulance Phone No.*

SAFETY TOPICS PRESENTED:

Chemical Hazards:

Physical Hazards: Slips, Trips, Falls

PERSONAL PROTECTIVE EQUIPMENT:

Activity:	A	B	C	D
Activity:	A	B	C	D
Activity:	A	B	C	D
Activity:	A	B	C	D
Activity:	A	B	C	D

New Equipment:

Other Safety Topic (s): (aggressive fauna)
tobacco products is prohibited in the Exclusion Zone (EZ)

SAMPLE

ATTENDEES

Name Printed	Signatures

Meeting conducted by:

BENCHMARK
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FIELD OPERATING PROCEDURES

Calibration & Maintenance of Portable Particulate Meter

FOP 084.0

CALIBRATION AND MAINTENANCE OF PORTABLE PARTICULATE METER

PURPOSE

This guideline describes a method for calibration of a portable particulate meter, specifically the Thermo Electron Corporation MIE DataRAM 4 (Model DR-4000). The DataRAM 4 measures the concentration of airborne particulate matter (liquid or solid), as well as mean particle size, air temperature, and humidity, providing direct and continuous readout as well as electronic recording of the information. This parameter is of interest both as a general indicator of air quality, and because of its pertinence to community air monitoring typically required at most construction/remediation/investigation sites. The DataRAM covers a wide measurement range from 0.0001 mg/m^3 to 400 mg/m^3. With its large capacity internal data logging capabilities with data retrieval on screen or downloaded, the DataRAM can store up to 50,000 data points, including individual point averages, particle size, temperature, and humidity with time stamp as well as overall average and maximum concentration.

Because the DataRAM meter must be factory calibrated once a year, this guideline presents a method for start-up, operation, and maintenance, which is performed to verify instrument function. All field instruments will be calibrated, verified and recalibrated at frequencies required by their respective operating manuals or manufacturer's specifications, but not less than once each year. Field personnel should have access to all operating manuals for the instruments used for the field measurements. This procedure also documents critical maintenance activities for this meter. The user should reference the manufacturer's instruction manual prior to operating this unit.

ACCURACY & PRECISION

The calibrated accuracy of the DataRAM 4 particulate meter is within ± 2% of reading ± precision over the temperature range of -4° to 158° F (-10° to 50° C) and 10 to 95% relative humidity (non-condensing). The precision is ± 1% of reading or ± 0.001 mg/m^3, whichever

is greater (1-second averaging) and ± 0.3% of reading or ± 0.0003 mg/m^3, whichever is greater (10-second averaging).

INSTRUMENT PANEL VIEW

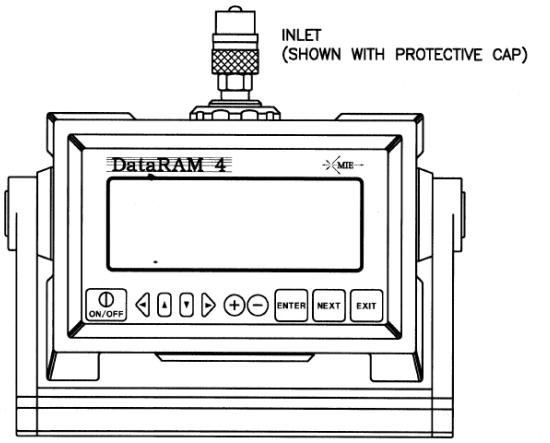


FIGURE 1. FRONT–PANEL VIEW OF DataRAM

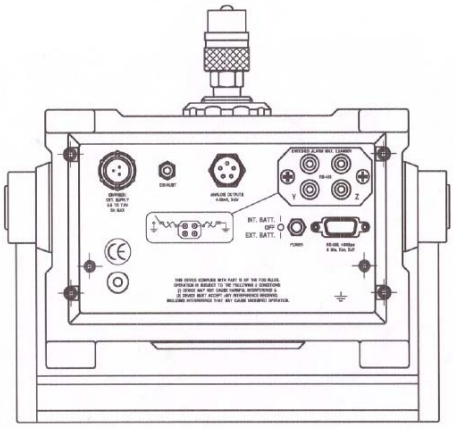


FIGURE 2. BACK–PANEL VIEW OF DataRAM

MAINTENANCE

General Guidelines

The DataRAM 4 is designed to be repaired at the factory. No user serviceable components are inside the metal enclosure of the DataRAM 4 with exception of the filter cartridge or the analytic filter holder. Access to the internal components of the unit by others than authorized MIE personnel voids warranty.

Unless a MALFUNCTION message is displayed, or other operational problems occur, the DataRAM 4 should be returned to the factory once every two years for routine check out, test, cleaning and calibration check.

Battery Charging and Cycling

If the DataRAM 4 is to be operated without its charger/power supply, i.e., deriving power from its internal battery, this battery should be fully charged before initiating a run. The

DataRAM 4 charger/power supply can be connected continuously to the instrument whether the DataRAM 4 is on or off. If the charger/power supply is not connected, the internal battery will discharge very slowly depending on storage temperature. Low storage temperature reduces battery capacity. High storage temperatures, however, reduce battery life which is of the order of 8 years at 20°C (68°F), and only 2 years at 40°C (104°F).

In general, the user should maintain the battery charge as high as possible in order to extend its charge/discharge cycling capacity (this characteristic differs from that of nickel-cadmium batteries).

Instrument Storage

If the DataRAM 4 is to be stored for an extended period of time (i.e., 3 months or more), place the 3-position switch on the back panel in its OFF position (mid-position), in order to minimize gradual battery discharge. This will have no effect on data retention or internal clock function. It is recommended, however, that the battery be recharged every 3 months in order to prolong battery life.

During storage always snap on quick-connect cap over the instrument inlet to protect the sensing optics from gradual dust contamination. Store DataRAM 4 in a dry environment.

Filter Replacement

To replace either of two types of filters used with DataRAM 4, place the instrument on its back rubber feet (front panel facing upward). On the bottom surface of the DataRAM, locate the large threaded plastic filter cover and holding the cross bar, rotate this cover counterclockwise. Remove cover and the filter holder within the open cavity.

HEPA Filter Cartridge Replacement

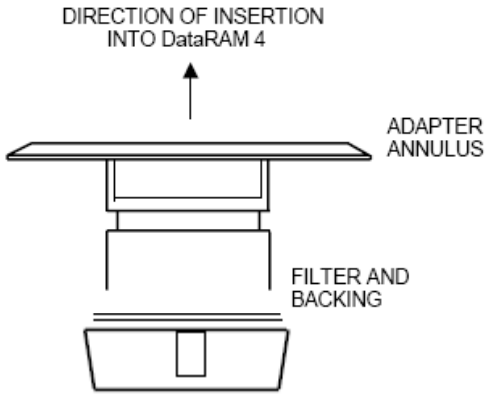
The DataRAM 4 is shipped from the factory with the HEPA filter cartridge installed. This cartridge can be identified by its metallic cover. Remove this cartridge. Clean the internal black rubber gasket against which the cartridge is normally compressed. Install new HEPA-type cartridge (MIE part no. MSA-95302) by inserting its wider ridged end first. Reposition threaded plastic cover engaging threads carefully; rotate cover clockwise, hand tightening firmly. Properly dispose of used cartridge to prevent inadvertent re-use.

Analytic Filter Installation/Replacement

In order to install or replace the analytical filter holder, proceed as follows. Remove the HEPA cartridge normally in place. Remove (separate) the inlet cover (with the blue plug) of the Millipore plastic filter holder from the rest of that holder assembly containing the white membrane filter. Insert firmly the gray plastic adapter annulus into the open face of the filter holder assembly. Remove the red plastic plug from the exhaust nipple of the filter holder assembly. Ensure that all three components of the holder assembly are fully compressed to preclude any leafage. Insert the assembly into the filter cavity of the DataRAM 4 with the gray plastic adapter annulus bearing against the internal black gasket (adapter annulus inserted first). Reposition threaded plastic cover and hand-tighten carefully and firmly. Set aside HEPA cartridge for future use.

In order to remove and/or to replace the membrane filter within its holder, remove the gray plastic adapter annulus and separate (pry apart) the two transparent plastic rings that compress the membrane filter. Make sure to remove and replace only the membrane filter (using tweezers), leaving the white backing disc in the holder. A new membrane filter should then be placed over that backing and the sealing ring should then be inserted to trap and compress the filter and backing discs. For storage, the inlet cap with the blue plug should be inserted as well as the red plug on the back of the filter holder.

Analytical filter holder with adapter annulus inserted



Cleaning of Optical Sensing Chamber

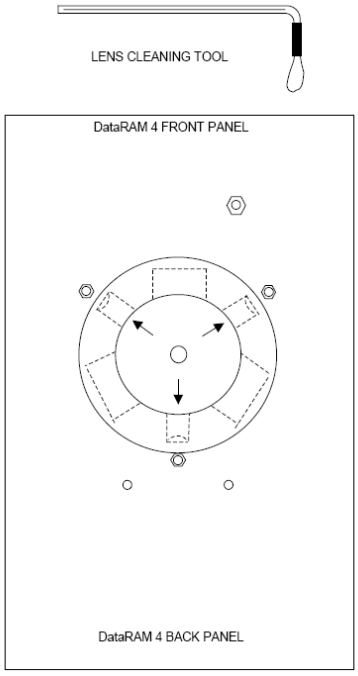
Although the DataRAM 4 incorporates filtered air shielding of the critical optical sensing surfaces, continued sampling of airborne particles at high concentrations may result in gradual build-up of contamination on those interior surfaces of the sensing chamber components. This may cause an excessively high optical background level. If this background level does becomes excessive, the DataRAM 4 will alert the user at the completion of the zeroing sequence by the display of a BACKGROUND HIGH message. If this message is presented, the DataRAM 4 can continue to be operated providing accurate measurements. However, it is then advisable to clean the front surfaces of the optical lenses within the sensing chamber at the first convenient opportunity, as described below. The tools required for this cleaning are: an intense concentrated light source (e.g., flash light) to view the inside of the sensing chamber, denatured alcohol, a soft lint-free cloth, and the special cleaning tool provided with the DataRAM 4 consisting of a cut-off cotton swab inserted in a plastic sleeve and held by a right-angle Allen wrench.

Proceed as follows to clean the lens surfaces within the sensing chamber:

- **Make sure to shut off power completely before proceeding with cleaning**
- Install the stainless steel cover on the inlet of the DataRAM 4 to protect this fitting.
- Place the DataRAM 4 upside down on a table, resting the instrument on the inlet cover and the rear protective bumper.
- Unscrew the gray plastic cover of the filter cavity on the bottom surface of the DataRAM 4.
- Remove the filter cartridge from its cavity.
- Carefully clean the black soft filter-sealing gasket within the filter cavity by wiping it with the lint-free soft cloth. Use alcohol if necessary.
- Shine the concentrated light source into the sensing chamber located about 3 cm (1¼ in.) beyond the soft-sealing gasket in the filter cavity.
- Locate the three smaller side cavities inside the sensing chamber, identified by the arrows on that figure (see page 6). These three cavities contain the lenses of the two sources and the common detector of the DataRAM 4. The frontal surfaces of these lenses are likely to require cleaning if the instrument indicates BACKGROUND HIGH.
- Wet the cotton swab of the lens-cleaning tool with alcohol (e.g., methanol, ethanol, or rubbing alcohol).

- Holding the cleaning tool by its long handle, insert this tool into the sensing chamber without touching the walls of this chamber.
- Direct the cotton swab tip towards the opening of one of the three smaller cavities as indicated by the arrows of the figure below, and insert the cotton tip into this cavity as far as it will go. Gently wipe that internal surface touched by the swab tip by a rotating motion. Carefully withdraw the swab tip from the cavity.
- Repeat previous cleaning step for the other two small cavities.
- Carefully remove the cleaning tool from the sensing chamber. Allow the alcohol to dry leaving the filter cavity open for about 15 minutes.
- Re-insert the filter cartridge into its cavity and close it with its gray plastic cover, hand-tightening it firmly. Remove the inlet cap and store on its pod on the back panel.
- Place the DataRAM 4 right side up and key ON. Proceed to check its optical background by running the ZERO/INITIALIZE check as. The message READY! should appear at the end of this check indicating that the lens contamination has been eliminated. Should the message BACKGROUND HIGH persist after completion of the above-described lens cleaning procedure, please contact the factory.

Lens cleaning tool and bottom view of open filter cavity showing location of sensor chamber lens cavities (arrows).



FACTORY CALIBRATION

For mass concentration measurements, each DataRAM 4 is factory calibrated against a set of reference monitors that, in turn, are periodically calibrated against a gravimetric standard traceable to the National Institute of Standards and Testing (NIST).

The primary factory reference method consists of generating a dust aerosol by means of a fluidized bed generator, and injecting continuously the dust into a mixing chamber from which samples are extracted concurrently by two reference filter collectors and by two master real-time monitors that are used for the routine calibration of every DataRAM 4.

The primary dust concentration reference value is obtained from the weight increase of the two filters due to the dust collected over a measured period of time, at a constant and known flow rate. The two master real-time monitors are then adjusted to agree with the reference mass concentration value (obtained from averaging the measurements of the two gravimetric filters) to within ±1%.

Three primary, NIST traceable, measurements are involved in the determination of the reference mass concentration: the weight increment from the dust collected on the filter, the sampling flow rate, and the sampling time. Additional conditions that must be met are: a) suspended dust concentration uniformity at all sampling inlets of the mixing chamber; b) identical sample transport configurations leading to reference and instrument under calibration; and c) essentially 100% collection efficiency of filters used for gravimetric reference for the particle size range of the test dust.

The test dust used for the MIE factory calibration of the DataRAM 4 is SAE Fine (ISO Fine) supplied by Powder Technology, Inc. It has the following physical characteristics (as dispersed into the mixing chamber):

- Mass median aerodynamic particle diameter: 2 to 3 μm
- Geometric standard deviation of lognormal size distribution: 2.5
- Bulk density: 2.60 to 2.65 g/cm3
- Refractive index: 1.54

In addition to the mass calibration described above, the DataRAM 4 is factory calibrated using a gas with known scattering coefficient in order to adjust the relative scattering irradiance at the two source wavelengths.

ATTACHMENTS

None

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

FIELD OPERATING PROCEDURES

Field Quality Control Procedures

FOP 085.0

FIELD QUALITY CONTROL PROCEDURES

PURPOSE

In addition to traditional environmental samples (e.g., soil, groundwater, wipe, vapor etc.) described in each project work plan, site-specific field quality assurance/quality control (QA/QC) samples are typically collected and analyzed to support the required third-party data usability assessment effort of a project. Site-specific QA/QC samples generally include matrix spikes, matrix spike duplicates, blind duplicates (where appropriate), and trip blanks which accompany aqueous volatile organic compound (VOC) samples only.

The number of QA/QC field samples (blind duplicate, matrix spike/matrix spike duplicate, trip blank, field blank, or equipment blank) will be designated prior to field mobilization, but final QC sample locations will be contingent upon field conditions. This procedure outlines and discusses each QA/QC sample that may be required during a project.

PROCEDURE

A brief summary of each QA/QC sample identified above is presented below. Where appropriate, the procedure to be used to collect these samples is also presented.

- **Trip Blanks** – A sufficient number of trip blanks for VOC analysis must be prepared by the laboratory and delivered to the sampling team prior to a sampling event, typically two or three 40-ml VOA vials with organic free reagent water. One sealed blank will be carried into the field per day along with the sample containers for each day that water matrix volatile organic samples are collected. Trip blanks will be transported and handled in the same manner as the actual samples. The results of the trip blank analysis will be reviewed to evaluate if the potential for sample contamination during transportation and handling exists. The trip blanks will be analyzed for the same VOCs (and method) as the project groundwater samples.

- **Blind Duplicate** – One blind duplicate must be collected and analyzed per 20 samples collected per matrix (i.e., soil, groundwater, soil vapor, etc.). The location

of the sample collection point will not be disclosed to the analytical laboratory, therefore the field sample containers will be returned to the laboratory identified only as the "blind duplicate." The well or sample location will be recorded in the Project Field Book or handheld RuggedReader® Pocket PC and on the field data sheets, and the results will be compared to review analytical precision. Sample analysis will be identical to the original sample per the project work plan. The Blind Duplicate sample must be collected simultaneously from the same source under identical conditions as the original sample.

- **Matrix Spike/Matrix Spike Duplicate (MS/MSD)** – A sufficient volume of sample will be collected at one sampling location per sampling event for MS/MSD analysis per matrix (i.e., soil and groundwater only). The laboratory will report the results of the MS/MSD analysis, which will be reviewed for sampling and analysis precision and accuracy. Sample analysis will be identical to the original sample per the project work plan. The MS/MSD sample must be collected simultaneously from the same source under identical conditions as the original sample.

- **Equipment (Rinsate) Blank** – In general, dedicated sampling equipment is used to minimize field decontamination time and avoid the need for equipment blanks; however there may be instances where the use of non-dedicated equipment cannot be avoided. An equipment blank will be collected for each day of sampling activity when non-dedicated sampling equipment is used. These equipment blank samples will be used as a QC check of the decontamination procedures for sampling equipment. Sample analysis for the equipment blank will consist of the most comprehensive parameter list used for risk assessment in which the non-dedicated equipment was used for environmental sample collection. During most projects, every effort to use dedicated sampling equipment should be made in order to minimize field decontamination time and avoid the need for equipment blanks. Equipment Blank sampling procedure is as follows:
    - Non-dedicated equipment are to be decontaminated in accordance with Benchmark's Non-disposable and Non-dedicated Sampling Equipment Decontamination procedures prior to use in the field. If organic-free

deionized water (generally provided by the laboratory) is not available for decontamination, equipment will be allowed to thoroughly air dry.
  - Once properly rinsed or allowed to air dry, analyte-free water (provided by the laboratory) is poured appropriately over or through the decontaminated sample collection device, collected in a sample container, and returned to the laboratory as a sample.

- **Field Blank** – A field blank is a sample of the unused final decontamination rinse water that is collected at the sampling site and returned to the laboratory as a sample. Sample analysis for the field blank will consist of the most comprehensive parameter list used during the investigation.

- **Split Sample** – A split sample is a sample that has been portioned into two or more containers from a single sample container or sample mixing container. Samples for VOC analysis should never be mixed prior to splitting.

- **Blank Wipe Samples** – There are two types of blank wipe samples, an equipment blank and a field blank that may be required per the project work plan, both are described below:
  - Equipment Blank – Required only if reusable templates are used for wipe sample collection. The decontaminated template is wiped with a hexane saturated swab. The swab is placed in the appropriate sample container and returned to the laboratory as a sample.
  - Field Blank – Clean disposable gloves are wiped with a hexane saturated swab. The swab is placed in the appropriate sample container and returned to the laboratory as a sample.

REFERENCES

Benchmark FOPs:

040 Non-disposable and Non-dedicated Sampling Equipment Decontamination

APPENDIX D

SITE-WIDE HEALTH AND SAFETY PLAN (HASP)

Health and Safety Plan for Remedial Investigation Activities

154 South Ogden Street Site
Buffalo, New York

July 2012 0249-012-003

Prepared for:

154 South Ogden, LLC

Prepared by:

Benchmark Environmental Engineering & Sciences, PLLC

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

2558 Hamburg Turnpike, Buffalo, New York | phone: (716) 856-0635 | fax: (716) 856-0583

SITE HEALTH AND SAFETY PLAN
for
BROWNFIELD CLEANUP PROGRAM
RI ACTIVITIES

154 SOUTH OGDEN STREET SITE
BUFFALO, NEW YORK

July 2012 0249-012-003

Prepared for:

154 SOUTH OGDEN, LLC

154 SOUTH OGDEN STREET SITE

HEALTH AND SAFETY PLAN FOR RI ACTIVITIES

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ACKNOWLEDGEMENT

Plan Reviewed by (initial):

Corporate Health and Safety Director: Michael M. Yount

Project Manager: Bryan C. Hann

Designated Site Safety and Health Officer: Bryan C. Hann

Acknowledgement:
I acknowledge that I have reviewed the information contained in this site-specific Health and Safety Plan, and understand the hazards associated with performance of the field activities described herein. I agree to comply with the requirements of this plan.

NAME (PRINT)	SIGNATURE	DATE

154 SOUTH OGDEN STREET SITE

HEALTH AND SAFETY PLAN FOR RI ACTIVITIES

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1.0 INTRODUCTION

1.1 General

In accordance with OSHA requirements contained in 29 CFR 1910.120, this Health and Safety Plan (HASP) describes the specific health and safety practices and procedures to be employed by Benchmark Environmental Engineering & Science, PLLC and TurnKey Environmental Restoration, LLC employees (referred to jointly hereafter as "Benchmark-TurnKey") during Remedial Investigation (RI) activities at the 154 South Ogden Street Site located in the City of Buffalo, New York. This HASP presents procedures for Benchmark-TurnKey employees who will be involved with RI field activities; it does not cover the activities of other contractors, subcontractors or other individuals on the Site. These firms will be required to develop and enforce their own HASPs as discussed in Section 2.0. Benchmark-TurnKey accepts no responsibility for the health and safety of contractor, subcontractor or other personnel.

This HASP presents information on known Site health and safety hazards using available historical information, and identifies the equipment, materials and procedures that will be used to eliminate or control these hazards. Environmental monitoring will be performed during the course of field activities to provide real-time data for on-going assessment of potential hazards.

1.2 Background

The Site is an approximate 21 acre portion of a greater 27 acre parcel located at 154 South Ogden Street near the northwest intersection of Mineral Springs Road in Buffalo, New York (see Figure 1). The property is generally bound to the north by the Buffalo River, to the east by South Ogden Street, to the south by private property and to the west by railroad tracks and vacant property owned by the City of Buffalo. Surrounding property use is primarily residential with some small commercial properties. Historic records indicate that the site was not previously developed; however a portion of the property was previously traversed by the Buffalo River and was filled with concurrent straightening of the river channel.

1.3 Known and Suspected Environmental Conditions

LCS Inc. (LCS) conducted a Phase I Environmental Site Assessment for the subject property in July 2011, and the findings are presented below.

- Railroad tracks were identified adjacent to the Site.
- Multiple debris piles noted dumped on-Site.

EmpireGeo Services, Inc. (EmpireGeo) completed a subsurface geotechnical report and test investigation on the subject property in December 2011, and the findings are presented below:

- Elevated PID readings and presence of industrial fill across the Site.
- Elevated PAHs and heavy metals exceeding Part 375 Industrial SCOs.
- Report notes that a "black sandy material with a sweet chemical odor" was detected at multiple locations.

Benchmark Environmental Engineering and Science, PLLC, (Benchmark) conducted a supplemental Site investigation on the subject property, and the findings are summarized below:

- Petroleum-impacted soils were encountered which necessitated informing the NYSDEC Spill Hotline, Spill File No. 1112887 was opened for the Site
- Elevated PAHS, and metals were detected above Part 375 Restricted-Residential SCOs
- Elevated VOCs and SVOCs were detected above GWQS
- The investigation noted apparent incinerator ash and non-soil fill materials

The RI will be performed in support of the BCP to determine the nature and extent of impacts from known and suspected environmental conditions on this parcel.

1.4 Parameters of Interest

Based on the previous investigations, primary constituents of potential concern (COPCs) in soil and groundwater at the Site include:

- **Inorganic Compound –** The inorganic COPCs potentially present at elevated concentrations are metals, including: arsenic, barium, copper, and lead.

- **Volatile Organic Compounds (VOCs)** – VOCs present at elevated concentration may include Acetone, benzene, 2-butanone, chlorobenzene, 1,2-dichlorobenzene, 1,4-dichlorobenzene, and isopropylbenzene.

- **Semi-Volatile Organic Compounds (SVOCs) –** SVOCs present at elevated concentrations include the Polycyclic Aromatic Hydrocarbons (PAHs) anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, fluoranthene, fluorine, naphthalene, phenanthrene, pyrene, and 1,2-dichlorobenzene. Although PAHs are commonly found in urban soil environments, they are present at the Site at concentrations that are significantly elevated compared to typical "background" levels.

1.5 Overview of RI Activities

Benchmark-TurnKey personnel will be on-site to observe and perform RI activities. The field activities to be completed as part of the RI are described below. Planned RI activities are more fully described in the RI Work Plan for the Site.

Remedial Investigation Activities

1. **Surface/Subsurface Soil Sampling:** Benchmark-TurnKey personnel plan to: complete eighteen soil borings to collect subsurface soil samples; and, collect eight surface soil samples.

2. **Monitoring Well Installation/Development and Sampling:** Benchmark-TurnKey will observe the installation of on-Site groundwater monitoring wells; develop the wells, and collect groundwater samples for the purpose of determining the nature and extent of potential COPC impacts.

2.0 ORGANIZATIONAL STRUCTURE

This section of the HASP describes the lines of authority, responsibility and communication as they pertain to health and safety functions at the Site. The purpose of this chapter is to identify the personnel who impact the development and implementation of the HASP and to describe their roles and responsibilities. This section also identifies other contractors and subcontractors involved in work operations and establishes the lines of communications among them for health and safety matters. The organizational structure described in this chapter is consistent with the requirements of 29 CFR 1910.120(b)(2). This section will be reviewed by the Project Manager and updated as necessary to reflect the current organizational structure at this Site.

2.1 Roles and Responsibilities

All Benchmark-Turnkey personnel on the Site must comply with the minimum requirements of this HASP. The specific responsibilities and authority of management, safety and health, and other personnel on this Site are detailed in the following paragraphs.

2.1.1 Corporate Health and Safety Director

The Benchmark-Turnkey Corporate Health and Safety Director is ***Mr. Michael M. Yount***. The Corporate Health and Safety Director responsible for developing and implementing the Health and Safety program and policies for Benchmark Environmental Engineering & Science, PLLC and TurnKey Environmental Restoration, LLC, and consulting with corporate management to ensure adequate resources are available to properly implement these programs and policies. The Corporate Health and Safety Director coordinates Benchmark-TurnKey's Health and Safety training and medical monitoring programs and assists project management and field staff in developing site-specific health and safety plans.

2.1.2 Project Manager

The Project Manager for this Site is ***Mr. Bryan C. Hann.*** The Project Manager has the responsibility and authority to direct all Benchmark-TurnKey work operations at the

Site. The Project Manager coordinates safety and health functions with the Site Safety and Health Officer, and bears ultimate responsibility for proper implementation of this HASP. He may delegate authority to expedite and facilitate any application of the program, including modifications to the overall project approach as necessary to circumvent unsafe work conditions. Specific duties of the Project Manager include:

- Preparing and coordinating the Site work plan.
- Providing Benchmark-Turnkey workers with work assignments and overseeing their performance.
- Coordinating health and safety efforts with the Site Safety and Health Officer (SSHO).
- Reviewing the emergency response coordination plan to assure its effectiveness.
- Serving as the primary liaison with Site contractors and the property owner.

2.1.3 Site Safety and Health Officer

The Site Safety and Health Officer (SSHO) for this Site is ***Mr. Bryan C. Hann***. The qualified alternate SSHO is ***Mr. Richard L. Dubisz.*** The SSHO reports to the Project Manager. The SSHO is on-site or readily accessible to the Site during all work operations and has the authority to halt Site work if unsafe conditions are detected. The specific responsibilities of the SSHO are:

- Managing the safety and health functions for Benchmark-TurnKey personnel on the Site.
- Serving as the point of contact for safety and health matters.
- Ensuring that Benchmark-Turnkey field personnel working on the Site have received proper training (per 29 CFR Part 1910.120(e)), that they have obtained medical clearance to wear respiratory protection (per 29 CFR Part 1910.134), and that they are properly trained in the selection, use and maintenance of personal protective equipment, including qualitative respirator fit testing.

- Performing or overseeing Site monitoring as required by the HASP.
- Assisting in the preparation and review of the HASP.
- Maintaining site-specific safety and health records as described in this HASP.
- Coordinating with the Project Manager, Site Workers, and Contractor's SSHO as necessary for safety and health efforts.

2.1.4 Site Workers

Site workers are responsible for: complying with this HASP or a more stringent HASP, if appropriate (i.e., Contractor and Subcontractor's HASP); using proper PPE; reporting unsafe acts and conditions to the SSHO; and following the safety and health instructions of the Project Manager and SSHO.

2.1.5 Other Site Personnel

Other Site personnel who will have health and safety responsibilities will include the Drilling Contractor, who will be responsible for developing, implementing and enforcing a Health and Safety Plan equally stringent or more stringent than Benchmark-Turnkey's HASP. Benchmark-Turnkey assumes no responsibility for the health and safety of anyone outside its direct employ. Each Contractor's HASP shall cover all non- Benchmark-Turnkey Site personnel. Each Contractor shall assign a SSHO who will coordinate with Benchmark-TurnKey's SSHO as necessary to ensure effective lines of communication and consistency between contingency plans.

In addition to Benchmark-Turnkey and Contractor personnel, other individuals who may have responsibilities in the work zone include subcontractors and governmental agencies performing Site inspection work (i.e., the New York State Department of Environmental Conservation). The Contractor shall be responsible for ensuring that these individuals have received OSHA-required training (29 CFR 1910.120(e)), including initial, refresher and site-specific training, and shall be responsible for the safety and health of these individuals while they are on-site.

3.0 HAZARD EVALUATION

Due to the presence of certain contaminants at the Site, the possibility exists that workers will be exposed to hazardous substances during field activities. The principal points of exposure would be through direct contact with and incidental ingestion of soil, and through the inhalation of contaminated particles or vapors. Other points of exposure may include direct contact with groundwater. In addition, the use of drilling and/or medium to large-sized construction equipment (e.g., excavator) will also present conditions for potential physical injury to workers. Further, since work will be performed outdoors, the potential exists for heat/cold stress to impact workers, especially those wearing protective equipment and clothing. Adherence to the medical evaluations, worker training relative to chemical hazards, safe work practices, proper personal protection, environmental monitoring, establishment work zones and Site control, appropriate decontamination procedures and contingency planning outlined herein will reduce the potential for chemical exposures and physical injuries.

3.1 Chemical Hazards

As discussed in Section 1.3, historic activities have potentially resulted in impacts to Site soils and groundwater. Visual and olfactory observations, as well as elevated PID readings, indicate a potential VOC impact to Site soil. In addition to VOCs, soil and groundwater may be impacted by SVOCs (PAHs) and/or inorganic compounds due to historic use as a dump, according to USDA Erie county soil maps. Table 1 lists exposure limits for airborne concentrations of the COPCs identified in Section 1.4 of this HASP. Brief descriptions of the toxicology of the prevalent COPCs and related health and safety guidance and criteria are provided below.

1. **Arsenic (CAS #7440-38-2)** is a naturally occurring element and is usually found combined with one or more elements, such as oxygen or sulfur. Inhalation is a more important exposure route than ingestion. First phase exposure symptoms include nausea, vomiting, diarrhea and pain in the stomach. Prolonged contact is corrosive to the skin and mucus membranes. Arsenic is considered a Group A human carcinogen by the USEPA. Exposure via inhalation is associated with an increased risk of lung cancer. Exposure via the oral route is associated with an increased risk of skin cancer.

2. **Barium (CAS #7440-39-3)** a naturally occurring alkaline earth metal that appears silver-yellow when exposed to air. Barium sulfate and barium carbonate are often found in nature and sometimes found naturally in drinking water and food. Other compounds, such as barium chloride, barium nitrate, and barium hydroxide, are manufactured from barium sulfate. Barium sulfate is used in drilling muds and to make paints, bricks, tiles, glass, and rubber. Barium carbonate, barium chloride, and barium hydroxide, are used to make ceramics, insect and rat poisons, and additives for oils and fuels; in the treatment of boiler water; in the production of barium greases; as a component in sealants, paper manufacturing, and sugar refining; in animal and vegetable oil refining. Ingestion of barium may result in: vomiting, abdominal cramps, diarrhea, difficulties in breathing, increased or decreased blood pressure, numbness around the face, and muscle weakness.

3. **Copper (CAS #7440-50-8)** is a naturally occurring and essential element in plants and animals. However high levels of copper can be harmful. Breathing high levels of copper can cause irritation of the nose and throat. Ingesting high levels of copper can cause nausea, vomiting, and diarrhea. Very high doses of copper can cause damage to the liver and kidneys, and possibly death.

4. **Lead (CAS #7439-92-1**) can affect almost every organ and system in our bodies. The most sensitive is the central nervous system, particularly in children. Lead also damages kidneys and the immune system. The effects are the same whether it is breathed or swallowed. Lead may decrease reaction time, cause weakness in fingers, wrists or ankles and possibly affect memory. Lead may cause anemia.

5. Volatile Organic Compounds:

- **Acetone (CAS #67-64-1)** is an organic compound, a colorless, mobile, flammable liquid with a distinct smell and taste. Used to make plastics, fibers, drugs, and other chemicals. Inhalation of moderate to high levels of acetone for short periods of time can cause nose, throat, lung, and eye irritation; headaches; light headedness; confusion; increased pulse rate; effects on blood; nausea; vomiting; unconsciousness and possibly coma. Ingestion of very high levels of acetone can result in unconsciousness and damage to the skin of the mouth. Dermal contact can result in irritation and damage to the skin.
- **Benzene (CAS #71-43-2)** poisoning occurs most commonly through inhalation of the vapor, however, benzene can also penetrate the skin and poison in that way. Locally, benzene has a comparatively strong irritating effect, producing erythema and burning and, in more severe cases, edema and blistering. Exposure to high concentrations of the vapor (i.e., 3,000

ppm or higher) may result in acute poisoning characterized by the narcotic action of benzene on the central nervous system. In acute poisoning, symptoms include confusion, dizziness, tightening of the leg muscles, and pressure over the forehead. Chronic exposure to benzene (i.e., long-term exposure to concentrations of 100 ppm or less) may lead to damage of the blood-forming system. Benzene is very flammable when exposed to heat or flame and can react vigorously with oxidizing materials.

- **2-Butanone (CAS #78-93-3)** also known as Methyl Ethyl Ketone (MEK) is an organic compound, a colorless liquid with a sharp, sweet odor. It is used in paints, coatings, glues, and cleaning agents. Exposure to 2-butanone may result in irritation of the nose, throat, skin and eyes.

- **Chlorobenzene (CAS #108-90-7)** is a colorless, faint almond-like odor, flammable liquid. Acute exposure predominantly results in irritation of the respiratory tract, eyes and skin.

- **Dichlorobenzene (1,1-, 1,2-, and 1,3-) (CAS #106-46-7, 95-50-1, 541-73-1)** are colorless to pale yellow, pleasant odor, flammable liquid. Acute exposure predominantly results in irritation of the respiratory tract, eyes and skin. Symptoms may include headache, nausea, swelling of the eyes, runny nose, drowsiness, central nervous system depression, kidney and liver damage, unconsciousness and death.

- **Isopropylbenzene (CAS #98-82-8)** is a colorless, gasoline-like odor flammable liquid. Acute exposure typically results in irritation of the eyes, mucous membranes and upper respiratory tract. Can be absorbed through the skin. Possible central nervous system depressant. Symptoms may include irritation, dizziness, nausea, lack of coordination and narcosis.

6. **Polycyclic Aromatic Hydrocarbons (PAHs)** are formed as a result of the pyrolysis and incomplete combustion of organic matter such as fossil fuel. PAH aerosols formed during the combustion process disperse throughout the atmosphere, resulting in the deposition of PAH condensate in soil, water and on vegetation. In addition, several products formed from petroleum processing operations (e.g., roofing materials and asphalt) also contain elevated levels of PAHs. Hence, these compounds are widely dispersed in the environment. PAHs are characterized by a molecular structure containing three or more fused, unsaturated carbon rings. Seven of the PAHs are classified by USEPA as probable human carcinogens (USEPA Class B2). These are: benzo(a)pyrene;

benzo(a)anthracene; benzo(b)fluoranthene; benzo(k)fluoranthene; chrysene; dibenzo(a,h)anthracene; and indeno(1,2,3-cd)pyrene. The primary route of exposure to PAHs is through incidental ingestion and inhalation of contaminated particulates. PAHs are characterized by an organic odor, and exist as oily liquids in pure form. Acute exposure symptoms may include acne-type blemishes in areas of the skin exposed to sunlight.

With respect to the anticipated RI activities discussed in Section 1.5, possible routes of exposure to the above-mentioned contaminants are presented in Table 2. The use of proper respiratory equipment, as outlined in Section 7.0 of this HASP, will minimize the potential for exposure to airborne contamination. Exposure to contaminants through dermal and other routes will also be minimized through the use of protective clothing (Section 7.0), safe work practices (Section 6.0), and proper decontamination procedures (Section 12.0).

3.2 Physical Hazards

RI field activities at the 154 South Ogden Site may present the following physical hazards:

- The potential for physical injury during heavy construction equipment use, such as backhoes, excavators and drilling equipment.
- The potential for heat/cold stress to employees during the summer/winter months (see Section 10.0).
- The potential for slip and fall injuries due to rough, uneven terrain and/or open excavations.

These hazards represent only some of the possible means of injury that may be present during RI operations and sampling activities at the Site. Since it is impossible to list all potential sources of injury, it shall be the responsibility of each individual to exercise proper care and caution during all phases of the work.

4.0 TRAINING

4.1 Site Workers

All personnel performing RI activities at the Site (such as, but not limited to, equipment operators, general laborers, and drillers) and who may be exposed to hazardous substances, health hazards, or safety hazards and their supervisors/managers responsible for the Site shall receive training in accordance with 29 CFR 1910.120(e) before they are permitted to engage in operations in the exclusion zone or contaminant reduction zone. This training includes an initial 40-hour Hazardous Waste Site Worker Protection Course, an 8-hour Annual Refresher Course subsequent to the initial 40-hour training, and 3 days of actual field experience under the direct supervision of a trained, experienced supervisor. Additional site-specific training shall also be provided by the SSHO prior to the start of field activities. A description of topics to be covered by this training is provided below.

4.1.1 Initial and Refresher Training

Initial and refresher training is conducted by a qualified instructor as specified under OSHA 29 CFR 1910.120(e)(5), and is specifically designed to meet the requirements of OSHA 29 CFR 1910.120(e)(3) and 1910.120(e)(8). The training covers, as a minimum, the following topics:

- OSHA HAZWOPER regulations.
- Site safety and hazard recognition, including chemical and physical hazards.
- Medical monitoring requirements.
- Air monitoring, permissible exposure limits, and respiratory protection level classifications.
- Appropriate use of personal protective equipment (PPE), including chemical compatibility and respiratory equipment selection and use.
- Work practices to minimize risk.

- Work zones and Site control.
- Safe use of engineering controls and equipment.
- Decontamination procedures.
- Emergency response and escape.
- Confined space entry procedures.
- Heat and cold stress monitoring.
- Elements of a Health and Safety Plan.
- Spill containment.

Initial training also incorporates workshops for PPE and respiratory equipment use (Levels A, B and C), and respirator fit testing. Records and certification received from the course instructor documenting each employee's successful completion of the training identified above are maintained on file at Benchmark-TurnKey's Buffalo, NY office. Contractors and Subcontractors are required to provide similar documentation of training for all their personnel who will be involved in on-site work activities.

Any employee who has not been certified as having received health and safety training in conformance with 29 CFR 1910.120(e) is prohibited from working in the exclusion and contamination reduction zones, or to engage in any on-site work activities that may involve exposure to hazardous substances or wastes.

4.1.2 Site Training

Site workers are given a copy of the HASP and provided a site-specific briefing prior to the commencement of work to ensure that employees are familiar with the HASP and the information and requirements it contains. The Site briefing shall be provided by the SSHO prior to initiating field activities and shall include:

- Names of personnel and alternates responsible for Site safety and health.

- Safety, health and other hazards present on the Site.
- The site lay-out including work zones and places of refuge.
- The emergency communications system and emergency evacuation procedures.
- Use of PPE.
- Work practices by which the employee can minimize risks from hazards.
- Safe use of engineering controls and equipment on the site.
- Medical surveillance, including recognition of symptoms and signs of over-exposure as described in Chapter 5 of this HASP.
- Decontamination procedures as detailed in Chapter 12 of this HASP.
- The emergency response plan as detailed in Chapter 15 of this HASP.
- Confined space entry procedures, if required, as detailed in Chapter 13 of this HASP.
- The spill containment program as detailed in Chapter 9 of this HASP.
- Site control as detailed in Chapter 11 of this HASP.

Supplemental health and safety briefings will also be conducted by the SSHO on an as-needed basis during the course of the work. Supplemental briefings are provided as necessary to notify employees of any changes to this HASP as a result of information gathered during ongoing Site characterization and analysis. Conditions for which the SSHO may schedule additional briefings include, but are not limited to: a change in Site conditions (e.g., based on monitoring results); changes in the work schedule/plan; newly discovered hazards; and safety incidents occurring during Site work.

4.2 Supervisor Training

On-site safety and health personnel who are directly responsible for or who supervise the safety and health of workers engaged in hazardous waste operations (i.e., SSHO) shall

receive, in addition to the appropriate level of worker training described in Section 4.1, above, 8 additional hours of specialized supervisory training, in compliance with 29 CFR 1910.120(e)(4).

4.3 Emergency Response Training

Emergency response training is addressed in Appendix A of this HASP, Emergency Response Plan.

4.4 Site Visitors

Each Contractor's SSHO will provide a site-specific briefing to all Site visitors and other non-Benchmark-Turnkey personnel who enter the Site beyond the Site entry point. The site-specific briefing will provide information about Site hazards, the Site layout including work zones and places of refuge, the emergency communications system and emergency evacuation procedures, and other pertinent safety and health requirements as appropriate.

Site visitors will not be permitted to enter the exclusion zone or contaminant reduction zones unless they have received the level of training required for Site workers as described in Section 4.1.

5.0 MEDICAL MONITORING

Medical monitoring examinations are provided to Benchmark-Turnkey employees as stipulated under 29 CFR Part 1910.120(f). These exams include initial employment, annual and employment termination physicals for all Benchmark-Turnkey employees involved in hazardous waste site field operations. Post-exposure examinations are also provided for employees who may have been injured, received a health impairment, or developed signs or symptoms of over-exposure to hazardous substances, or were accidentally exposed to substances at concentrations above the permissible exposure limits without necessary personal protective equipment. Such exams are performed as soon as possible following development of symptoms or the known exposure event.

Medical evaluations are performed by Health Works WNY, an occupational health care provider under contract with Benchmark-TurnKey. Health Works WNY's local facility is located at 1900 Ridge Road, West Seneca, New York 14224. The facility can be reached at (716) 823-5050 to schedule routine appointments or post-exposure examinations.

Medical evaluations are conducted according to the Benchmark-TurnKey Medical Monitoring Program and include an evaluation of the workers' ability to use respiratory protective equipment. The examinations include:

- Occupational/medical history review.
- Physical exam, including vital sign measurement.
- Spirometry testing.
- Eyesight testing.
- Audio testing (minimum baseline and exit, annual for employees routinely exposed to greater than 85db).
- EKG (for employees >40 yrs age or as medical conditions dictate).
- Chest X-ray (baseline and exit, and every 5 years).
- Blood biochemistry (including blood count, white cell differential count, serum multiplastic screening).

- Medical certification of physical requirements (i.e., sight, musculoskeletal, cardiovascular) for safe job performance and to wear respiratory protection equipment.

The purpose of the medical evaluation is to determine an employee's fitness for duty on hazardous waste sites; and to establish baseline medical data.

In conformance with OSHA regulations, Benchmark-Turnkey will maintain and preserve medical records for a period of 30 years following termination of employment. Employees are provided a copy of the physician's post-exam report, and have access to their medical records and analyses.

6.0 SAFE WORK PRACTICES

All Benchmark-Turnkey employees shall conform to the following safe work practices during all on-site work activities conducted within the exclusion and contamination reduction zones:

- Eating, drinking, chewing gum or tobacco, smoking, or any practice that increases the probability of hand-to-mouth contact is strictly prohibited.

- The hands and face must be thoroughly washed upon leaving the work area and prior to engaging in any activity indicated above.

- Respiratory protective equipment and clothing must be worn by all personnel entering the Site as required by the HASP or as modified by the Site safety officer. Excessive facial hair (i.e., beards, long mustaches or sideburns) that interferes with the satisfactory respirator-to-face seal is prohibited.

- Contact with surfaces/materials either suspected or known to be contaminated will be avoided to minimize the potential for transfer to personnel, cross contamination and need for decontamination.

- Medicine and alcohol can synergize the effects of exposure to toxic chemicals. Due to possible contraindications, use of prescribed drugs should be reviewed with the Benchmark-TurnKey occupational physician. Alcoholic beverage and illegal drug intake are strictly forbidden during the workday.

- All personnel shall be familiar with standard operating safety procedures and additional instructions contained in this Health and Safety Plan.

- On-site personnel shall use the "buddy" system. No one may work alone (i.e., out of earshot or visual contact with other workers) in the exclusion zone.

- Personnel and equipment in the contaminated area shall be minimized, consistent with effective Site operations.

- All employees have the obligation to immediately report and if possible, correct unsafe work conditions.

- Use of contact lenses on-site will not be permitted. Spectacle kits for insertion into full-face respirators will be provided for Benchmark-TurnKey employees, as

requested and required.

The recommended specific safety practices for working around the contractor's equipment (e.g., backhoes, bulldozers, excavators, drill rigs etc.) are as follows:

- Although the Contractor and subcontractors are responsible for their equipment and safe operation of the Site, Benchmark-TurnKey personnel are also responsible for their own safety.

- Subsurface work will not be initiated without first clearing underground utility services.

- Heavy equipment should not be operated within 20 feet of overhead wires. This distance may be increased if windy conditions are anticipated or if lines carry high voltage. The Site should also be sufficiently clear to ensure the project staff can move around the heavy machinery safely.

- Care should be taken to avoid overhead wires when moving heavy-equipment from location to location.

- Hard hats, safety boots and safety glasses should be worn at all times in the vicinity of heavy equipment. Hearing protection is also recommended.

- The work Site should be kept neat. This will prevent personnel from tripping and will allow for fast emergency exit from the Site.

- Proper lighting must be provided when working at night.

- Construction activities should be discontinued during an electrical storm or severe weather conditions.

- The presence of combustible gases should be checked before igniting any open flame.

- Personnel shall stand upwind of any construction operation when not immediately involved in sampling/logging/observing activities.

- Personnel will not approach the edge of an unsecured trench/excavation closer than 2 feet.

7.0 PERSONAL PROTECTIVE EQUIPMENT

7.1 Equipment Selection

Personal protective equipment (PPE) will be donned when work activities may result in exposure to physical or chemical hazards beyond acceptable limits, and when such exposure can be mitigated through appropriate PPE. The selection of PPE will be based on an evaluation of the performance characteristics of the PPE relative to the requirements and limitations of the Site, the task-specific conditions and duration, and the hazards and potential hazards identified at the Site.

Equipment designed to protect the body against contact with known or suspect chemical hazards are grouped into four categories according to the degree of protection afforded. These categories, designated A through D consistent with United States Environmental Protection Agency (USEPA) Level of Protection designation, are:

- **Level A:** Should be selected when the highest level of respiratory, skin and eye protection is needed.

- **Level B:** Should be selected when the highest level of respiratory protection is needed, but a lesser level of skin protection is required. Level B protection is the minimum level recommended on initial Site entries until the hazards have been further defined by on-site studies. Level B (or Level A) is also necessary for oxygen-deficient atmospheres.

- **Level C:** Should be selected when the types of airborne substances are known, the concentrations have been measured and the criteria for using air-purifying respirators are met. In atmospheres where no airborne contaminants are present, Level C provides dermal protection only.

- **Level D:** Should not be worn on any Site with elevated respiratory or skin hazards. This is generally a work uniform providing minimal protection.

OSHA requires the use of certain PPE under conditions where an immediate danger to life and health (IDLH) may be present. Specifically, OSHA 29 CFR 1910.120(g)(3)(iii) requires use of a positive pressure self-contained breathing apparatus, or positive pressure air-line respirator equipped with an escape air supply when chemical exposure levels present

a substantial possibility of immediate serious injury, illness or death, or impair the ability to escape. Similarly, OSHA 29 CFR 1910.120(g)(3)(iv) requires donning totally-encapsulating chemical protective suits (with a protection level equivalent to Level A protection) in conditions where skin absorption of a hazardous substance may result in a substantial possibility of immediate serious illness, injury or death, or impair the ability to escape.

In situations where the types of chemicals, concentrations, and possibilities of contact are unknown, the appropriate level of protection must be selected based on professional experience and judgment until the hazards can be further characterized. The individual components of clothing and equipment must be assembled into a full protective ensemble to protect the worker from site-specific hazards, while at the same time minimizing hazards and drawbacks of the personal protective gear itself. Ensemble components are detailed below for levels A/B, C, and D protection.

7.2 Protection Ensembles

7.2.1 Level A/B Protection Ensemble

Level A/B ensembles include similar respiratory protection, however Level A provides a higher degree of dermal protection than Level B. Use of Level A over Level B is determined by: comparing the concentrations of identified substances in the air with skin toxicity data, and assessing the effect of the substance (by its measured air concentrations or splash potential) on the small area of the head and neck unprotected by Level B clothing.

The recommended PPE for level A/B is:

- Pressure-demand, full-face piece self-contained breathing apparatus (MSHA/-NIOSH approved) or pressure-demand supplied-air respirator with escape self-contained breathing apparatus (SCBA).
- Chemical-resistant clothing. For Level A, clothing consists of totally-encapsulating chemical resistant suit. Level B incorporates hooded one-or two-piece chemical splash suit.
- Inner and outer chemical resistant gloves.

- Chemical-resistant safety boots/shoes.
- Hardhat.

7.2.2 Level C Protection Ensemble

Level C protection is distinguished from Level B by the equipment used to protect the respiratory system, assuming the same type of chemical-resistant clothing is used. The main selection criterion for Level C is that conditions permit wearing an air-purifying device. The device (when required) must be an air-purifying respirator (MSHA/NIOSH approved) equipped with filter cartridges. Cartridges must be able to remove the substances encountered. Respiratory protection will be used only with proper fitting, training and the approval of a qualified individual. In addition, an air-purifying respirator can be used only if: oxygen content of the atmosphere is at least 19.5% in volume; substances are identified and concentrations measured; substances have adequate warning properties; the individual passes a qualitative fit-test for the mask; and an appropriate cartridge/canister is used, and its service limit concentration is not exceeded.

Recommended PPE for Level C conditions includes:

- Full-face piece, air-purifying respirator equipped with MSHA and NIOSH approved organic vapor/acid gas/dust/mist combination cartridges or as designated by the SSHO.
- Chemical-resistant clothing (hooded, one or two-piece chemical splash suit or disposable chemical-resistant one-piece suit).
- Inner and outer chemical-resistant gloves.
- Chemical-resistant safety boots/shoes.
- Hardhat.

An air-monitoring program is part of all response operations when atmospheric contamination is known or suspected. It is particularly important that the air be monitored thoroughly when personnel are wearing air-purifying respirators. Continual surveillance using direct-reading instruments is needed to detect any changes in air quality necessitating a

higher level of respiratory protection.

7.2.3 Level D Protection Ensemble

As indicated above, Level D protection is primarily a work uniform. It can be worn in areas where only boots can be contaminated, where there are no inhalable toxic substances and where the atmospheric contains at least 19.5% oxygen.

Recommended PPE for Level D includes:

- Coveralls.
- Safety boots/shoes.
- Safety glasses or chemical splash goggles.
- Hardhat.
- Optional gloves; escape mask; face shield.

7.2.4 Recommended Level of Protection for Site Tasks

Based upon current information regarding both the contaminants suspected to be present at the Site and the various tasks that are included in the remedial activities, the minimum required levels of protection for these tasks shall be as identified in Table 3.

8.0 EXPOSURE MONITORING

8.1 General

Based on the results of historic sample analysis and the nature of the proposed work activities at the Site, the possibility exists that organic vapors and/or particulates may be released to the air during intrusive construction activities. Ambient breathing zone concentrations may at times, exceed the permissible exposure limits (PELs) established by OSHA for the individual compounds (see Table 1), in which case respiratory protection will be required. Respiratory and dermal protection may be modified (upgraded or downgraded) by the SSHO based upon real-time field monitoring data.

8.1.1 On-Site Work Zone Monitoring

Benchmark-TurnKey personnel will conduct routine, real-time air monitoring during all intrusive construction phases such as excavation, backfilling, drilling, etc. The work area will be monitored at regular intervals using a photo-ionization detector (PID), combustible gas meter and a particulate meter. Observed values will be recorded and maintained as part of the permanent field record.

Additional air monitoring measurements may be made by Benchmark-TurnKey personnel to verify field conditions during subcontractor oversight activities. Monitoring instruments will be protected from surface contamination during use. Additional monitoring instruments may be added if the situations or conditions change. Monitoring instruments will be calibrated in accordance with manufacturer's instructions before use.

8.1.2 Off-Site Community Air Monitoring

In addition to on-site monitoring within the work zone(s), monitoring at the down-wind portion of the Site perimeter will be conducted. This will provide a real-time method for determination of vapor and/or particulate releases to the surrounding community as a result of ground intrusive investigation work.

Ground intrusive activities are defined by NYSDOH Appendix 1A Generic Community Air Monitoring Plan (Ref. 4) and attached as Appendix C. Ground intrusive

activities include soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells. Non-intrusive activities include the collection of soil and sediment samples or the collection of groundwater samples from existing wells. Continuous monitoring is required for ground intrusive activities and periodic monitoring is required for non-intrusive activities. Periodic monitoring consists of taking a reading upon arrival at a sample location, monitoring while opening a well cap or overturning soil, monitoring while bailing a well, and taking a reading prior to leaving a sampling location. This may be upgraded to continuous if the sampling location is in close proximity to individuals not involved in the Site activity (i.e., on a curb of a busy street). The action levels below will be used during periodic monitoring.

8.2 Monitoring Action Levels

8.2.1 On-Site Work Zone Action Levels

The PID, or other appropriate instrument(s), will be used by Benchmark-TurnKey personnel to monitor organic vapor concentrations as specified in this HASP. Combustible gas will be monitored with the "combustible gas" option on the combustible gas meter or other appropriate instrument(s). In addition, fugitive dust/particulate concentrations will be monitored during major soil intrusion (viz., well/boring installation) using a real-time particulate monitor as specified in this plan. In the absence of such monitoring, appropriate respiratory protection for particulates shall be donned. Sustained readings obtained in the breathing zone may be interpreted (with regard to other Site conditions) as follows for Benchmark-TurnKey personnel:

- Total atmospheric concentrations of unidentified vapors or gases ranging from 0 to 1 ppm above background on the PID) - Continue operations under Level D (see Appendix A).

- Total atmospheric concentrations of unidentified vapors or gases yielding sustained readings from >1 ppm to 5 ppm above background on the PID (vapors not suspected of containing high levels of chemicals toxic to the skin) - Continue operations under Level C (see Appendix A).

- Total atmospheric concentrations of unidentified vapors or gases yielding sustained readings of >5 ppm to 50 ppm above background on the PID - Continue operations under Level B (see Attachment 1), re-evaluate and alter (if possible) construction methods to achieve lower vapor concentrations.

- Total atmospheric concentrations of unidentified vapors or gases above 50 ppm on the PID - Discontinue operations and exit the work zone immediately.

The explosimeter will be used to monitor levels of both combustible gases and oxygen during RI activities. Action levels based on the instrument readings shall be as follows:

- Less than 10% LEL - Continue engineering operations with caution.

- 10-25% LEL - Continuous monitoring with extreme caution, determine source/cause of elevated reading.

- Greater than 25% LEL - Explosion hazard, evaluate source and leave the Work Zone.

- 19.5% - 21% oxygen - proceed with extreme caution; attempt to determine potential source of oxygen displacement.

- Less than 19.5% oxygen - leave work zone immediately.

- 21-25% oxygen - Continue engineering operations with caution.

- Greater than 25% oxygen - Fire hazard potential, leave Work Zone immediately.

The particulate monitor will be used to monitor respirable dust concentrations during all intrusive activities and during handling of Site soil/fill. Action levels based on the instrument readings shall be as follows:

- Less than 50 mg/m^3 - Continue field operations.

- 50-150 mg/m^3 - Don dust/particulate mask or equivalent

- Greater than 150 mg/m^3 - Don dust/particulate mask or equivalent. Initiate

engineering controls to reduce respirable dust concentration (viz., wetting of excavated soils or tools at discretion of Site Health and Safety Officer).

Readings with the organic vapor analyzer, combustible gas meter, and particulate monitor will be recorded and documented on the appropriate Project Field Forms. All instruments will be calibrated before use on a daily basis and the procedure will be documented on the appropriate Project Field Forms.

8.2.2 Community Air Monitoring Action Levels

In addition to the action levels prescribed in Section 8.2.1 for TurnKey-Benchmark personnel on-site, the following criteria shall also be adhered to for the protection of downwind receptors consistent with NYSDOH requirements (Appendix C):

- **ORGANIC VAPOR PERIMETER MONITORING:**
  - If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.

  - If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

  - If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

- All 15-minute readings must be recorded and be available for State (DEC and DOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

o **Special Requirements for Work Within 20 Feet of Potentially Exposed Individuals or Structures**

- When work areas are within 20 feet of potentially exposed populations or occupied structures, the continuous monitoring locations for VOCs and particulates must reflect the nearest potentially exposed individuals and the location of ventilation system intakes for nearby structures. The use of engineering controls such as vapor/dust barriers, temporary negative-pressure enclosures, or special ventilation devices should be considered to prevent exposures related to the work activities and to control dust and odors. Consideration should be given to implementing the planned activities when potentially exposed populations are at a minimum, such as during weekends or evening hours in non-residential settings.

- If total VOC concentrations opposite the walls of occupied structures or next to intake vents exceed 1 ppm, monitoring should occur within the occupied structure (s). Background readings in the occupied spaces must be taken prior to commencement of the planned work. Any unusual background readings should be discussed with NYSDOH prior to commencement of the work.

- If total particulate concentrations opposite the walls of occupied structures or next to intake vents exceed 150 mcg/m3, work activities should be suspended until controls are implemented and are successful in reducing the total particulate concentration to 150 mcg/m3 or less at the monitoring point.

- Depending upon the nature of contamination and remedial activities, other parameters (e.g., explosivity, oxygen, hydrogen sulfide, carbon monoxide) may

also need to be monitored Response levels and actions should be pre-determined, as necessary, for each site.

Additionally, if following the cessation of work and efforts to abate the emission source are unsuccessful, and if sustained organic vapor levels exceed 25 ppm above background within the 20-foot zone for more than 30 minutes, then the **Major Vapor Emission Response Plan** (see below) will automatically be placed into effect.

- **MAJOR VAPOR EMISSION RESPONSE PLAN:**

  Upon activation, the following activities will be undertaken:

  1. All Emergency Response Contacts as listed in this Health and Safety Plan and the Emergency Response Plan (Appendix A) will be advised.

  2. The local police authorities will immediately be contacted by the Site Health and Safety Officer and advised of the situation.

  3. The Site Safety and Health Officer will determine if site workers can safely undertake source abatement measures. Abatement measures may include covering the source area with clean fill or plastic sheeting, or consolidating contaminated materials to minimize surface area. The Site Safety and Health Officer will adjust worker personal protective equipment as necessary to protect workers from over-exposure to organic vapors.

The following personnel are to be notified in the listed sequence in the event that a Major Vapor Emission Plan is activated:

Responsible Person	Contact	Phone Number
SSHO	Police	911
SSHO	State Emergency Response Hotline	(800) 457-7362

Additional emergency numbers are listed in the Emergency Response Plan included as Appendix A.

- **EXPLOSIVE VAPORS:**
  - Sustained atmospheric concentrations of greater than 10% LEL in the work area - Initiate combustible gas monitoring at the downwind portion of the Site perimeter.
  - Sustained atmospheric concentrations of greater than 10% LEL at the downwind Site perimeter – Halt work and contact local Fire Department.

- **AIRBORNE PARTICULATE COMMUNITY AIR MONITORING**
  - Respirable (PM-10) particulate monitoring will be performed on a continuous basis at the upwind and downwind perimeter of the exclusion zone. The monitoring will be performed using real-time monitoring equipment capable of measuring PM-10 and integrating over a period of 15-minutes for comparison to the airborne particulate action levels. The equipment will be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration will be visually assessed during all work activities. All readings will be recorded and will be available for NYSDEC and NYSDOH review. Readings will be interpreted as follows:
  - If the downwind PM-10 particulate level is 100 micrograms per cubic meter (ug/m^3) greater than the background (upwind perimeter) reading for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression provided that the downwind PM-10 particulate levels do not exceed 150 ug/m^3 above the upwind level and that visible dust is not migrating from the work area.
  - If, after implementation of dust suppression techniques downwind PM-10 levels are greater than 150 ug/m^3 above the upwind level, work activities must be stopped and dust suppression controls re-evaluated. Work can resume provided that supplemental dust suppression measures and/or other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 ug/m^3 of the upwind level and in preventing visible dust migration.

Pertinent emergency response information including the telephone number of the Fire Department is included in the Emergency Response Plan (Appendix A).

9.0 SPILL RELEASE/RESPONSE

This chapter of the HASP describes the potential for and procedures related to spills or releases of known or suspected petroleum and/or hazardous substances on the Site. The purpose of this Section of the HASP is to plan appropriate response, control, counter-measures and reporting, consistent with OSHA requirements in 29 CFR 1910.120(b)(4)(ii)(J) and (j)(1)(viii). The spill containment program addresses the following elements:

- Potential hazardous material spills and available controls.
- Initial notification and evaluation.
- Spill response.
- Post-spill evaluation.

9.1 Potential Spills and Available Controls

An evaluation was conducted to determine the potential for hazardous material and oil/petroleum spills at this Site. For the purpose of this evaluation, hazardous materials posing a significant spill potential are considered to be:

- CERCLA Hazardous Substances as identified in 40 CFR Part 302, where such materials pose the potential for release in excess of their corresponding Reportable Quantity (RQ).

- Extremely Hazardous Substances as identified in 40 CFR Part 355, Appendix A, where such materials pose the potential for release in excess of their corresponding Reportable Quantity (RQ).

- Hazardous Chemicals as defined under Section 311(e) of the Emergency Planning and Community Right-To-Know Act of 1986, where such chemicals are present or will be stored in excess of 10,000 lbs.

- Toxic Chemicals as defined in 40 CFR Part 372, where such chemicals are present or will be stored in excess of 10,000 lbs.

- Chemicals regulated under 6NYCRR Part 597, where such materials pose the potential for release in excess of their corresponding Reportable Quantity (RQ).

Oil/petroleum products are considered to pose a significant spill potential whenever

the following situations occur:

- The potential for a "harmful quantity" of oil (including petroleum and non-petroleum-based fuels and lubricants) to reach navigable waters of the U.S. exists (40 CFR Part 112.4). Harmful quantities are considered by USEPA to be volumes that could form a visible sheen on the water or violate applicable water quality standards.

- The potential for any amount of petroleum to reach any waters of NY State, including groundwater, exists. Petroleum, as defined by NY State in 6NYCRR Part 612, is a petroleum-based heat source, energy source, or engine lubricant/maintenance fluid.

- The potential for any release, to soil or water, of petroleum from a bulk storage facility regulated under 6NYCRR Part 612. A regulated petroleum storage facility is defined by NY State as a site having stationary tank(s) and intra-facility piping, fixtures and related equipment with an aggregate storage volume of 1,100 gallons or greater.

The evaluation indicates that, based on Site history and decommissioning records, a hazardous material spill and/or a petroleum product spill is not likely to occur during RI efforts.

9.2 Initial Spill Notification and Evaluation

Any worker who discovers a hazardous substance or oil/petroleum spill will immediately notify the Project Manager and SSHO. The worker will, to the best of his/her ability, report the material involved, the location of the spill, the estimated quantity of material spilled, the direction/flow of the spill material, related fire/explosion incidents, if any, and any associated injuries. The Emergency Response Plan presented in Attachment H2 of this HASP will immediately be implemented if an emergency release has occurred.

Following initial report of a spill, the Project Manager will make an evaluation as to whether the release exceeds RQ levels. If an RQ level is exceeded, the Project Manager will notify the Site owner and NYSDEC at 1-800-457-7362 within 2 hours of spill discovery. The Project Manager will also determine what additional agencies (e.g., USEPA) are to be

contacted regarding the release, and will follow-up with written reports as required by the applicable regulations.

9.3 Spill Response

For all spill situations, the following general response guidelines will apply:

- Only those personnel involved in overseeing or performing containment operations will be allowed within the spill area. If necessary, the area will be roped, ribboned, or otherwise blocked off to prevent unauthorized access.
- Appropriate PPE, as specified by the SSHO, will be donned before entering the spill area.
- Ignition points will be extinguished/removed if fire or explosion hazards exist.
- Surrounding reactive materials will be removed.
- Drains or drainage in the spill area will be blocked to prevent inflow of spilled materials or applied materials.

For minor spills, the Contractor will maintain a Spill Control and Containment Kit in the Field Office or other readily accessible storage location. The kit will consist of, at a minimum, a 50 lb. bag of "speedy dry" granular absorbent material, absorbent pads, shovels, empty 5-gallon pails and an empty open-top 55-gallon drum. Spilled materials will be absorbed, and shoveled into a 55-gallon drum for proper disposal (NYSDEC approval will be secured for on-site treatment of the impacted soils/absorbent materials, if applicable). Impacted soils will be hand-excavated to the point that no visible signs of contamination remains, and will be drummed with the absorbent.

In the event of a major release or a release that threatens surface water, a spill response contractor will be called to the Site. The response contractor may use heavy equipment (e.g., excavator, backhoe, etc.) to berm the soils surrounding the spill Site or create diversion trenching to mitigate overland migration or release to navigable waters. Where feasible, pumps will be used to transfer free liquid to storage containers. Spill control/cleanup contractors in the Western New York area that may be contacted for

assistance include:

- The Environmental Service Group of NY, Inc.: (716) 695-6720
- Environmental Products and Services, Inc.: (716) 447-4700
- Op-Tech: (716) 873-7680

9.4 Post-Spill Evaluation

If a reportable quantity of hazardous material or oil/petroleum is spilled as determined by the Project Manager, a written report will be prepared as indicated in Section 9.2. The report will identify the root cause of the spill, type and amount of material released, date/time of release, response actions, agencies notified and/or involved in cleanup, and procedures to be implemented to avoid repeat incidents. In addition, all re-useable spill cleanup and containment materials will be decontaminated, and spill kit supplies/disposable items will be replenished.

10.0 HEAT/COLD STRESS MONITORING

Since some of the work activities at the Site will be scheduled for both the summer and winter months, measures will be taken to minimize heat/cold stress to Benchmark-TurnKey employees. The Site Safety and Health Officer and/or his or her designee will be responsible for monitoring Benchmark-TurnKey field personnel for symptoms of heat/cold stress.

10.1 Heat Stress Monitoring

Personal protective equipment may place an employee at risk of developing heat stress, a common and potentially serious illnesses often encountered at construction, landfill, waste disposal, industrial or other unsheltered sites. The potential for heat stress is dependent on a number of factors, including environmental conditions, clothing, workload, physical conditioning and age. Personal protective equipment may severely reduce the body's normal ability to maintain temperature equilibrium (via evaporation and convection), and require increased energy expenditure due to its bulk and weight.

Proper training and preventive measures will mitigate the potential for serious illness. Heat stress prevention is particularly important because once a person suffers from heat stroke or heat exhaustion, that person may be predisposed to additional heat related illness. To avoid heat stress, the following steps should be taken:

- Adjust work schedules.
- Modify work/rest schedules according to monitoring requirements.
- Mandate work slowdowns as needed.
- Perform work during cooler hours of the day if possible or at night if adequate lighting can be provided.
- Provide shelter (air-conditioned, if possible) or shaded areas to protect personnel during rest periods.
- Maintain worker's body fluids at normal levels. This is necessary to ensure that the cardiovascular system functions adequately. Daily fluid intake must

approximately equal the amount of water lost in sweat (i.e., eight fluid ounces must be ingested for approximately every 1 lb of weight lost). The normal thirst mechanism is not sensitive enough to ensure that enough water will be consumed to replace lost perspiration. When heavy sweating occurs, workers should be encouraged to drink more.

- Train workers to recognize the symptoms of heat related illness.

Heat-Related Illness - Symptoms:

- Heat rash may result from continuous exposure to heat or humid air.

- Heat cramps are caused by heavy sweating with inadequate electrolyte replacement. Signs and symptoms include: muscle spasms; pain in the hands, feet and abdomen.

- Heat exhaustion occurs from increased stress on various body organs including inadequate blood circulation due to cardiovascular insufficiency or dehydration. Signs and symptoms include: pale, cool, moist skin; heavy sweating; dizziness; nausea; fainting.

- Heat stroke is the most serious form of heat stress. Temperature regulation fails and the body temperature rises to critical levels. Immediate action must be taken to cool the body before serious injury and death occur. Competent medical help must be obtained. Signs and symptoms are: red, hot, usually dry skin; lack of or reduced perspiration; nausea; dizziness and confusion; strong, rapid pulse; coma.

The monitoring of personnel wearing protective clothing should commence when the ambient temperature is 70 degrees Fahrenheit or above. For monitoring the body's recuperative ability to excess heat, one or more of the following techniques should be used as a screening mechanism.

- Heart rate may be measured by the radial pulse for 30 seconds as early as possible in the resting period. The rate at the beginning of the rest period should not exceed 100 beats per minute. If the rate is higher, the next work period should be shortened by 10 minutes (or 33%), while the length of the rest periods stay the same, If the pulse rate is 100 beats per minute at the beginning of the nest rest period, the following work cycle should be further shortened by 33%.

- Body temperature may be measured orally with a clinical thermometer as early as possible in the resting period. Oral temperature at the beginning of the rest period should not exceed 99.6 degrees Fahrenheit. If it does, the next work period should be shortened by 10 minutes (or 33%), while the length of the rest period remains the same. However, if the oral temperature exceeds 99.6 degrees Fahrenheit at the beginning of the next period, the work cycle may be further shortened by 33%. Oral temperature should be measured at the end of the rest period to make sure that it has dropped below 99.6 degrees Fahrenheit. No Benchmark-TurnKey employee will be permitted to continue wearing semi-permeable or impermeable garments when his/her oral temperature exceeds 100.6 degrees Fahrenheit.

10.2 Cold Stress Monitoring

Exposure to cold conditions may result in frostbite or hypothermia, each of which progresses in stages as shown below.

- **Frostbite** occurs when body tissue (usually on the extremities) begins to freeze. The three states of frostbite are:

    1) **Frost nip** - This is the first stage of the freezing process. It is characterized by a whitened area of skin, along with a slight burning or painful sensation. Treatment consists of removing the victim from the cold conditions, removal of boots and gloves, soaking the injured part in warm water (102 to 108 degrees Fahrenheit) and drinking a warm beverage. Do not rub skin to generate friction/ heat.

    2) **Superficial Frostbite** - This is the second stage of the freezing process. It is characterized by a whitish gray area of tissue, which will be firm to the touch but will yield little pain. The treatment is identical for Frost nip.

    3) **Deep Frostbite** - In this final stage of the freezing process the affected tissue will be cold, numb and hard and will yield little to no pain. Treatment is identical to that for Frost nip.

- **Hypothermia** is a serious cold stress condition occurring when the body loses heat at a rate faster than it is produced. If untreated, hypothermia may be fatal.

The stages of hypothermia may not be clearly defined or visible at first, but generally include:

1) Shivering
2) Apathy (i.e., a change to an indifferent or uncaring mood)
3) Unconsciousness
4) Bodily freezing

Employees exhibiting signs of hypothermia should be treated by medical professionals. Steps that can be taken while awaiting help include:

1) Remove the victim from the cold environment and remove wet or frozen clothing. (Do this carefully as frostbite may have started.)

2) Perform active re-warming with hot liquids for drinking (Note: do not give the victim any liquid containing alcohol or caffeine) and a warm water bath (102 to 108 degrees Fahrenheit).

3) Perform passive re-warming with a blanket or jacket wrapped around the victim.

In any potential cold stress situation, it is the responsibility of the Site Health and Safety Officer to encourage the following:

- Education of workers to recognize the symptoms of frostbite and hypothermia.
- Workers should dress warmly, with more layers of thin clothing as opposed to one thick layer.
- Personnel should remain active and keep moving.
- Personnel should be allowed to take shelter in heated areas, as necessary.
- Personnel should drink warm liquids (no caffeine or alcohol if hypothermia has set in).
- For monitoring the body's recuperation from excess cold, oral temperature recordings should occur:

- At the Site Safety Technicians discretion when suspicion is based on changes in a worker's performance or mental status.

- At a workers request.

- As a screening measure, two times per shift, under unusually hazardous conditions (e.g., wind chill less than 20 degrees Fahrenheit or wind chill less than 30 degrees Fahrenheit with precipitation).

- As a screening measure, whenever anyone worker on-site develops hypothermia.

Any person developing moderate hypothermia (a core body temperature of 92 degrees Fahrenheit) will not be allowed to return to work for 48 hours without the recommendation of a qualified medical doctor.

11.0 WORK ZONES AND SITE CONTROL

Work zones around the areas designated for construction activities will be established on a daily basis and communicated to all employees and other Site users by the SSHO. It shall be each Contractor's Site Safety and Health Officer's responsibility to ensure that all Site workers are aware of the work zone boundaries and to enforce proper procedures in each area. The zones will include:

- Exclusion Zone ("Hot Zone") - The area where contaminated materials may be exposed, excavated or handled and all areas where contaminated equipment or personnel may travel. The zone will be delineated by flagging tape. All personnel entering the Exclusion Zone must wear the prescribed level of personal protective equipment identified in Section 7.

- Contamination Reduction Zone - The zone where decontamination of personnel and equipment takes place. Any potentially contaminated clothing, equipment and samples must remain in the Contamination Reduction Zone until decontaminated.

- Support Zone - The part of the site that is considered non-contaminated or "clean." Support equipment will be located in this zone, and personnel may wear normal work clothes within this zone.

In the absence of other task-specific work zone boundaries established by the SSHO, the following boundaries will apply to all investigation and construction activities involving disruption or handling of Site soils or groundwater:

- Exclusion Zone: 50 foot radius from the outer limit of the sampling/construction activity.

- Contaminant Reduction Zone: 100 foot radius from the outer limit of the sampling/construction activity.

- Support Zone: Areas outside the Contaminant Reduction Zone.

Access of non-essential personnel to the Exclusion and Contamination Reduction Zones will be strictly controlled by the SSHO. Only personnel who are essential to the

completion of the task will be allowed access to these areas and only if they are wearing the prescribed level of protection. Entrance of all personnel must be approved by the SSHO.

The SSHO will maintain a Health and Safety Logbook containing the names of Benchmark-TurnKey workers and their level of protection. The zone boundaries may be changed by the SSHO as environmental conditions warrant, and to respond to the necessary changes in work locations on-site.

12.0 DECONTAMINATION

12.1 Decontamination for Benchmark-TurnKey Employees

The degree of decontamination required is a function of a particular task and the environment within which it occurs. The following decontamination procedure will remain flexible, thereby allowing the decontamination crew to respond appropriately to the changing environmental conditions that may arise at the Site. All Benchmark-TurnKey personnel on-site shall follow the procedure below, or the Contractor's procedure (if applicable), whichever is more stringent.

Station 1 - Equipment Drop: Deposit visibly contaminated (if any) re-useable equipment used in the contamination reduction and exclusion zones (tools, containers, monitoring instruments, radios, clipboards, etc.) on plastic sheeting.

Station 2 - Boots and Gloves Wash and Rinse: Scrub outer boots and outer gloves. Deposit tape and gloves in waste disposal container.

Station 3 - Tape, Outer Boot and Glove Removal: Remove tape, outer boots and gloves. Deposit tape and gloves in waste disposal container.

Station 4 - Canister or Mask Change: If worker leaves exclusive 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 cover donned, and worker returns to duty.

Station 5 - Outer Garment/Face Piece Removal: Protective suit removed and deposited in separate container provided by Contractor. Face piece or goggles are removed if used. Avoid touching face with fingers. Face piece and/or goggles deposited on plastic sheet. Hard hat removed and placed on plastic sheet.

Station 6 - Inner Glove Removal: Inner gloves are the last personal protective equipment to be removed. Avoid touching the outside of the gloves with bare fingers. Dispose of these gloves in waste disposal container.

Following PPE removal, personnel shall wash hands, face and forearms with absorbent wipes. If field activities proceed for a duration of 6 consecutive months or longer,

shower facilities will be provided for worker use in accordance with OSHA 29 CFR 1910.120(n).

12.2 Decontamination for Medical Emergencies

In the event of a minor, non-life threatening injury, personnel should follow the decontamination procedures as defined, and then administer first-aid.

In the event of a major injury or other serious medical concern (e.g., heat stroke), immediate first-aid is to be administered and the victim transported to the hospital in lieu of further decontamination efforts unless exposure to a Site contaminant would be considered "Immediately Dangerous to Life or Health."

12.3 Decontamination of Field Equipment

Decontamination of heavy equipment will be conducted by the Contractor in accordance with his approved Health and Safety Plan in the Contamination Reduction Zone. As a minimum, this will include manually removing heavy soil contamination, followed by steam cleaning on an impermeable pad.

Decontamination of all tools used for sample collection purposes will be conducted by Benchmark-TurnKey personnel. It is expected that all tools will be constructed of nonporous, nonabsorbent materials (i.e., metal), which will aid in the decontamination effort. Any tool or part of a tool made of porous, absorbent material (i.e., wood) will be placed into suitable containers and prepared for disposal.

Decontamination of bailers, split-spoons, spatula knives, and other tools used for environmental sampling and examination shall be as follows:

- Disassemble the equipment
- Water wash to remove all visible foreign matter.
- Wash with detergent.
- Rinse all parts with distilled-deionized water.
- Allow to air dry.
- Wrap all parts in aluminum foil or polyethylene.

13.0 CONFINED SPACE ENTRY

OSHA 29 CFR 1910.146 identifies a confined space as a space that is large enough and so configured that an employee can physically enter and do assigned work, has limited or restricted means for entry and exit, and is not intended for continuous employee occupancy. Confined spaces include, but are not limited to, trenches, storage tanks, process vessels, pits, sewers, tunnels, underground utility vaults, pipelines, sumps, wells, and excavations.

Confined space entry by Benchmark-TurnKey employees is not anticipated to be necessary to complete the RI activities identified in Section 2.0. In the event that the scope of work changes or confined space entry appears necessary, the Project Manager will be consulted to determine if feasible engineering alternatives to confined space entry can be implemented. If confined space entry by Benchmark-TurnKey employees cannot be avoided through reasonable engineering measures, task-specific confined space entry procedures will be developed and a confined-space entry permit will be issued through Benchmark-TurnKey's corporate Health and Safety Director. Benchmark-TurnKey employees shall not enter a confined space without these procedures and permits in place.

14.0 FIRE PREVENTION AND PROTECTION

14.1 General Approach

Recommended practices and standards of the National Fire Protection Association (NFPA) and other applicable regulations will be followed in the development and application of Project Fire Protection Programs. When required by regulatory authorities, the project management will prepare and submit a Fire Protection Plan for the approval of the contracting officers, authorized representative or other designated official. Essential considerations for the Fire Protection Plan will include:

- Proper Site preparation and safe storage of combustible and flammable materials.
- Availability of coordination with private and public fire authorities.
- Adequate job-site fire protection and inspections for fire prevention.
- Adequate indoctrination and training of employees.

14.2 Equipment and Requirements

Fire extinguishers will be provided by each Contractor and are required on all heavy equipment and in each field trailer. Fire extinguishers will be inspected, serviced, and maintained in accordance with the manufacturer's instructions. As a minimum, all extinguishers shall be checked monthly and weighed semi-annually, and recharged if necessary. Recharge or replacement shall be mandatory immediately after each use.

14.3 Flammable and Combustible Substances

All storage, handling or use of flammable and combustible substances will be under the supervision of qualified persons. All tanks, containers and pumping equipment, whether portable or stationary, used for the storage and handling of flammable and combustible liquids, will meet the recommendations of the National Fire Protection Association.

14.4 Hot Work

If the scope of work necessitates welding or blowtorch operation, the hot work permit presented in Appendix B will be completed by the SSHO and reviewed/issued by the Project Manager.

15.0 EMERGENCY INFORMATION

In accordance with OSHA 29 CFR Part 1910, an Emergency Response Plan is attached to this HASP as Appendix A. The hospital route map is presented within Appendix A as Figure 1.

16.0 REFERENCES

1. LCS, Inc. *Citizens Preliminary Environmental Site Assessment, 154 South Ogden Street, Buffalo, New York*. Prepared for RBS Citizens, NA Real Estate Risk Services. July 2011.

2. EmpireGeo Services, Inc. *Geotechnical Report and Environmental Test Pit Investigation, 154 South Ogden Street Site, Buffalo, New York*. December 2011.

3. Benchmark Environmental Engineering and Science, PLLC. *Supplemental Phase II Site Investigation Report, 154 South Ogden Street Site, Buffalo, New York*. March 2012.

4. New York State Department of Health. *Generic Community Air Monitoring Plan, Appendix 1A, NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation.* May 2010.

TABLES

TABLE 1

TOXICITY DATA FOR CONSTITUENTS OF POTENTIAL CONCERN

154 South Ogden Street Site
Buffalo, New York

Parameter	Synonyms	CAS No.	Code	Concentration Limits [1]		
				PEL	TLV	IDLH
Volatile Organic Compounds (VOCs): ppm						
Acetone	2-propanone; dimethyl ketone	67-64-1	*none*	1000	500	2500
Benzene	Benzol, Phenyl hydride	71-43-2	Ca	1	0.5	500
2-Butanone	Methyl ethyl ketone, MEK	78-93-3	*none*	200	200	3000
Chlorobenzene	benzene chloride, monochlorobenzene, Phenyl chloride	108-90-7	*none*	75	10	1000
1,2-Dichlorobenzene	*none*	95-50-1	C	50	25	200
1,4-Dichlorobenzene	p-dichlorobenzene, 1,4-DCB, paradichlorobenzol, paracide, para-zene,di-chloricide, paramoth, PDB	106-46-7	Ca	75	10	150
Isopropylbenzene	Cumene	98-82-8	*none*	50	50	900
Semi-volatile Organic Compounds (SVOCs)[2]: ppm						
Anthracene	*none*	120-12-7	*none*	--	--	--
Benzo(a)anthracene	*none*	56-55-3	*none*	--	--	--
Benzo(a)pyrene	*none*	50-32-8	*none*	--	--	--
Benzo(b)fluoranthene	*none*	205-99-2	*none*	--	--	--
Benzo(k)fluoranthene	*none*	207-08-9	*none*	--	--	--
Chrysene	*none*	218-01-9	*none*	--	--	--
Dibenzo(a,h)anthracene	*none*	53-70-3	*none*	--	--	--
Fluoranthene	*none*	206-44-0	*none*	--	--	--
Fluorene	*none*	86-73-7	*none*	--	--	--
Naphthalene	Naphthalin, Tar camphor, White tar	91-20-3	C	10	10	250
Phenanthrene	*none*	85-01-8	*none*	--	--	--
Pyrene	*none*	129-00-0	*none*	--	--	--
1,2-Dichlorobenzene	*none*	95-50-1	C	50	25	200
Inorganic Compounds: mg/m [2]						
Arsenic	*none*	7440-38-2	Ca	0.01	0.01	5
Barium	*none*	7440-39-3	*none*	--	0.5	--
Copper	*none*	7440-50-8	*none*	1	1	100
Lead	*none*	7439-92-1	*none*	0.05	0.15	100

Ca = NIOSH considers constituent to be a potential occupational carcinogen.
C = EPA has classified constituent as a possible human carcinogen.
-- = indicates that an IDLH has not as yet been determined.
TLV = Threshold Limit Value, established by American Conference of Industrial Hygienists (ACGIH), equals the maximum exposure concentration allowable for 8 hours/day @ 40 hours/week.
TLVs are the amounts of chemicals in the air that almost all healthy adult workers are predicted to be able to tolerate without adverse effects. There are three types.

TLV-TWA (TLV-Time-Weighted Average) which is averaged over the normal eight-hour day/forty-hour work week. (Most TLVs.)

TLV-STEL or Short Term Exposure Limits are 15 minute exposures that should not be exceeded for even an instant. It indicates a higher exposure that can be tolerated for a short time without adverse effect as long as the total time weighted average is not exceeded.

TLV-C or Ceiling limits are the concentration that should not be exceeded during any part of the working exposure.
Unless the initials "STEL" or "C" appear in the Code column, the TLV value should be considered to be the eight-hour TLV-TWA.
PEL = Permissible Exposure Limit, established by OSHA, equals the maximium exposure conconcentration allowable for 8 hours per day @ 40 hours per week

TABLE 2

POTENTIAL ROUTES OF EXPOSURE TO THE CONSTITUENTS OF POTENTIAL CONCERN

154 South Ogden Street Site
Buffalo, New York

Activity [1]	Direct Contact with Soil/Fill	Inhalation of Vapors or Dust	Direct Contact with Groundwater
Remedial Investigation Tasks			
Subsurface Soil Sampling	x	x	
Surface Soil Sampling	x	x	
Monitoring Well Installation/Development and Sampling	x	x	x

Notes:
1. Activity as described in Section 1.5 of the Health and Safety Plan.

TABLE 3

REQUIRED LEVELS OF PROTECTION
FOR RI ACTIVITIES

154 South Ogden Street Site
Buffalo, New York

Activity	Respiratory Protection [1]	Clothing	Gloves [2]	Boots [2, 3]	Other Required PPE/Modifications [2, 4]
Remedial Investigation Tasks					
Suburface Soil Sampling	Level D (upgrade to Level C if necessary)	Work Uniform or Tyvek	L/N	outer: L inner: STSS	HH SGSS
Surface Soil Sampling	Level D (upgrade to Level C if necessary)	Work Uniform or Tyvek	L/N	outer: L inner: STSS	HH SGSS
Monitoring Well Installation/Development and Sampling	Level D (upgrade to Level C if necessary)	Work Uniform or Tyvek	L/N	outer: L inner: STSS	SGSS

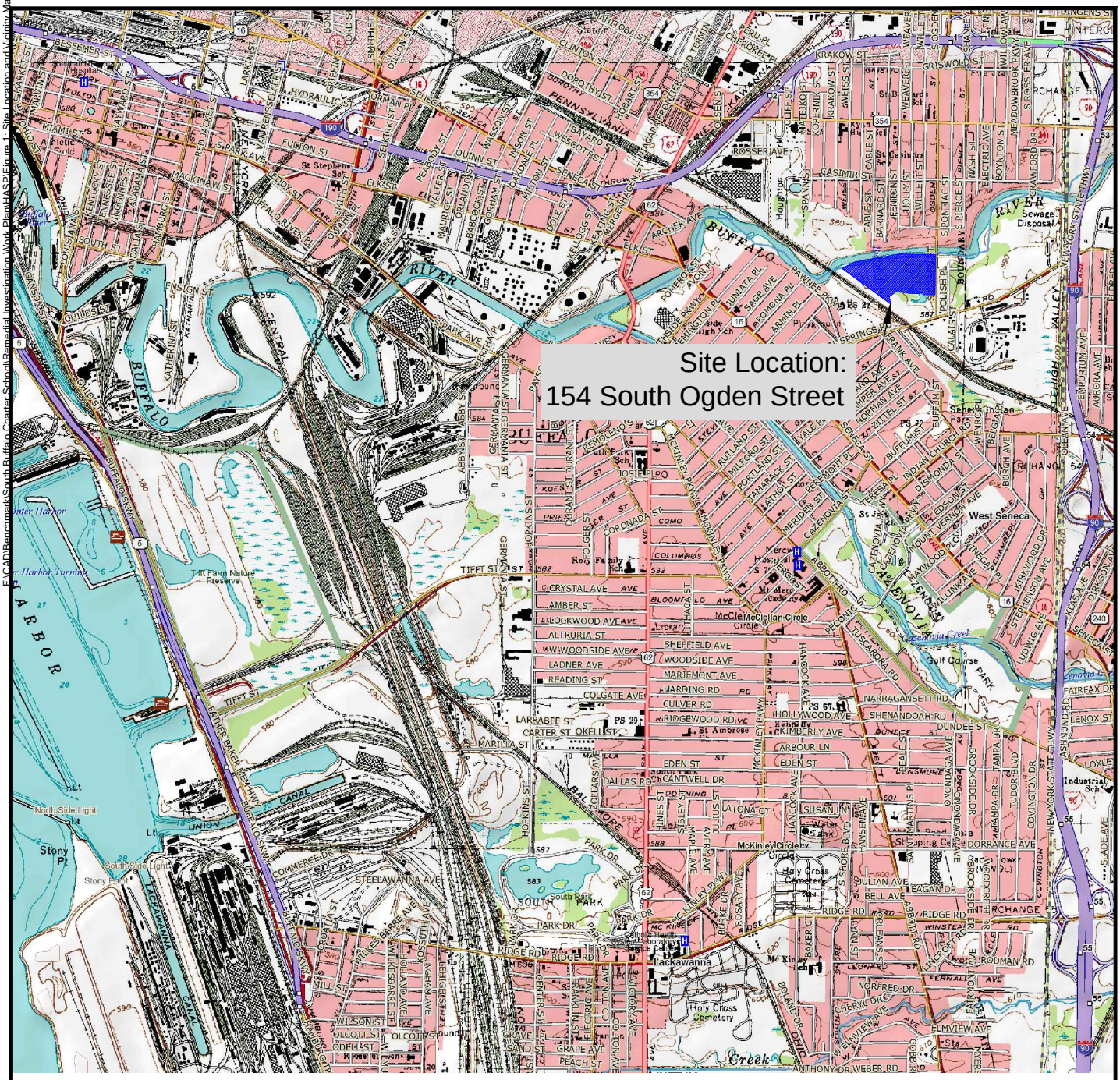
Notes:

1. Respiratory equipment shall conform to guidelines presented in Section 7.0 of this HASP. The Level C requirement is an air-purifying respirator equiped with organic compound/acid gas/dust cartridge.
2. HH = hardhat; L= Latex; L/N = latex inner glove, nitrile outer glove; N = Nitrile; SGSS = safety glasses with sideshields; STSS = steel toe safety shoes.
3. Latex outer boot (or approved overboot) required whenever contact with contaminated materials may occur. SSHO may downgrade to STSS (steel-toed safety shoes) if contact will be limited to cover/replacement soils.
4. Dust masks shall be donned as directed by the SSHO (site safety and health officer) or site safety technician whenever potentially contaminated airborne particulates (i.e., dust) are present in significant amounts in the breathing zone. Goggles may be substituted with safety glasses w/side-shields whenever contact with contaminated liquids is not anticipated.

FIGURES

E:\CAD\Benchmark\South Buffalo Charter School\Remedial Investigation Work Plan\HASP\Figure 1 - Site Location and Vicinity Map.dwg

FIGURE 1



N

3000' 0' 3000' 6000'

SCALE: 1 INCH = 3000 FEET
SCALE IN FEET
(approximate)

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0599

PROJECT NO.: 0249-012-003

DATE: APRIL 2012

DRAFTED BY: BCH

SITE LOCATION AND VICINITY MAP

HEALTH AND SAFETY PLAN

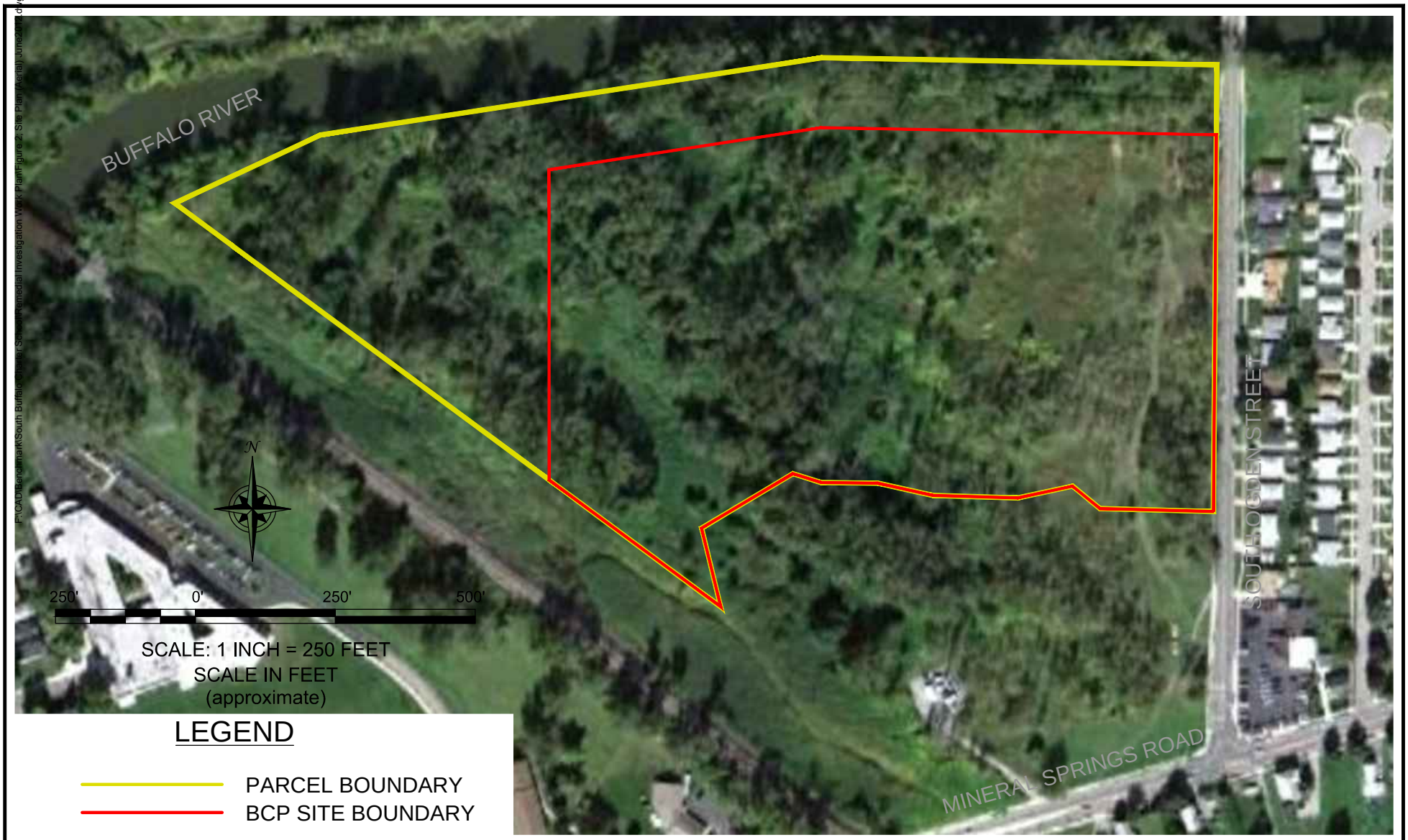
154 SOUTH OGDEN STREET

BUFFALO, NEW YORK

PREPARED FOR

154 SOUTH OGDEN, LLC

P:\CAD\Benchmark\South Buffalo Charter School\Remedial Investigation Work Plan\Figure 2, Site Plan (Aerial) June2012.dwg



BENCHMARK
ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0599

PROJECT NO.: 0249-012-003

DATE: JUNE 2012

DRAFTED BY: NTM

SITE PLAN (AERIAL)

REMEDIAL INVESTIGATION WORK PLAN

154 SOUTH OGDEN STREET SITE

BUFFALO, NEW YORK

PREPARED FOR

154 SOUTH OGDEN, LLC

FIGURE 2

APPENDIX A

EMERGENCY RESPONSE PLAN

BENCHMARK

EMERGENCY RESPONSE PLAN
for
BROWNFIELD CLEANUP PROGRAM
RI ACTIVITIES

154 SOUTH OGDEN STREET SITE
BUFFALO, NEW YORK

June 2012 0249-012-003

Prepared for:

154 SOUTH OGDEN, LLC

Prepared By:

Benchmark Environmental Engineering & Science, PLLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716)856-0599

154 SOUTH OGDEN STREET SITE
HEALTH AND SAFETY PLAN FOR RI ACTIVITIES
APPENDIX A: EMERGENCY RESPONSE PLAN

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Figure 1 Hospital Route Map

1.0 GENERAL

This report presents the site-specific Emergency Response Plan (ERP) referenced in the Site Health and Safety Plan (HASP) prepared for Remedial Investigation (RI) activities at the 154 South Ogden Street Site in Buffalo, New York. This appendix of the HASP describes potential emergencies that may occur at the Site; procedures for responding to those emergencies; roles and responsibilities during emergency response; and training all workers must receive in order to follow emergency procedures. This ERP also describes the provisions this Site has made to coordinate its emergency response planning with other contractors on-site and with off-site emergency response organizations.

This ERP is consistent with the requirements of 29 CFR 1910.120(l) and provides the following site-specific information:

- Pre-emergency planning.
- Personnel roles, lines of authority, and communication.
- Emergency recognition and prevention.
- Safe distances and places of refuge.
- Evacuation routes and procedures.
- Decontamination procedures.
- Emergency medical treatment and first aid.
- Emergency alerting and response procedures.
- Critique of response and follow-up.
- Emergency personal protective equipment (PPE) and equipment.

2.0 PRE-EMERGENCY PLANNING

This Site has been evaluated for potential emergency occurrences, based on site hazards, the required work tasks, the site topography, and prevailing weather conditions. The results of that evaluation indicate the potential for the following site emergencies to occur at the locations indicated.

Type of Emergency:

1. Medical, due to physical injury
2. Fire

Source of Emergency:

1. Slip/trip/fall
2. Fire

Location of Source:

1. Non-specific

3.0 ON-SITE EMERGENCY RESPONSE EQUIPMENT

Emergency procedures may require specialized equipment to facilitate worker rescue, contamination control and reduction, or post-emergency clean up. Emergency response equipment available on the Site is listed below. The equipment inventory and storage locations are based on the potential emergencies described above. This equipment inventory is designed to meet on-site emergency response needs and any specialized equipment needs that off-site responders might require because of the hazards at this Site but not ordinarily stocked.

Any additional personal protective equipment (PPE) required and stocked for emergency response is also listed below. During an emergency, the Emergency Response Coordinator (ERC) is responsible for specifying the level of PPE required for emergency response. At a minimum, PPE used by emergency responders will comply with Section 7.0, Personal Protective Equipment, of this HASP. Emergency response equipment is inspected at regular intervals and maintained in good working order. The equipment inventory is replenished as necessary to maintain response capabilities.

Emergency Equipment	Quantity	Location
First Aid Kit	1	Site Vehicle
Chemical Fire Extinguisher	2 (minimum)	All heavy equipment and Site Vehicle

Emergency PPE	Quantity	Location
Full-face respirator	1 for each worker	Site Vehicle
Chemical-resistant suits	4 (minimum)	Site Vehicle

4.0 EMERGENCY PLANNING MAPS

An area-specific map of the Site will be developed on a daily basis during performance of field activities. The map will be marked to identify critical on-site emergency planning information, including: emergency evacuation routes, a place of refuge, an assembly point, and the locations of key site emergency equipment. Site zone boundaries will be shown to alert responders to known areas of contamination. There are no major topographical features, however the direction of prevailing winds/weather conditions that could affect emergency response planning are also marked on the map. The map will be posted at site-designated place of refuge and inside the Benchmark personnel field vehicle.

5.0 EMERGENCY CONTACTS

The following identifies the emergency contacts for this ERP.

Emergency Telephone Numbers:

Project Manager: *Bryan C. Hann*
Work: (716) 856-0599
Mobile: (716) 870-1165

Corporate Health and Safety Director: *Michael M. Yount*
Work: (716) 856-0599
Mobile: (716) 983-3143

Site Safety and Health Officer (SSHO): *Bryan C. Hann*
Work: (716) 856-0599
Mobile: (716) 870-1165

Alternate SSHO: *Richard L. Dubisz*
Work: (716) 856-0635
Mobile: (716) 998-4334

MERCY HOSPITAL of BUFFALO (ER):	(716) 826-7000
FIRE:	911
AMBULANCE:	911
BUFFALO POLICE:	911
STATE EMERGENCY RESPONSE HOTLINE:	(800) 457-7362
NATIONAL RESPONSE HOTLINE:	(800) 424-8802
NYSDOH:	(518) 402-7860
NYSDEC:	(716) 851-7220
NYSDEC 24-HOUR SPILL HOTLINE:	(800) 457-7252

The Site location is:
154 South Ogden Street Site
154 South Ogden Street
Buffalo, New York 14210
Site Phone Number: (Insert Cell Phone or Field Trailer): _____

6.0 EMERGENCY ALERTING & EVACUATION

Internal emergency communication systems are used to alert workers to danger, convey safety information, and maintain site control. Any effective system can be employed. Two-way radio headsets or field telephones are often used when work teams are far from the command post. Hand signals and air-horn blasts are also commonly used. Every system must have a backup. It shall be the responsibility of each contractor's Site Health and Safety Officer to ensure an adequate method of internal communication is understood by all personnel entering the site. Unless all personnel are otherwise informed, the following signals shall be used.

1) Emergency signals by portable air horn, siren, or whistle: two short blasts, personal injury; continuous blast, emergency requiring site excavation.

2) Visual signals: hand gripping throat, out of air/cannot breathe; hands on top of head, need assistance; thumbs up, affirmative/ everything is OK; thumbs down, no/negative; grip partner's wrist or waist, leave area immediately.

If evacuation notice is given, site workers leave the worksite with their respective buddies, if possible, by way of the nearest exit. Emergency decontamination procedures detailed in Section 12.0 of the HASP are followed to the extent practical without compromising the safety and health of site personnel. The evacuation routes and assembly area will be determined by conditions at the time of the evacuation based on wind direction, the location of the hazard source, and other factors as determined by rehearsals and inputs from emergency response organizations. Wind direction indicators are located so that workers can determine a safe up wind or cross wind evacuation route and assembly area if not informed by the emergency response coordinator at the time the evacuation alarm sounds. Since work conditions and work zones within the site may be changing on daily basis, it shall be the responsibility of the construction Site Health and Safety Officer to review evacuation routes and procedures as necessary and to inform all Benchmark-TurnKey workers of any changes.

Personnel exiting the site will gather at a designated assembly point. To determine that everyone has successfully exited the site, personnel will be accounted for at the assembly

site. If any worker cannot be accounted for, notification is given to the SSHO (***Bryan Hann*** or ***Richard Dubisz***) so that appropriate action can be initiated. Contractors and subcontractors on this site have coordinated their emergency response plans to ensure that these plans are compatible and that source(s) of potential emergencies are recognized, alarm systems are clearly understood, and evacuation routes are accessible to all personnel relying upon them.

7.0 EXTREME WEATHER CONDITIONS

In the event of adverse weather conditions, the Site Safety and Health Officer in conjunction with the Contractor's SSHO will determine if engineering operations can continue without sacrificing the health and safety of site personnel. Items to be considered prior to determining if work should continue include but are not limited to:

- Potential for heat/cold stress.
- Weather-related construction hazards (e.g., flooding or wet conditions producing undermining of structures or sheeting, high wind threats, etc).
- Limited visibility.
- Potential for electrical storms.
- Limited site access/egress (e.g., due to heavy snow)

8.0 EMERGENCY MEDICAL TREATMENT & FIRST AID

Personnel Exposure:

The following general guidelines will be employed in instances where health impacts threaten to occur or acute exposure is realized:

- Skin Contact: Use copious amounts of soap and water. Wash/rinse affected area for at least 15 minutes. Decontaminate and provide medical attention. Eyewash stations will be provided on site. If necessary, transport to Mercy Hospital.

- Inhalation: Move to fresh air and, if necessary, transport to Mercy Hospital.

- Ingestion: Decontaminate and transport to Mercy Hospital.

Personal Injury:

Minor first-aid will be applied on-site as deemed necessary. In the event of a life threatening injury, the individual should be transported to Mercy Hospital via ambulance. The Site Health and Safety Officer will supply available chemical specific information to appropriate medical personnel as requested.

First aid kits will conform to Red Cross and other applicable good health standards, and shall consist of a weatherproof container with individually sealed packages for each type of item. First aid kits will be fully equipped before being sent out on each job and will be checked weekly by the SSHO to ensure that the expended items are replaced.

Directions to Mercy Hospital (see Figure 1):

The following directions describe the best route from the Site to Mercy Hospital:

- Travel South along South Ogden St. toward Mineral Springs Rd.
- Turn right onto Mineral Springs Rd.
- Turn left onto Seneca St.
- Turn right onto Cazenovia St.
- ER at corner of Abbott Rd. and Cazenovia Street - 565 Abbott Rd.

9.0 EMERGENCY RESPONSE CRITIQUE & RECORD KEEPING

Following an emergency, the SSHO and Project Manager shall review the effectiveness of this Emergency Response Plan (ERP) in addressing notification, control and evacuation requirements. Updates and modifications to this ERP shall be made accordingly. It shall be the responsibility of each contractor to establish and assure adequate records of the following:

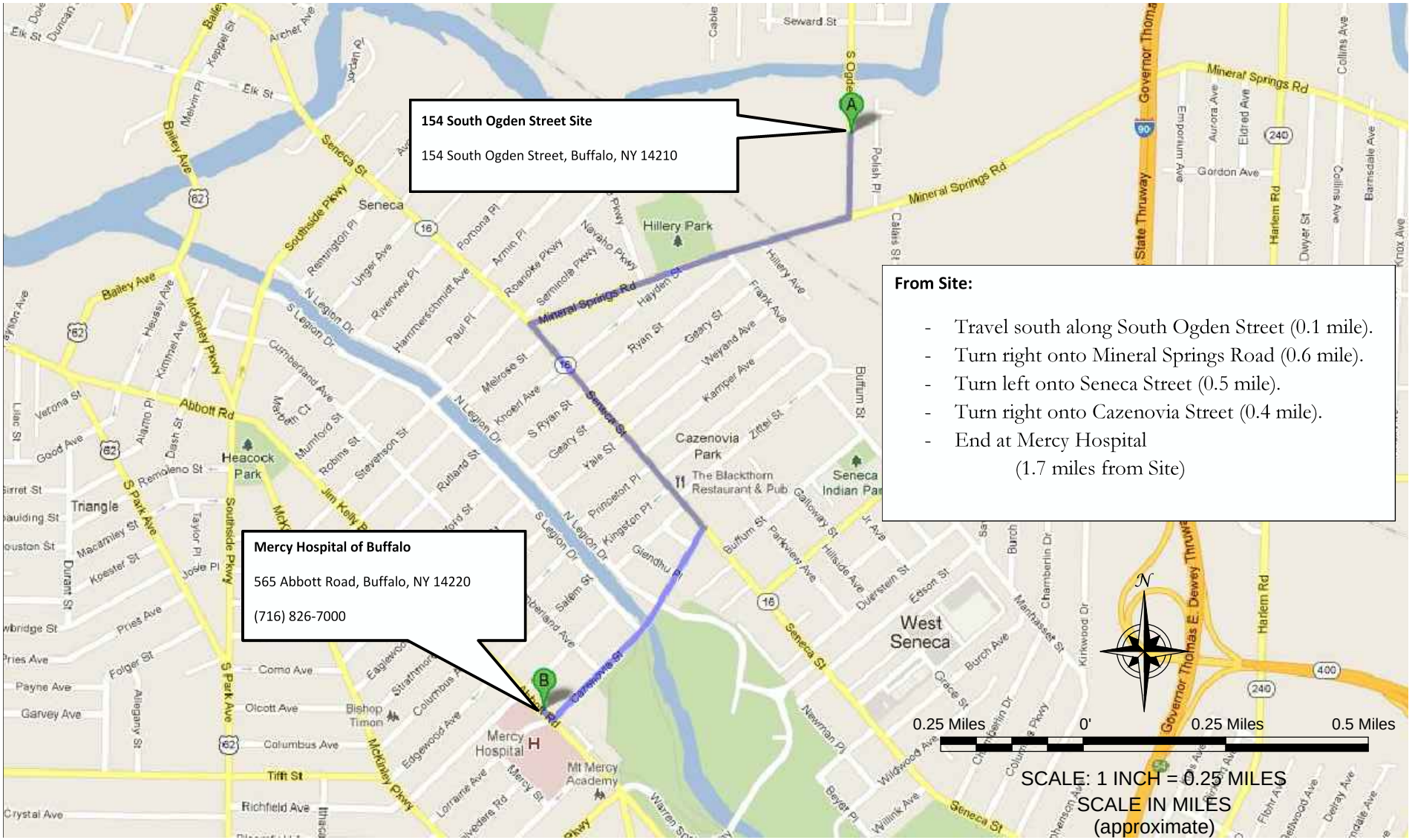
- Occupational injuries and illnesses.
- Accident investigations.
- Reports to insurance carrier or State compensation agencies.
- Reports required by the client.
- Records and reports required by local, state, federal and/or international agencies.
- Property or equipment damage.
- Third party injury or damage claims.
- Environmental testing logs.
- Explosive and hazardous substances inventories and records.
- Records of inspections and citations.
- Safety training.

10.0 EMERGENCY RESPONSE TRAINING

All persons who enter the worksite, including visitors, shall receive a site-specific briefing about anticipated emergency situations and the emergency procedures by the SSHO. Where this site relies on off-site organizations for emergency response, the training of personnel in those off-site organizations has been evaluated and is deemed adequate for response to this site.

FIGURES

E:\CAD\Benchmark\South Buffalo Charter School\Remedial Investigation Work Plan\HASP\ERP\Figure 1 Hospital Route Map.dwg



BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0599

PROJECT NO.: 0249-012-003

DATE: APRIL 2012

DRAFTED BY: JGT

HOSPITAL ROUTE MAP

EMERGENCY RESPONSE PLAN

154 SOUTH OGDEN STREET SITE

BUFFALO, NEW YORK

PREPARED FOR

154 SOUTH OGDEN, LLC

FIGURE 1

APPENDIX B

HOT WORK PERMIT FORM

HOT WORK PERMIT

PART 1 - INFORMATION

Issue Date:

Date Work to be Performed: Start: Finish (permit terminated):

Performed By:

Work Area:

Object to be Worked On:

PART 2 - APPROVAL

(for 1, 2 or 3: mark Yes, No or NA)*

Will working be on or in: Finish (permit terminated):

1. Metal partition, wall, ceiling covered by combustible material?	yes	no
2. Pipes, in contact with combustible material?	yes	no
3. Explosive area?	yes	no

* = If any of these conditions exist (marked "yes"), a permit will not be issued without being reviewed and approved by Thomas H. Forbes (Corporate Health and Safety Director). Required Signature below.

PART 3 - REQUIRED CONDITIONS**

(Check all conditions that must be met)

	PROTECTIVE ACTION		PROTECTIVE EQUIPMENT
	Specific Risk Assessment Required		Goggles/visor/welding screen
	Fire or spark barrier		Apron/fireproof clothing
	Cover hot surfaces		Welding gloves/gauntlets/other:
	Move movable fire hazards, specifically		Wellintons/Knee pads
	Erect screen on barrier		Ear protection: Ear muffs/Ear plugs
	Restrict Access		B.A.: SCBA/Long Breather
	Wet the ground		Respirator: Type:
	Ensure adequate ventilation		Cartridge:
	Provide adequate supports		Local Exhaust Ventilation
	Cover exposed drain/floor or wall cracks		Extinguisher/Fire blanket
	Fire watch (must remain on duty during duration of permit)		Personal flammable gas monitor
	Issue additional permit(s):		

Other precautions:

** Permit will not be issued until these conditions are met.

SIGNATURES

Orginating Employee: Date:

Project Manager: Date:

Part 2 Approval: Date:

APPENDIX C

NYSDOH GENERIC COMMUNITY AIR MONITORING PLAN

Appendix 1A
New York State Department of Health
Generic Community Air Monitoring Plan

Overview

A Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated sites. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

The generic CAMP presented below will be sufficient to cover many, if not most, sites. Specific requirements should be reviewed for each situation in consultation with NYSDOH to ensure proper applicability. In some cases, a separate site-specific CAMP or supplement may be required. Depending upon the nature of contamination, chemical- specific monitoring with appropriately-sensitive methods may be required. Depending upon the proximity of potentially exposed individuals, more stringent monitoring or response levels than those presented below may be required. Special requirements will be necessary for work within 20 feet of potentially exposed individuals or structures and for indoor work with co-located residences or facilities. These requirements should be determined in consultation with NYSDOH.

Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

Community Air Monitoring Plan

Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for VOCs and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary. Most sites will involve VOC and particulate monitoring; sites known to be contaminated with heavy metals alone may only require particulate monitoring. If radiological contamination is a concern, additional monitoring requirements may be necessary per consultation with appropriate DEC/NYSDOH staff.

Continuous monitoring will be required for all ground intrusive activities and during the demolition of contaminated or potentially contaminated structures. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

Periodic monitoring for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. “Periodic” monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or

overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions, particularly if wind direction changes. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

1. If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.

2. If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

3. If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

4. All 15-minute readings must be recorded and be available for State (DEC and NYSDOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

1. If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m^3 above the upwind level and provided that no visible dust is migrating from the work area.

2. If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m^3 above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m^3 of the upwind level and in preventing visible dust migration.

3. All readings must be recorded and be available for State (DEC and NYSDOH) and County Health personnel to review.

December 2009

Appendix 1B
Fugitive Dust and Particulate Monitoring

A program for suppressing fugitive dust and particulate matter monitoring at hazardous waste sites is a responsibility on the remedial party performing the work. These procedures must be incorporated into appropriate intrusive work plans. The following fugitive dust suppression and particulate monitoring program should be employed at sites during construction and other intrusive activities which warrant its use:

1. Reasonable fugitive dust suppression techniques must be employed during all site activities which may generate fugitive dust.

2. Particulate monitoring must be employed during the handling of waste or contaminated soil or when activities on site may generate fugitive dust from exposed waste or contaminated soil. Remedial activities may also include the excavation, grading, or placement of clean fill. These control measures should not be considered necessary for these activities.

3. Particulate monitoring must be performed using real-time particulate monitors and shall monitor particulate matter less than ten microns (PM10) with the following minimum performance standards:

(a) Objects to be measured: Dust, mists or aerosols;
(b) Measurement Ranges: 0.001 to 400 mg/m3 (1 to 400,000 :ug/m3);
(c) Precision (2-sigma) at constant temperature: +/- 10 :g/m3 for one second averaging; and +/- 1.5 g/m3 for sixty second averaging;
(d) Accuracy: +/- 5% of reading +/- precision (Referred to gravimetric calibration with SAE fine test dust (mmd= 2 to 3 :m, g= 2.5, as aerosolized);
(e) Resolution: 0.1% of reading or 1g/m3, whichever is larger;
(f) Particle Size Range of Maximum Response: 0.1-10;
(g) Total Number of Data Points in Memory: 10,000;
(h) Logged Data: Each data point with average concentration, time/date and data point number
(i) Run Summary: overall average, maximum concentrations, time/date of maximum, total number of logged points, start time/date, total elapsed time (run duration), STEL concentration and time/date occurrence, averaging (logging) period, calibration factor, and tag number;
(j) Alarm Averaging Time (user selectable): real-time (1-60 seconds) or STEL (15 minutes), alarms required;
(k) Operating Time: 48 hours (fully charged NiCd battery); continuously with charger;
(l) Operating Temperature: -10 to 50^{o} C (14 to 122^{o} F);
(m) Particulate levels will be monitored upwind and immediately downwind at the working site and integrated over a period not to exceed 15 minutes.

4. In order to ensure the validity of the fugitive dust measurements performed, there must be appropriate Quality Assurance/Quality Control (QA/QC). It is the responsibility of the remedial party to adequately supplement QA/QC Plans to include the following critical features: periodic instrument calibration, operator training, daily instrument performance (span) checks, and a record keeping plan.

5. The action level will be established at 150 ug/m3 (15 minutes average). While conservative,

this short-term interval will provide a real-time assessment of on-site air quality to assure both health and safety. If particulate levels are detected in excess of 150 ug/m3, the upwind background level must be confirmed immediately. If the working site particulate measurement is greater than 100 ug/m3 above the background level, additional dust suppression techniques must be implemented to reduce the generation of fugitive dust and corrective action taken to protect site personnel and reduce the potential for contaminant migration. Corrective measures may include increasing the level of personal protection for on-site personnel and implementing additional dust suppression techniques (see paragraph 7). Should the action level of 150 ug/m3 continue to be exceeded work must stop and DER must be notified as provided in the site design or remedial work plan. The notification shall include a description of the control measures implemented to prevent further exceedances.

6. It must be recognized that the generation of dust from waste or contaminated soil that migrates off-site, has the potential for transporting contaminants off-site. There may be situations when dust is being generated and leaving the site and the monitoring equipment does not measure PM10 at or above the action level. Since this situation has the potential to allow for the migration of contaminants off-site, it is unacceptable. While it is not practical to quantify total suspended particulates on a real-time basis, it is appropriate to rely on visual observation. If dust is observed leaving the working site, additional dust suppression techniques must be employed. Activities that have a high dusting potential--such as solidification and treatment involving materials like kiln dust and lime--will require the need for special measures to be considered.

7. The following techniques have been shown to be effective for the controlling of the generation and migration of dust during construction activities:

(a) Applying water on haul roads;
(b) Wetting equipment and excavation faces;
(c) Spraying water on buckets during excavation and dumping;
(d) Hauling materials in properly tarped or watertight containers;
(e) Restricting vehicle speeds to 10 mph;
(f) Covering excavated areas and material after excavation activity ceases; and
(g) Reducing the excavation size and/or number of excavations.

Experience has shown that the chance of exceeding the 150ug/m3 action level is remote when the above-mentioned techniques are used. When techniques involving water application are used, care must be taken not to use excess water, which can result in unacceptably wet conditions. Using atomizing sprays will prevent overly wet conditions, conserve water, and provide an effective means of suppressing the fugitive dust.

8. The evaluation of weather conditions is necessary for proper fugitive dust control. When extreme wind conditions make dust control ineffective, as a last resort remedial actions may need to be suspended. There may be situations that require fugitive dust suppression and particulate monitoring requirements with action levels more stringent than those provided above. Under some circumstances, the contaminant concentration and/or toxicity may require additional monitoring to protect site personnel and the public. Additional integrated sampling and chemical analysis of the dust may also be in order. This must be evaluated when a health and safety plan is developed and when appropriate suppression and monitoring requirements are established for protection of health and the environment.

APPENDIX E

PROJECT FIELD FORMS

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

EQUIPMENT CALIBRATION LOG

PROJECT INFORMATION:

Project Name: Date:

Project No.:

Client: Instrument Source: ☐ BM ☐ Rental

METER TYPE	UNITS	TIME	MAKE/MODEL	SERIAL NUMBER	CAL. BY	STANDARD	POST CAL. READING	SETTINGS
☐ pH meter	units		Myron L Company Ultra Meter 6P	606987 ☐ 6212375 ☐		4.00 7.00 10.01		
☐ Turbidity meter	NTU		Hach 2100P Turbidimeter	06120C020523 ☐ 07110C026405 ☐		< 0.4 20 100 800		
☐ Sp. Cond. meter	uS mS		Myron L Company Ultra Meter 6P	606987 ☐ 6212375 ☐		_____ mS @ 25 °C		
☐ PID	ppm		MinRAE 2000			open air zero _____ ppm Iso. Gas		MIBK response factor = 1.0
☐ Dissolved Oxygen	ppm		HACH Model HQ30d			100% Satuartion		
☐ Particulate meter	mg/m^3					zero air		
☐ Oxygen	%					open air		
☐ Hydrogen sulfide	ppm					open air		
☐ Carbon monoxide	ppm					open air		
☐ LEL	%					open air		
☐ Radiation Meter	uR/H					background area		
☐								

ADDITIONAL REMARKS:

PREPARED BY: **DATE:**

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

DAILY LOG				
	DATE			
	NO.			
	SHEET		OF	

FIELD ACTIVITY DAILY LOG

PROJECT NAME:	PROJECT NO.
PROJECT LOCATION:	CLIENT:
FIELD ACTIVITY:	

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

TIME	DESCRIPTION

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS:

WEATHER CONDITIONS:	IMPORTANT TELEPHONE CALLS:
A.M.:	
P.M.:	

PERSONNEL ON SITE:	
SIGNATURE	DATE:

Project No: **Borehole Number:**

Project: ***A.K.A.:***

Client: ***Logged By:***

Site Location: ***Checked By:***

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

Benchmark Environmental Engineering & Science, PLLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716) 856-0599

SUBSURFACE PROFILE			SAMPLE						
Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Sample No.	SPT N-Value	Recovery (ft)	Symbol	PID VOCs ppm (0 – 50 – 100)	Lab Sample	Well Completion Details or Remarks
0.0	0.0 / 0.0	Ground Surface							
5.0									
10.0									
15.0									
20.0									

Drilled By: ***Hole Size:***

Drill Rig Type: ***Stick-up:***

Drill Method: ***Datum:***

Comments:

Drill Date(s): ***Sheet: 1 of 1***

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

GROUNDWATER FIELD FORM

Project Name: Date:

Location: Project No.: Field Team:

Well No.			Diameter (inches):			Sample Date / Time:			
Product Depth (fbTOR):			Water Column (ft):			DTW when sampled:			
DTW (static) (fbTOR):			One Well Volume (gal):			Purpose: ☐ Development ☐ Sample ☐ Purge & Sample			
Total Depth (fbTOR):			Total Volume Purged (gal):			Purge Method:			
Time	Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
	0 Initial								
	1								
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	9								
	10								
Sample Information:									
	S1								
	S2								

Well No.			Diameter (inches):			Sample Date / Time:			
Product Depth (fbTOR):			Water Column (ft):			DTW when sampled:			
DTW (static) (fbTOR):			One Well Volume (gal):			Purpose: ☐ Development ☐ Sample ☐ Purge & Sample			
Total Depth (fbTOR):			Total Volume Purged (gal):			Purge Method:			
Time	Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
	0 Initial								
	1								
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	9								
	10								
Sample Information:									
	S1								
	S2								

REMARKS:

Note: All water level measurements are in feet, distance from top of riser.

Volume Calculation

Diam.	Vol. (g/ft)
1"	0.041
2"	0.163
4"	0.653
6"	1.469

Stabilization Criteria

Parameter	Criteria
pH	± 0.1 unit
SC	± 3%
Turbidity	± 10%
DO	± 0.3 mg/L
ORP	± 10 mV

PREPARED BY:

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

INVESTIGATION DERIVED WASTE CONTAINER LOG

Project Name: Location:

Project Number: Personnel:

Container		Contents	Date		Staging Location	Date Sampled	Comments
Number	Description		Started	Ended			

Prepared By:

Signed:

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.:

Photo No.	Date	
Direction Photo Taken:		photo here
Description:		

Photo No.	Date	
Direction Photo Taken:		photo here
Description:		

Prepared By: _____

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

REAL TIME AIR MONITORING LOG

Date:

Project Name:

Project Number:

Project Location:

Client:

Purpose of Air Monitoring:

WEATHER CONDITIONS:

Time of Day:	A.M.	P.M.
Ambient Air Temp.:		
Wind Direction:		
Wind Speed:		
Precipitation:		

Date	Personnel	Time	Air Monitoring Meter Measurement (Units)							Location/Activity/Comments
			PID (ppm)	LEL (%)	H2S (ppm)	O2 (%)	CO (ppm)	Particulates (mg/m^3)	Other	

NOTE: SEE EQUIPMENT CALIBRATION LOG FOR DESCRIPTION OF EQUIPMENT TYPE.

Prepared By: Date:

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TAILGATE SAFETY MEETING FORM

Project Name: Date: Time:

Project Number: Client:

Work Activities:

HOSPITAL INFORMATION:

Name:

Address: *City:* *State:* *Zip:*

Phone No.: *Ambulance Phone No.*

SAFETY TOPICS PRESENTED:

Chemical Hazards:

Physical Hazards: Slips, Trips, Falls

PERSONAL PROTECTIVE EQUIPMENT:

Activity:	*PPE Level:*	A	B	C	D
Activity:	*PPE Level:*	A	B	C	D
Activity:	*PPE Level:*	A	B	C	D
Activity:	*PPE Level:*	A	B	C	D
Activity:	*PPE Level:*	A	B	C	D

New Equipment:

Other Safety Topic (s): Environmental Hazards (aggressive fauna)

Eating, drinking, use of tobacco products is prohibited in the Exclusion Zone (EZ)

ATTENDEES

Name Printed	Signatures

Meeting conducted by:

TEST PIT EXCAVATION LOG

Project No:	***Test Pit I.D.:***
Project:	***Logged By:***
Client:	***Checked By:***
Site Location:	

Benchmark Environmental Engineering & Science, PLLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716) 856-0599

SUBSURFACE PROFILE				PID VOCs (ppm)	Lab Sample	Remarks
Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Lithologic Symbol	0 25 50 75 100		
0.0	0.0 / 0.0	Ground Surface				
5.0						
10.0						
15.0						
20.0						

Excavated By:	***Length:***	***Depth to Water:***
Excavator Type:	***Width:***	***Visual Impacts:***
Excavation Date(s):	***Depth:***	***Olfactory Observations:***
Comments:		

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

DAILY LOG	DATE			
	REPORT NO.			
	PAGE		OF	

PROBLEM IDENTIFICATION REPORT

Date:

Project:

Job No:

Location:

CQA Monitor(s):

Client:

Contractor:

Contractor's Supervisor:

WEATHER CONDITIONS:

Ambient Air Temp. - A.M.:

Ambient Air Temp. - P.M.:

Wind Direction:

Wind Speed:

Precipitation:

Problem Description:

Problem Location (reference test location, sketch on back of form as appropriate):

Problem Causes:

Suggested Corrective Measures or Variances:

Linked to Corrective Measures Report No. *or Variance Log No.*

Approvals (initial):

CQA Engineer:

Project Manager:

Signed:

CQA Representative

BENCHMARK
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SCIENCE, PLLC

DAILY LOG	DATE			
	REPORT NO.			
	PAGE		OF	

CORRECTIVE MEASURES REPORT

Date:

Project:

Job No:

Location:

CQA Monitor(s):

Client:

Contractor:

Contractor's Supervisor:

WEATHER CONDITIONS:

Ambient Air Temp. - A.M.:

Ambient Air Temp. - P.M.:

Wind Direction:

Wind Speed:

Precipitation:

Corrective Measures Undertaken (reference Problem Identification Report No.)

Retesing Location:

Suggested Method of Minimizing Re-Occurrence:

Approvals (initial):

CQA Engineer:

Project Manager:

Signed:

CQA Representative

APPENDIX F

ELECTRONIC COPY OF WORK PLAN