Work Plan for Remedial Investigation/Interim Remedial Measures

8 St. Louis Place Site
Buffalo, New York

November 2019 0395-018-001

Prepared For:

Main St. Louis, L.P.



Prepared By:

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WORK PLAN
FOR
REMEDIAL INVESTIGATION/INTERIM REMEDIAL MEASURES

8 ST. LOUIS PLACE SITE
BUFFALO, NEW YORK

November 2019 0395-018-001

Prepared for:

MAIN ST. LOUIS, L.P.

Prepared by:

TurnKey Environmental Restoration, LLC

Benchmark Environmental Engineering & Science, PLLC

Certification

I, Thomas H. Forbes, certify that I am currently a NYS registered professional engineer and that this October 2019 Remedial Investigation / Interim Remedial Measures (RI/IRM) Work Plan for the 8 St. Louis Place Site was prepared in accordance with applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

_____

Date

RI/IRM WORK PLAN
8 St. Louis Place 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) and planned Interim Remedial Measures (IRM) at the 8 St. Louis Place Site located at 8 St. Louis Place in the City of Buffalo, New York (see Figures 1 and 2).

The Applicant, Main St. Louis, L.P. 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 submitted a BCP Application to the New York State Department of Environmental Conservation (NYSDEC) in conjunction with this work plan. The planned redevelopment is residential townhouses on the Site, which is currently used as a parking lot. The RI/IRM will be completed by TurnKey Environmental Restoration, LLC in association with Benchmark Environmental Engineering & Science, PLLC (collectively, TurnKey-Benchmark), on behalf of the Applicants. The work will be completed in accordance with NYSDEC DER-10 guidelines (Ref. 1).

1.1 Site Background

The Site consists of a 0.23-acre parcel addressed at 8 St. Louis Place, Buffalo, New York.

Based on historic records and previous studies, the Site was historically developed with former buildings including residences/apartments, private garages and/or out-buildings beginning in at least 1889. The Site has been used as a parking lot since approximately 1986. Previous environmental investigations completed at the Site have identified impacted fill materials across the Site with polycyclic aromatic hydrocarbons (PAHs) and metals at concentrations exceeding Parts 375 Restricted Residential Soil Cleanup Objectives (RRSCOs). [Based on the redevelopment plan, the least restrictive applicable SCOs to attain would be RRSCOs.] Details of the previous investigations are presented below in Section 2.6.

1.2 Project Objectives

For sites entering the BCP at the point of investigation, NYSDEC requires completion of the RI detailed in this Work Plan. However, due to the timing of the project schedule, an IRM component has been included in this Work Plan to excavate and remove the known contamination and additional contamination that may be encountered during the RI to achieve Part 375 Unrestricted Soil Cleanup Objectives (USCOs). The primary objectives of this RI/IRM are to:

- Collect additional on-Site media samples, under appropriate quality assurance/quality control criteria, to better delineate the nature and extent of contamination; and determine if contamination has the potential to migrate off-site;

- As part of the RI, soil samples will be analyzed for metals and PAHs (the primary constituents of concern) . These samples will be used for RI soil characterization as well as to determine the excavation limits and depths for the planned IRM;

- Determine if the concentrations of constituents of concern in soil, groundwater, and/or soil gas (beyond the known metals and PAHs in soil) pose potential unacceptable risks via on-site and off-site qualitative exposure assessment in accordance with DER-10 Appendix 3b; and,

- Provide the data needed to evaluate potential additional remedial measures beyond the planned IRM (if any) and determine appropriate actions to address potential significant risks.

As part of the RI/IRM, sampling data will be used to evaluate whether remedial alternatives can meet the cleanup objectives. The intended uses of these data dictate the confidence levels. Two data confidence levels will be employed in the RI: screening level data and definitive level data. In general, screening level confidence will apply to field measurements, including photoionization detector (PID) measurements, groundwater elevation measurements, and field analyses (i.e., pH, temperature, dissolved oxygen, specific conductivity, and turbidity). Definitive level confidence will apply to samples for chemical analysis.

The applicability of these levels of data are further specified in the Quality Assurance Project Plan (QAPP) in Section 5.0. Sampling and analytical acceptance and performance criteria such as precision, accuracy, representativeness, comparability, completeness, and sensitivity, are also defined in the QAPP.

An IRM will be completed to immediately address known environmental impacts at the Site and any additional impacts identified during the RI. The IRM will quickly mitigate risks to public health and the environment. Planned IRM activities include: excavation and off-Site disposal of metals- and PAH-impacted soil/fill. This Work Plan presents the scope of anticipated IRM activities based on current information and may be modified, subject to NYSDEC approval, immediately after the RI fieldwork is completed.

The Applicant's intent is for the planned IRM to achieve 6NYCRR Part 375 USCOs. The final remedial objectives for the Site will be presented in the Alternatives Analysis Report (AAR) based on the findings of the RI and confirmation sampling from the IRM(s).

Details of anticipated IRM activities are included in Section 4.0.

1.3 Project Organization and Responsibilities

The Applicant, Main St. Louis, L.P. has applied to the New York State BCP as a Volunteer, i.e., non-polluters, per ECL§27-1405. TurnKey-Benchmark will complete the RI, IRM, and manage the brownfield cleanup on behalf of the Applicant. TurnKey-Benchmark will also be responsible to verify and certify that the brownfield remedial action was completed in conformance with the approved work plans and NYSDEC DER-10 requirements. The NYSDEC Division of Environmental Remediation (Region 9), in consultation with the New York State Department of Health (NYSDOH) shall monitor the remedial investigation and remedial actions to be performed by TurnKey-Benchmark in accordance with the Brownfield Cleanup Agreement (BCA), the approved RI/IRM Work Plan, any subsequent work plans, and NYSDEC DER-10 guidance (May 2010).

TurnKey-Benchmark personnel as well as 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. TurnKey-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
Main St. Louis, L.P.	Applicant contact	Frank Chinnici	(716) 689-3300 ext. 203
TurnKey-Benchmark	Project Officer	Thomas H. Forbes, P.E.	(716) 856-0599
TurnKey-Benchmark	Project Manager	Michael Lesakowski	(716) 856-0599
TBD	Analytical Testing	TBD	TBD
TBD	Drilling Services	TBD	TBD
TBD	Excavation Services	TBD	TBD
Data Validation Services	DUSR	Judy Harry	(518) 251-4429

2.0 SITE DESCRIPTION

2.1 General

The Site is located in a highly developed residential and commercial area of the City of Buffalo, New York. The Site is currently an asphalt parking lot. The Site is bound by residences to the north and south, as well as residential and commercial operations to the east and west.

2.2 Site Topography and Drainage

The Site is generally level at grade. The surface of the Site is primarily covered in asphalt and to a lesser extent, green space. Precipitation (i.e., rain or melting snow) is likely to diverge off asphalt paved areas and infiltrate the ground surfaces on the perimeter of the Site. Shallow groundwater flow is likely to be affected by various cycles of development and filling, as well as utilities and foundation installation.

2.3 Geology and Hydrogeology

2.3.1 Overburden

According to the United States Department of Agriculture (USDA) Web soil survey, Site soils are characterized as Urban Land (Ud). Soils characterized as urban land (Ud) are mostly covered by asphalt, concrete, buildings, or other impervious structures, typical of an urban environment. The presence of overburden fill material is widespread and common throughout the City of Buffalo.

The Phase II investigation (further discussed in Section 2.6) identified the subsurface conditions across the Site as non-native fill material consisting primarily of black granular fill with ash and fragments of brick, asphalt, stone, and metal. Fill material was observed from the ground surface or below asphalt to approximately six feet below ground surface (fbgs) across the Site. Native soil was observed underlying the urban fill consisting of dry brown medium to coarse sand. The geology of the Site will be further 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. An intersecting, orthogonal pattern of fractures and joint sets are common throughout the bedrock strata. The surficial geomorphology of the bedrock strata was modified by sub-aerial erosion and continental glaciation.

2.3.3 Hydrogeology

The Site is located within the Lake Erie-Niagara River major drainage basin, which is typified by little topographic relief, except in the immediate vicinity of major drainage ways. 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 in a westerly direction towards Lake Erie. Local groundwater flows are likely influenced by subsurface features, such as utilities, and localized subgrade development conditions.

2.4 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).

Groundwater at the Site is assigned Class "GA" by 6NYCRR Part 701.15. Currently, there are no 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 to this area of the City.

2.5 Wetlands

There are no State or Federal wetlands or floodplains located on Site or adjacent to the Site.

2.6 Previous Investigations

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

2.6.1 April 2018 – Phase I Environmental Site Assessment

TurnKey completed a Phase I ESA of the Site in April 2018. Prior to being vacant land, the Site was developed with several former buildings including outbuildings, private automobile garages and residences/apartments beginning in at least 1889. The former outbuildings were demolished in the late 1800s, the former residences/apartments were demolished in approximately 1960, and a private automobile garage was demolished after 1986. During TurnKey's site reconnaissance, several depressions were noted on-Site indicating the possible settling of fill materials in former building areas. In addition, TurnKey also noted the presence of surface building debris such as brick, concrete, and clay tile during the site visit.

2.6.2 September 2019 – Site Work

During initial subsurface site work completed by the current property owner in September 2019, urban fill materials were identified across the Site. Site work ceased at the Site and TurnKey was contracted to further assess the nature of the fill material, as further detailed below:

2.6.3 September 2019 – Phase II Environmental Investigation Report

TurnKey oversaw six test pits (TP-1 through TP-6) completed across the Site using an excavator and documented the findings in a report dated September 23, 2019. Test pit locations are shown on Figure 3. Findings of TurnKey's Phase II are detailed below:

- Black granular fill material with ash and fragments of brick, asphalt, stone and metal was noted across the Site from the ground surface or below asphalt to approximately six fbgs.
- Analytical results indicate that fill materials are impacted by PAHs and metals (lead and mercury) across the Site with concentrations exceeding 6NYCRR Part 375 USCOs and RRSCOs. [Based on the redevelopment plan, the least restrictive applicable SCOs to attain would be RRSCOs.]

- No groundwater was encountered during the work. [Groundwater will be further assessed during RI activities.]

Previous environmental reports are provided electronically on an enclosed CD within Appendix B. Previous investigation locations and areas of concern are shown on Figure 3.

2.7 Primary Constituents of Potential Concern (COPCs)

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

- ***Soil:*** PAHs and metals (lead and mercury)

3.0 REMEDIAL INVESTIGATION SCOPE OF WORK

This RI is focused on defining the nature and extent of contamination on-Site and potential for off-site migration, identifying the sources of contamination, defining chemical constituent migration pathways, qualitatively assessing human health and ecological risks, and obtaining data of sufficient quantity and quality to perform an alternatives analysis report. Further, because the goal of this BCP cleanup is to achieve USCOs, investigation activities will also focus further on assessing the horizontal extent and depths of known impacted fill material present at the Site.

Field team personnel will collect environmental samples in accordance with the rationale and protocols described in the QAPP in Section 5. USEPA and NYSDEC-approved sample collection and handling techniques will be used. Soil and groundwater samples taken 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. 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 most current electronic data deliverables (EDD) protocols.

During intrusive RI activities, the Community Air Monitoring Plan (CAMP) will be followed. 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).

The investigation approach is described below. The proposed RI sample locations are presented on Figure 4 and the planned sampling and analytical program is identified on Table 1.

3.1 Preparation Activities

3.1.1 Utility Clearance

Prior to any intrusive activities, Dig Safely New York (Call 811) 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 excavation work at the Site. If underground utilities are present on the property and are anticipated to interfere with intrusive activities, the Applicant and the NYSDEC will be contacted to discuss mitigating measures.

3.2 RI Soil/Fill Investigation

A soil/fill investigation will be completed at the Site to assess the horizontal extent and vertical depth of known historical contamination. The soil/fill investigation will include surface soil sampling and the completion of subsurface test pits and soil borings to allow for characterization of surface and subsurface soil/fill material and sample collection. The proposed RI sample locations are presented on Figure 4 and the sampling and analytical program is presented on Table 1.

3.2.1 Surface Soil/Fill Investigation

Three surface soil/fill samples (SS-1 through SS-3) will be collected from the limited green areas on the northern and western portions of the Site. The samples will be collected from 0 to 2 inches below ground surface to allow for assessment of human exposure via incidental soil ingestion, inhalation of soil, or dermal contact with soil. The surface soil samples will be analyzed in accordance with the sampling and analysis plan (see Table 1). Specifically, the surface soil samples will be analyzed for Target Compound List (TCL) semi-volatile organic compounds (SVOCs) and Target Analyte List (TAL) metals. One location on the northern portion of the Site will also be analyzed for poly chlorinated biphenyls (PCBs), herbicides, pesticides, 1,4-dioxane, and per- and polyfluoroalkyl substances (PFAS). The remaining exterior areas are generally void of vegetation and soil in the upper two-inches. If elevated PID readings (i.e., sustained above ten parts per million, ppm) are noted during field screening, laboratory analysis may be expanded to include VOCs in consultation with the NYSDEC. The soil/fill samples will be analyzed in accordance with United States Environmental Protection Agency (USEPA) SW 846 methodology with equivalent Category B deliverables to allow for independent third-party data usability assessment.

3.2.2 Subsurface Soil/Fill Investigation

Eight supplemental subsurface soil/fill exploratory test pit locations, designated as TP-7 through TP-14 (test pit IDs continue in numerical order from TurnKey's 2019 Phase II activities) and three soil borings (MW-1 through MW-3) will be completed as part of the RI activities, as follows:

Test Pits

Eight TPs will be excavated across the Site to further delineate the extent of the known PAHs and metals contamination and to determine if other impacts requiring remediation are present at the Site. These TPs will be excavated up to six feet into native material and native soils will be sampled for PAHs and metals in the depth interval directly below the fill materials. These TPs and the soil data collected will allow refinement of the impacted soil/fill volumes that will be removed in their entirety as part of the planned IRM. Further, if there are no USCO exceedances, these samples will serve as both investigation and end-point confirmatory samples.

Fill from three of the eight TPs will be sampled for full suite analyses (i.e., Full List VOCs, TCL SVOCs, TAL Metals, PCBs, pesticides, herbicides, 1,4-dioxane and PFAS) to determine if other impacts beyond the known PAHs and metals are present at the Site.

Soil/fill samples retrieved from the test pits will be field screened for the presence of volatile organics using a calibrated PID with a 10.6 eV lamp to identify potential impacts in soil samples for laboratory analysis. Upon reaching the completion depth of each location, field visual/olfactory and PID results will be reviewed to determine the interval to be sampled. If either no impacts are identified, or the impacts are ubiquitous from grade to final depth, the soil/fill sample will be collected from the fill materials overlying native soil; fill material is present nominally 0-6 fbgs. If no fill materials are present, the sample will be collected from 0-1 fbgs. Further, if differentiable impacts are noted within a TP location during the investigation, additional sample interval(s) will be collected. The Department will be made aware of the differing impacts if/when they are encountered.

Soil Borings

Three soil borings, each converted into a monitoring well, will be completed across the Site in the approximate locations shown on Figure 4. The soil borings will be completed

with either a direct-push drill rig or a rotary drill rig capable of installing 2-inch inside diameter PVC monitoring wells. Each boring will be advanced to a target minimum of five (5) feet below the first encountered groundwater or a maximum depth of 25 fbgs.

Upon reaching the completion of each boring, TurnKey-Benchmark personnel will review PID readings and visual/olfactory observations within the native soil to determine if any soil warrants analytical testing. If no field evidence of impact exists in any of the three soil borings, the native soil immediately above the water table (assuming groundwater is encountered) at MW-1 through MW-3 will be analyzed for TCL SVOCs and TAL Metals. To verify USCOs at depth, a sample from the 15- to 16-foot interval at all three borings will be collected and analyzed for full suite analyses (i.e., Full List VOCs, TCL SVOCs, TAL metals, PCBs, pesticides, herbicides, 1,4-dioxane and PFAS).

Drill cuttings will be redeposited on-Site unless gross contamination (i.e., visible product) is encountered, in which case they will be placed in sealed New York State Department of Transportation (NYSDOT)-approved drums and labeled for subsequent characterization and disposal, if necessary.

3.2.3 Soil/Fill Sample Collection and Analysis

The analytical program detailed above is also summarized on Table 1. If RI soil samples identify additional contaminants of concern beyond the known PAHs and metals, TurnKey-Benchmark will collect additional end-point confirmatory samples either prior to or during IRM excavation(s) consistent with Section 4.5 of this work plan.

As an IRM is proposed to be completed as part of this work plan, waste characterization samples will also be collected for laboratory analysis and frequency consistent with landfill requirements; the disposal facility has yet to be determined. En-core samplers will be used to collect RI VOC soil samples as described in Method 5035. Remaining samples will be collected and placed into 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.

3.3 Groundwater Investigation

Three groundwater monitoring wells, identified as MW-1 through MW-3, will be advanced at the Site to assess groundwater quality data and flow direction. Proposed

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

The monitoring wells will be installed with a drill rig capable of installing 2-inch inside diameter PVC monitoring wells. Each well will be advanced to a target minimum of five feet below the first encountered groundwater or a maximum depth of 25 fbgs. All non-dedicated drilling tools and equipment will be decontaminated between boring locations using potable tap water and a phosphate-free detergent (e.g., Alconox).

Each well will be constructed with two-inch diameter Schedule (SCH) 40 PVC with a minimum five-foot flush joint SCH 40 PVC 0.010-inch machine-slotted well screen. Each well screen and attached riser will be placed at the bottom of each borehole and a silica sand filter pack (size #0) will be installed from the base of the well to a maximum of two (2)-feet above the top of the screen. A bentonite chip seal will then be installed and allowed to hydrate sufficiently to mitigate the potential for downhole grout contamination. The newly installed monitoring wells will be completed with keyed-alike locks, a lockable J-plug, and a steel flush-mounted or stick-up road box.

3.3.2 Well Development

After installation, but not within 24 hours, newly installed monitoring wells will be developed in accordance with TurnKey-Benchmark and NYSDEC protocols. 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, 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 (3) 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. However, if impacts are noted during development including odors, sheen, light non-aqueous phase liquid (LNAPL), dense non-aqueous phase liquid (DNAPL), well

development water will be containerized in NYSDOT-approved drums and labeled per monitoring well location. It will be determined, in consultation with the Department, if the containerized development water (if any) is acceptable for surface discharge or requires subsequent on-Site treatment and/or off-Site disposal.

3.3.3 Groundwater Sample Collection

Prior to sample collection, static water levels will be measured and recorded from the 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 field parameters 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**

  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**

  If low flow is not feasible (e.g., due to depth to groundwater), 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, dissolved oxygen, 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-approved laboratory for analysis.

3.3.4 Groundwater Sample Analyses

The three groundwater wells will be sampled for Full List VOCs. Two wells will be selected, based on the RI groundwater gauging, for further analysis of an expanded list of parameters including 1,4-dioxane, PFAS, TCL SVOCs, TAL metals, PCBs, pesticides, and herbicides. At this time the expanded list is targeted for MW-2 and MW-3 on the assumption that groundwater flows in a westerly direction; however, well gauging and isopotential map development will precede the sampling and will be provided to the NYSDEC for concurrence on the wells selected for expanded parameter sampling. Samples collected for 1,4-dioxane will be analyzed by the laboratory via EPA Method 8270 Selective Ion Monitoring (SIM) mode and for the laboratory will analyze for PFAS via a modified EPA Method 537 to achieve reporting limits of 2 nanograms per liter (ng/l).

Groundwater samples will be collected and analyzed in accordance with USEPA SW 846 methodology with equivalent NYSDEC Category B deliverables to allow for independent third-party data usability assessment.

3.4 Field Specific Quality Assurance/Quality Control Sampling

In addition to the 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 5.0) 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, and trip blanks.

3.5 Decontamination and 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 TurnKey-Benchmark's field operating procedures presented in Appendix E. 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 by the subcontractor, as necessary.

RI generated drilling spoils, groundwater, decontamination rinse water, or other Investigative-Derived Waste (IDW) 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). Purge water and decontamination rinse water that is not grossly contaminated may be discharged onto the ground surface if it infiltrates into the ground near the well where is was generated. IDW 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.

3.6 Site Mapping

A Site map will be developed during the field investigation. Sample points and relevant Site features will be located on the map. TurnKey-Benchmark will employ a handheld GPS unit to identify the locations of soil borings and monitoring wells relative to State planar grid coordinates. Monitoring well elevations will be measured by TurnKey-Benchmark's surveyor. An isopotential map showing the general direction of groundwater flow will be prepared based on water level measurements relative to USGS vertical datum. Maps will be provided with the RI report.

3.7 Documentation

Remedial Investigation and IRM 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. 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: date and time of all entries, names of 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. Progress photographs from a set location will be collected to document development activities and intrusive construction activities. Field personnel will, at a minimum, complete the following standard field forms (see Appendix C):

- Chain of Custody Form (per selected laboratory)
- Equipment Calibration Log
- Field Activity Daily Log (FADLs)
- Field Borehole/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

4.0 INTERIM REMEDIAL MEASURE (IRM)

An IRM will be completed following RI fieldwork to address known environmental concerns previously identified (PAHs and metals-impacted soil) to expedite remedial activities and overall project schedule. The planned IRM will remove PAHs- and metals-impacted soil/fill present at the Site with the objective to achieve USCOs.

This Work Plan includes planned IRM activities based on current information and may be modified, subject to NYSDEC approval, after the RI fieldwork is completed. The planned IRM includes the following tasks (see Figure 5):

- Clearing and grubbing of on-site vegetation, shrubs and trees (where needed on the perimeter of the Site);
- Removal and landfill disposal of PAHs- and metals-impacted soil/fill;
- Management and treatment of accumulated site water.

Based on previous investigations, the depth of PAHs- and metals-impacted soil/fill, which generally correlates with the depth of fill material on-Site, ranged from approximately 0 to 6 fbgs; it is estimated that approximately 2,500 cubic yards or 4,300 tons of PAHs- and metals-impacted soil may need to be removed during the IRM. This estimated volume will be further refined upon collection of RI data and based on actual field conditions encountered during the IRM.

If successful at achieving USCOs for all site contaminants across the entire Site, the planned IRM may be determined by the Department to constitute the final remedy for the Site. In which case, we do not anticipate the need for an environmental easement or post-remedial requirements as the objective is to achieve a Track 1 Unrestricted cleanup. The final remedy for the Site will be recommended in the Alternatives Analysis Report (AAR) and selection in the Department's Decision Document for the Site.

4.1 Pre-Construction Activities

Prior to implementation of the IRM, vegetation, shrubs and trees will be grubbed and cleared from the Site. Vegetation will be transported off-site for disposal or reuse.

A Master Erosion Control Plan (MECP) has been prepared and incorporated as Appendix F to this Work Plan. This MECP includes provisions for silt fencing, hay bailing, mulching, and other measures, as warranted.

4.2 Utility Clearance

Prior to any intrusive activities, Dig Safely New York (Call 811) 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 excavation work at the Site. If underground utilities are present on the property and are anticipated to interfere with intrusive activities, the Applicants and the NYSDEC will be contacted to discuss mitigating measures. The location of identified subgrade utilities will be recorded and included on base drawings as part of the RI-IRM-AA Report.

4.3 Waste Characterization

Waste characterization samples will be collected during the RI fieldwork. Laboratory analysis, number of samples analyzed, etc. will be consistent with the requirements of the disposal facility (to be determined).

Pre-characterization of the soil/fill will allow for direct loading and off-site transportation at the time of the impacted soil/fill excavation. Based on the results of the waste characterization sampling, impacted soil will be managed according to all federal, state and local waste disposal regulations.

4.4 Removal of Impacted Soil/Fill

During the IRM, all of the PAH- and metals-impacted soil/fill present at the Site will be excavated and removed for proper landfill disposal.

Prior to off-site disposal, waste characterization samples will be reviewed by TurnKey-Benchmark and provided to the Department. Although not anticipated, should any of the waste characterization samples indicate the presence of characteristically hazardous soil/fill that may require either disposal at a hazardous waste disposal facility, or treatment to render the soil/fill non-hazardous prior to disposal, TurnKey-Benchmark will provide an

addendum to this work plan that describes the methods for soil/fill handling, treatment and disposal of such soil/fill prior to excavation and off-site disposal.

Remedial excavation work will be directed by an experienced TurnKey-Benchmark professional to remove impacted soil/fill material. Visual observations along with end point confirmatory samples from the RI will be used to screen soil/fill materials and assist in verifying removal of impacted soil/fill. Vertical and lateral excavation will continue, as described above, until the impacted soil/fill is removed and Part 375 USCOs are achieved. The lateral extents of the remedial excavation will be limited to the boundaries of the BCP Site.

4.5 Excavation Confirmation Sampling

14 samples are planned within the native soil beneath the soil/fill layer that contains the elevated PAHs and metals during the RI; assuming USCOs are reached at each sample within the native soil, these samples will serve as excavation bottom end point confirmatory samples. If any of those 14 RI samples exceed the USCOs or if other contaminants of concern are identified in soil/fill during the RI, additional post-excavation bottom confirmatory samples will be collected from the excavated areas where USCO exceedance(s) were observed during the RI in the native soil. Post-excavation confirmatory sample locations from the excavated areas will include samples from excavation bottom (if needed as discussed above) and all sidewalls in general accordance with DER-10. Specifically, a minimum of one wall sample per 30 linear feet of sidewall and one bottom sample per 900 square feet of bottom area. End point confirmatory samples from the excavations will be analyzed for a minimum of TCL SVOCs and TAL metals, in accordance with USEPA Methodology with an equivalent Category B deliverables package to facilitate data evaluation by a third-party validation expert. Expedited turnaround times may be requested for the analytical results from any additional bottom samples to minimize the time that the excavation(s) remains open. Additional analytical parameters may be analyzed from post-excavation confirmatory samples, based on the results of the RI and consultation with the Department.

4.6 Groundwater Management

Water present within excavations and any rainwater that may run-in to excavations during the impacted soil/fill removal will be handled on-site prior to discharge to the municipal sewer. In general, water removed from excavations will be stored/settled in a portable storage tank(s), and if deemed necessary, will be pumped and treated prior to discharge to the municipal sewer or ground surface. TurnKey-Benchmark or the Applicants will coordinate with the City of Buffalo to obtain any necessary temporary sewer discharge permits. If a municipal sewer discharge location is not accessible, TurnKey-Benchmark will sample and discharge water in accordance with NYSDEC regulations.

Following completion of excavation work, settled solids remaining in the tank and any spent treatment materials will be disposed of off-site at a permitted disposal facility in accordance with applicable federal and state regulations. The storage tank will be decontaminated via pressure washing.

4.7 Excavation Backfill

Following NYSDEC concurrence that the remedial excavation is complete, the excavation will be backfilled with approved backfill material in accordance with DER-10 requirements. If post-excavation bottom sampling confirms that native soil concentrations are below USCOs, no demarcation layer will be placed along the excavation bottom.

Backfill material may consist of the following materials:

- Gravel, rock, or stone, consisting of virgin material, from a permitted mine or quarry may be imported, without chemical testing, if it contains less than 10% by weight material which would pass through a size 80 sieve and is approved by NYSDEC.
- Recycled concrete or brick from a NYSDEC-registered construction and demolition debris processing facility may be imported, without chemical testing, if the material conforms to the requirements of Section 304 of the New York State Department of Transportation Standard Specifications Construction and Materials Volume 1 (2002) and contains less than 10% by weight material which would pass through a size 80 sieve and is approved by NYSDEC.
- Imported soil/fill originating from known off-site sources having no evidence of disposal or releases of hazardous substances, hazardous, toxic or radioactive wastes, or petroleum that meets the chemical criteria of Table 2. No off-site

materials meeting the definition of a solid waste as defined in 6NYCRR, Part 360-1.2(a) shall be used as backfill.

Imported soil/fill material will be subject to characterization requirements in accordance with DER-10 Table 5.4(e)10, or as otherwise approved by NYSDEC prior to import to the Site. Characterization testing will be performed by an independent, NYSDOH ELAP-approved laboratory. An equivalent Category B deliverables package will be furnished with the data to allow data evaluation and preparation of a Data Usability Summary Report by an independent, third party data validation expert. QA samples will be collected to support the data evaluation. The QA samples will include a minimum of one matrix spike, one matrix spike duplicate, and one blind duplicate per 20 verification samples.

4.8 Off-Site Source Backfill Characterization Requirements

Backfill being imported to the Site, which is not deemed exempt from chemical testing will be subject to the characterization requirements in accordance with DER-10 Table 5.4(e)10 included below. Characterization testing will be performed by an independent, NYSDOH ELAP-approved laboratory. An equivalent Category B deliverables package will be furnished with the data to allow data evaluation and preparation of a DUSR by an independent, third-party data validation expert.

<table>
<tr><th colspan="4">Required Minimum Number of Samples for Soil Imported to a Site</th></tr>
<tr><th rowspan="2">Soil Quantity (CY)</th><th>VOCs</th><th colspan="2">SVOCs, Inorganics, PCBs/Pesticides, 1,4-dioxane and PFAS</th></tr>
<tr><th>Discrete Samples</th><th>Composite</th><th>Grab/Composite Samples</th></tr>
<tr><td>0-50</td><td>1</td><td>1</td><td rowspan="8">3-5 grab samples from different locations in the fill being provided will comprise a composite sample for analysis.</td></tr>
<tr><td>50-100</td><td>2</td><td>1</td></tr>
<tr><td>100-200</td><td>3</td><td>1</td></tr>
<tr><td>200-300</td><td>4</td><td>1</td></tr>
<tr><td>300-400</td><td>4</td><td>2</td></tr>
<tr><td>400-500</td><td>5</td><td>2</td></tr>
<tr><td>500-800</td><td>6</td><td>2</td></tr>
<tr><td>800-1,000</td><td>7</td><td>2</td></tr>
<tr><td>>1,000</td><td colspan="3">Add an additional 2 VOC and 1 composite for each additional 1,000 CY or consult with DER</td></tr>
</table>

5.0 QUALITY ASSURANCE PROJECT PLAN

A Quality Assurance Project Plan (QAPP) has been prepared in support of the RI/IRM activities. The QAPP dictates implementation of the investigation tasks delineated in this Work Plan. A Sampling and Analysis Plan (SAP) identifying methods for sample collection, decontamination, handling, and shipping, is provided as 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 (Ref. 3); the EPA Region II CERCLA Quality Assurance Manual (Ref. 4), and NYSDEC's DER-10 Technical Guidance for Site Investigation and Remediation (May 2010).

5.1 Scope of the QAPP

This QAPP was prepared to provide quality assurance (QA) guidelines to be implemented during the RI/IRM 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.

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.

5.2 QAPP Organization and Responsibility

The principal organizations involved in verifying achievement of data collection goals for the 8 St. Louis Place Site include: the NYSDEC, NYSDOH, Main St. Louis, L.P. (Volunteers), Benchmark Environmental Engineering and Science, PLLC and TurnKey Environmental Restoration, LLC (Volunteers' Consultants), 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.

5.2.1 NYSDEC and NYSDOH

It is the responsibility of the NYSDEC, in conjunction with the NYSDOH, to review this RI/IRM Work Plan and supporting documents, for completeness and conformance with the site-specific cleanup objectives and to decide 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.

5.2.2 Volunteers

Main St. Louis, L.P. 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 Applicants 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.

5.2.3 Environmental Consultant

TurnKey-Benchmark are the prime engineering and scientific consultants, respectively, on this project and are responsible for the implementation of the RI/IRM 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.

- *Project Officer (PO):* *Thomas H. Forbes, P.E.*

  The PO has the responsibility for ensuring conformance with the BCP program requirements. The PO will report directly to the Applicants and the NYSDEC/NYSDOH Project Managers and is responsible for project oversight. The PO will:

  - Define project objectives and develop a detailed work plan schedule.
  - Acquire and apply technical and corporate resources as needed to assure performance within budget and schedule constraints.
  - Review the work performed on the project to assure its quality, responsiveness, and timeliness.
  - Certify deliverables before their submission to NYSDEC.

- *Senior Project Manager (PM):* *Michael A. Lesakowski*

  The 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 Managers 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.
  - 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 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.

- *FTL/SSHO:* *Bryan W. Mayback/Nick Suraci*

  The Field Team Leader (FTL) has the responsibility for implementation of specific project tasks identified at the Site, 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.

5.3 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 TurnKey-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.

- *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.

5.4 Field Responsibilities

TurnKey-Benchmark field staff for this project is drawn from a pool of qualified personnel. 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 will

be experienced professionals who possess the degree of specialization and technical competence required to effectively and efficiently perform the required work.

5.5 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 laboratory under EPA analytical methods.

5.6 Level of QC Effort for Sample Parameters

Field 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.

- Field 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. Field (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.

- Duplicate samples are analyzed to check for sampling and analytical reproducibility.

- 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 (see Table 1).

The general level of QC effort will be one field (blind) duplicate and one field 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. PFAs sampling will include an equipment blank and a trip blank sample to ensure the reliability of the generated data.

5.7 Sampling and Analysis Plan

Methods and protocol to be used to collect environmental samples (i.e., soil and groundwater) for this investigation are described in the TurnKey-Benchmark Field Operating Procedures (FOPs) provided electronically in Appendix E.

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 3. The sampling program and related site activities are discussed below. To the extent allowed by existing physical conditions at the facility, sample collection efforts will adhere to the specific methods presented herein. If alternative sampling locations or procedures are implemented in response to facility 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.

5.7.1 Custody Procedures

Sample custody is controlled and maintained through the chain-of-custody (COC) 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. A sample is considered to be in a person's custody if it is in the person's possession or it is in the person's view after being in his or her possession or it was in that person's possession and that person has locked it in a vehicle or room. Sample containers will be cleaned and preserved at the laboratory before shipment to the Site. The following section and FOPs for Sampling, Labeling, Storage, and Shipment, located in Appendix E, describe procedures for maintaining sample custody from the time samples are collected to the time they are received by the analytical laboratory.

5.7.2 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.

5.7.3 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, 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, 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.

5.7.4 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).

5.7.5 Split Sampling

The Department may split any soil or groundwater samples at the Department's expense, during this RI/IRM. TurnKey-Benchmark personnel will cooperate with the Department to facilitate split sampling, as requested.

5.8 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.

5.8.1 Field Instrument Calibration

Quantitative field data to be obtained during groundwater sampling include pH, turbidity, specific conductance, temperature, and depth to groundwater. Quantitative water level measurements will be obtained with an electronic sounder or steel tape, which require no calibration. Quantitative field data to be obtained during soil sampling include screening for the presence of volatile organic constituents using a PID.

FOPs located in Appendix E 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 and in the Project Field Book.

5.9 Analytical Procedures

Samples collected during this investigation field sampling activities will be analyzed by a NYSDOH-approved laboratory.

5.9.1 Field Analytical Procedures

Field procedures for collecting and preserving groundwater and soil samples are described in FOPs located in Appendix E.

5.10 Data Usability Evaluation

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

5.10.1 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 E. 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.

5.10.2 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* (Ref. 5), and Contract Laboratory Program*, National Functional Guidelines for Inorganic Data Review* (Ref. 6). 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.

6.0 INVESTIGATION SUPPORT DOCUMENTS

6.1 Health and Safety Protocols

TurnKey-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 and IRM. 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.

6.1.1 Community Air Monitoring

Real-time community air monitoring will be performed during the RI and IRM activities at the Site. A CAMP is included within TurnKey-Benchmark's HASP (see HASP Appendix D). Particulate and VOC monitoring will be performed along the downwind perimeter of the work area during RI test pitting, RI boring, IRM excavation, and soil/fill handling activities in accordance with this plan. The CAMP is consistent with the

requirements for community air monitoring at remediation sites as established by the 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).

6.2 Citizen Participation Activities

NYSDEC will coordinate and lead community relations throughout the course of the project. TurnKey-Benchmark will support NYSDEC's community relations activities, as necessary. A Citizen Participation Plan will be prepared by TurnKey and submitted to NYSDEC under separate cover. 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.

7.0 REPORTING AND SCHEDULE

Upon completion of the RI and IRM fieldwork, a comprehensive RI/IRM/AAR will be completed summarizing the RI and IRM tasks completed, as described below.

7.1 Remedial Investigation Reporting

The RI section of the RI/IRM/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;
- The collection of geospatial data and presentation of investigation drawings detailing the investigation locations, potential areas of concern, presence of buildings, and subgrade utilities.
- 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 investigations, considered by TurnKey-Benchmark to be of useable quality, including geochemical data, field measurements, validated analytical results, etc.;
- Comparative criteria that may be used to calculate cleanup levels during the AA process, such as NYSDEC's USCOs, NYSDEC's GWQS, and other pertinent regulatory standards or criteria;
- 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 on-site and off-site qualitative human health and environmental exposure assessment completed in accordance with DER-10; and
- Supporting materials for RI data. These will include boring logs, monitoring well construction diagrams, laboratory analytical reports, and similar information.
- Data generated for the Site will be reported to NYSDEC electronically via EQuIS software where it will be stored in NYSDEC's Environmental Management System (EIMS).

In addition, TurnKey-Benchmark will require third-party analytical data review by a qualified, independent data validation expert for the RI and historic investigation data. 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 report.

7.2 IRM Reporting

A TurnKey-Benchmark environmental professional will be on-site to document IRM activities. Such documentation will include, at minimum, daily reports of IRM activities, community air monitoring results, photographs and corrective measures report, if necessary.

A summary of the IRM activities will be included in the RI/IRM/AA report submitted to the NYSDEC, with full details and support documents of the IRM activities included in the Final Engineering Report. At a minimum, the IRM section of the report will include:

- A Site or area planimetric map showing the parcel(s) remediated;
- A map showing the lateral limits of excavation;
- Summaries of unit quantities, including: volume of soil/fill excavated; disposition of excavated soil/fill and collected ground/surface water; volume/type/source of backfill; and volume of ground/surface water pumped and treated;
- Planimetric map showing location of all verification and other sampling locations with sample identification labels/codes;
- Tabular comparison of verification and other sample analytical results to SCOs. An explanation shall be provided for all results exceeding acceptance criteria; and
- Text describing that the excavation activities were performed in accordance with this Work Plan.

7.3 Alternatives Analysis (AA)

An AA is typically developed to provide a forum for evaluating and selecting a recommended remedial approach, in accordance with DER-10. However, the planned IRM should effectively remove all soils containing contaminants in excess of USCOs from the Site. If additional contamination is discovered during RI site characterization activities that is not sufficiently addressed by the IRM, the AAR may need to evaluate additional remedial measures beyond the IRM activities. If the IRM effectively removes all actionable site-related contaminants, the AAR will evaluate the IRM as the final remedy, in which case a list of remedial action objectives will be developed based on findings of the RI and IRM and the requirement for the selected remedial measures to be protective of human health and the environment under the proposed future use scenario. Proposed SCOs for the Site for the contaminants not addressed by the IRM will also be presented based on the proposed future use of the Site. After that, 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 375-1.8(f) and DER-10-4.2:

- 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 Effectiveness
- Land Use

In addition, the criteria of community acceptance will be considered based on public comments on the RI/IRM/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.

8.0 PROJECT SCHEDULE

A tentative project schedule for the major tasks to be performed in support of the RI/IRM/AAR is presented as Figure 6.

9.0 REFERENCES

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

2. United States Department of Agriculture (USDA), Soil Conservation Service. *Soil Survey of Erie County, New York.* December 1986.

3. U.S. Environmental Protection Agency. *Requirements for Quality Assurance Project Plans for Environmental Data Operations (EPA QA/R-5).* October 1998.

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

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

6. U.S. Environmental Protection Agency. National Functional Guidelines for Inorganic Data Review (EPA-540/R-94-013), 1994b.

7. TurnKey, Phase I Environmental Site Assessment, *8 St. Louis Place Site, Buffalo, New York.* April 2018

8. TurnKey, Phase II Environmental Investigation, *8 St. Louis Place Site, Buffalo, New York.* September 23, 2019.

TABLES

TABLE 1

SUMMARY OF SAMPLING AND ANALYTICAL PROGRAM

8 ST. LOUIS PLACE SITE

BUFFALO, NEW YORK

Matrix	Investigation Location		Full List VOCs[1]	TCL SVOCs [2]	TAL Metals	PCBs	Pesticides	Herbicides	1,4-Dioxane[2,3]	PFAS[3]
Surface Soil	SS-1	Surface Soil / Fill		1	1	1	1	1	1	1
	SS-2			1	1					
	SS-3			1	1					
TOTAL SURFACE SOIL SAMPLES: (excluding QA/QC)			**None Anticipated**	**3**	**3**	**1**	**1**	**1**	**1**	**1**
Subsurface Soil/Fill	TP-7	Subsurface Fill	1	1	1	1	1	1	1	1
		Subsurface Native Soil		1	1					
	TP-8	Subsurface Native Soil		1	1					
	TP-9	Subsurface Native Soil		1	1					
	TP-10	Subsurface Native Soil		1	1					
	TP-11	Subsurface Fill	1	1	1	1	1	1	1	1
		Subsurface Native Soil		1	1					
	TP-12	Subsurface Native Soil		1	1					
	TP-13	Subsurface Native Soil		1	1					
	TP-14	Subsurface Fill	1	1	1	1	1	1	1	1
		Subsurface Native Soil		1	1					
	MW-1	Subsurface Native Soil (Water Table)		1	1					
		Subsurface Native Soil (15-16')	1	1	1	1	1	1	1	1
	MW-2	Subsurface Native Soil (Water Table)		1	1					
		Subsurface Native Soil (15-16')	1	1	1	1	1	1	1	1
	MW-3	Subsurface Native Soil (Water Table)		1	1					
		Subsurface Native Soil (15-16')	1	1	1	1	1	1	1	1
QA/QC	Soil	MS	1	1	1	1	1	1	1	1
		MSD	1	1	1	1	1	1	1	1
		Blind Dup	1	1	1	1	1	1	1	1
TOTAL SUBSURFACE SOIL SAMPLES: (excluding QA/QC)			**6**	**17**	**17**	**6**	**6**	**6**	**6**	**6**
Groundwater[4,5]	MW-1	Groundwater	1							
	MW-2		1	1	1	1	1	1	1	1
	MW-3		1	1	1	1	1	1	1	1
QA/QC	Groundwater	MS	1	1	1	1	1	1	1	1
		MSD	1	1	1	1	1	1	1	1
		Blind Dup	1	1	1	1	1	1	1	1
		Trip Blank	1	--	--	--	--	--	--	1
		Equipment Blank	--	1	--	--	--	--	--	1
TOTAL GROUNDWATER SAMPLES: (excluding QA/QC)			**3**	**2**	**2**	**2**	**2**	**2**	**2**	**2**

Notes:

1. Full List VOCs = TCL plus CP-51 List VOCs via Method 8260. Additional soil/fill samples will be collected for VOC analysis at investigation locations if elevated PID readings are detected in the field.
2. 1,4-Dioxane will be analyzed in soil and groundwater samples; soil samples to be analyzed using EPA Method 8270 and groundwater samples to be analyzed using EPA Method 8270 SIM per NYSDEC guidelines.
3. PFAs (EPA Method 537) and 1,4-dioxane (EPA Method 8270 SIM) to be analyzed in one up-gradient well and one down-gradient well.
4. GW field parameters including: pH, specific conductance, temperature, DO, ORP, and turbidity will be collected and recorded.
5. Full suite on specified wells on assumption that groundwater flows in a westerly direction. Emerging contaminant likely follows a similar suite; however, groundwater flow direction will be verified as part of RI activities.

Acronyms:

VOCs = Volatile Organic Compounds
PFAS = Perfluoroalkyl Acids
SVOCs = Semi-Volatile Organic Compounds
TCL = Target Compound List
TAL = Target Analyte List
PCBs = Polychlorinated Biphenyls

TABLE 2

CRITERIA FOR IMPORTED SOILS

8 St. Louis Place Site
Buffalo, New York

Parameter	Soil Criteria[1]
Volatile Organic Compounds (mg/kg)	
1,1,1-Trichloroethane	0.68
1,1-Dichloroethane	0.27
1,1-Dichloroethene	0.33
1,2-Dichlorobenzene	1.1
1,2-Dichloroethane	0.02
1,2-Dichloroethene(cis)	0.25
1,2-Dichloroethene(trans)	0.19
1,3-Dichlorobenzene	2.4
1,4-Dichlorobenzene	1.8
Acetone	0.05
Benzene	0.06
Butylbenzene	12
Carbon tetrachloride	0.76
Chlorobenzene	1.1
Chloroform	0.37
Ethylbenzene	1
Hexachlorobenzene	0.33
Methyl ethyl ketone	0.12
Methyl tert-butyl ether	0.93
Methylene chloride	0.05
Propylbenzene-n	3.9
Sec-Butylbenzene	11
Tert-Butylbenzene	5.9
Tetrachloroethene	1.3
Toluene	0.7
Trichloroethene	0.47
Trimethylbenzene-1,2,4	3.6
Trimethylbenzene-1,3,5	8.4
Vinyl chloride	0.02
Xylene (mixed)	0.26
Semi-Volatile Organic Compounds (mg/kg)	
Acenaphthene	20
Acenaphthylene	100
Anthracene	100
Benzo(a)anthracene	1
Benzo(a)pyrene	1
Benzo(b)fluoranthene	1
Benzo(g,h,i)perylene	100
Benzo(k)fluoranthene	0.8
Chrysene	1
Dibenz(a,h)anthracene	0.33
Fluoranthene	100
Fluorene	30
Indeno(1,2,3-cd)pyrene	0.5
m-Cresol(s)	0.33
Naphthalene	12
o-Cresol(s)	0.33
p-Cresol(s)	0.33
Pentachlorophenol	0.8
Phenanthrene	100
Phenol	0.33
1,4-Dioxane	0.1
Pyrene	100

TABLE 2

CRITERIA FOR IMPORTED SOILS

8 St. Louis Place Site
Buffalo, New York

Parameter	Soil Criteria[1]
Metals (mg/kg)	
Arsenic	13
Barium	350
Beryllium	7.2
Cadmium	2.5
Chromium, Hexavalent[2]	1
Chromium, Trivalent[2]	30
Copper	50
Cyanide	27
Lead	63
Manganese	1600
Mercury (total)	0.18
Nickel	30
Selenium	3.9
Silver	2
Zinc	109
PCBs/Pesticides (mg/kg)	
2,4,5-TP Acid (Silvex)	3.8
4,4'-DDE	0.0033
4,4'-DDT	0.0033
4,4'-DDD	0.0033
Aldrin	0.005
Alpha-BHC	0.02
Beta-BHC	0.036
Chlordane (alpha)	0.094
Delta-BHC	0.04
Dibenzofuran	7
Dieldrin	0.005
Endosulfan I	2.4
Endosulfan II	2.4
Endosulfan sulfate	2.4
Endrin	0.014
Heptachlor	0.042
Lindane	0.1
Polychlorinated biphenyls	0.1

Notes:

1. Soil criteria used are Unrestricted Use Soil Cleanup Objectives per 6 NYCRR 375-6.8(b).
2. The SCO for Hexavalent or Trivalent Chromium is considered to be met if the analysis for the total species of this contaminant is below the specific SCO for Hexavalent Chromium.

TABLE 3

SAMPLE CONTAINER, VOLUME, PRESERVATION & HOLDING TIME REQUIREMENTS

8 ST. LOUIS PLACE 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	TCL + CP-51 VOCs	8260B	EnCore/WMG	5 gm / 4 oz.	Cool to 2-4 °C, Zero Headspace	48 - hours / 14 days
	TCL SVOCs	8270C	WMG	16 oz.	Cool to 2-4 °C	14 days extrac./40 days
	TAL Metals [2]	6010	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
	PFAS	modified 537	HDPE/Polypropylene	4-8 oz.	Cool to 2-4 °C	14 days extrac./40 days
Groundwater	TCL + CP-51 VOCs	8260B	glass vial	3 - 4 oz.	HCl to pH<2, Zero Headspace, Cool to 2-4 °C	14 days
	TCL SVOCs	8270C	amber glass	1000 ml	Cool to 2-4 °C	7 days extrac/40 days
	TAL Metals [2]	6010	plastic	600 ml	HNO_3 to pH<2, Cool to 2-4 °C	6 months/Hg 28 days
	Pesticides	8081B	amber glass	1000 ml	Cool to 2-4 °C	14 days extrac./40 days
	Herbicides	8151A	amber glass	1000 ml	Cool to 2-4 °C	14 days extrac./40 days
	PCBs	8082	amber glass	1000 ml	Cool to 2-4 °C	7 days extrac/40 days
	PFAS	modified 537	HDPE/Polypropylene	2 - 500 mL	Trizma, Cool to 2-4 °C	14 days
	1,4-dioxane	8270 SIM mode	amber glass	2 - 500 mL	Cool to 2-4 °C	7 days extrac./40 days

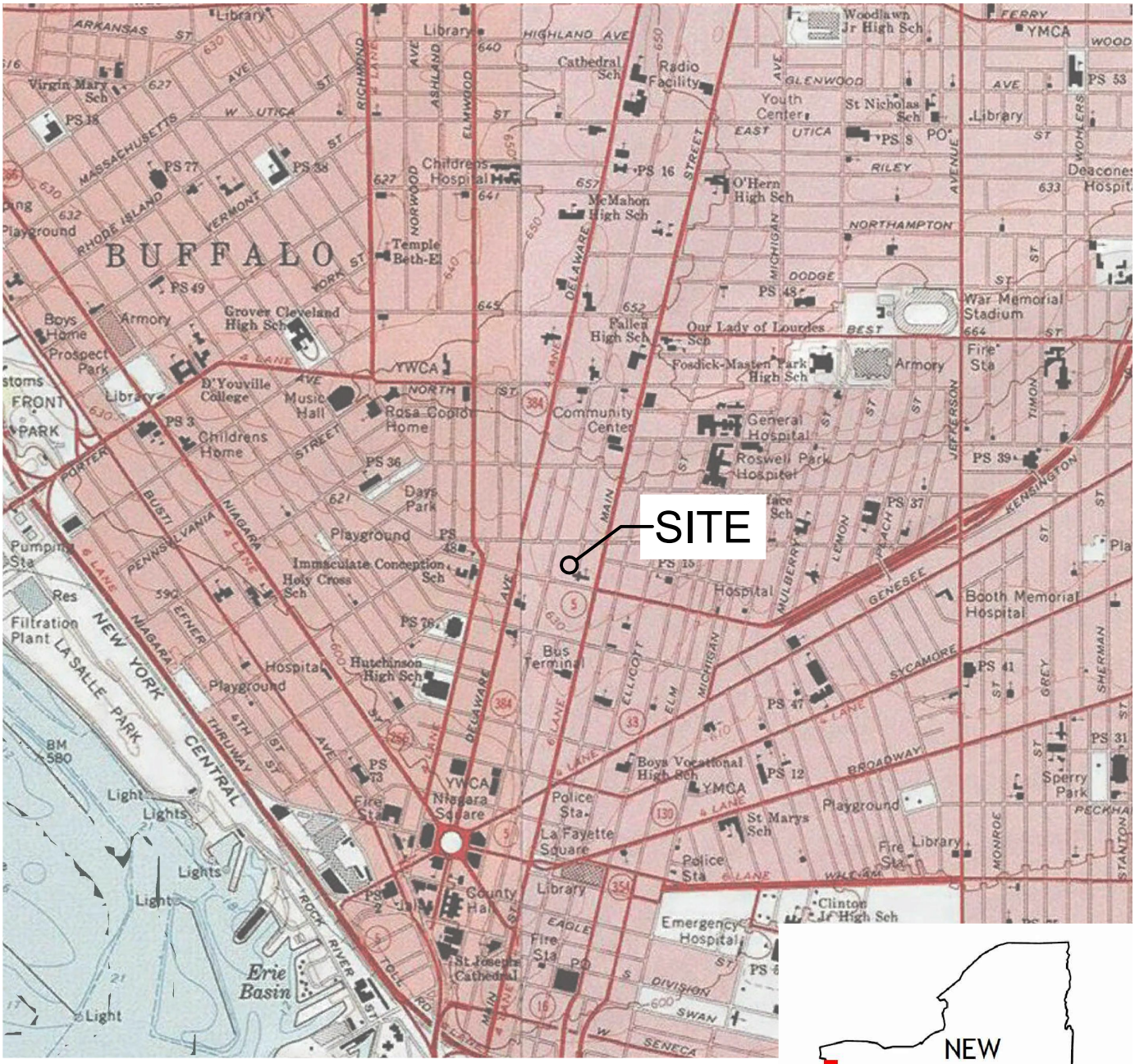
References:
1. Test Methods for Evaluating Solid Wastes, USEPA SW-846, Update III, 1991.

Notes:
1. EPA-approved methods published in Reference 1 above may be used.
2. Mercury sampling in soil/groundwater via EPA methods 7471/7470 respectively.

Acronyms:
VOCs = Volatile Organic Compounds
PFAS = Per- and Polyfluoroalkyl Substances
SVOCs = Semi-Volatile Organic Compounds
TCL = Target Compound List
TAL = Target Analyte List
WMG = Wide Mouth Glass
PCBs = Polychlorinated Biphenyls

FIGURES

FIGURE 1



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TURNKEY ENVIRONMENTAL RESTORATION, LLC
2558 HAMBURG TURNPIKE, SUITE 300, BUFFALO, NY 14218, (716) 856-0599

PROJECT NO.: 0395-018-001

DATE: OCTOBER 2019

DRAFTED BY: CEH

SITE LOCATION AND VICINITY MAP

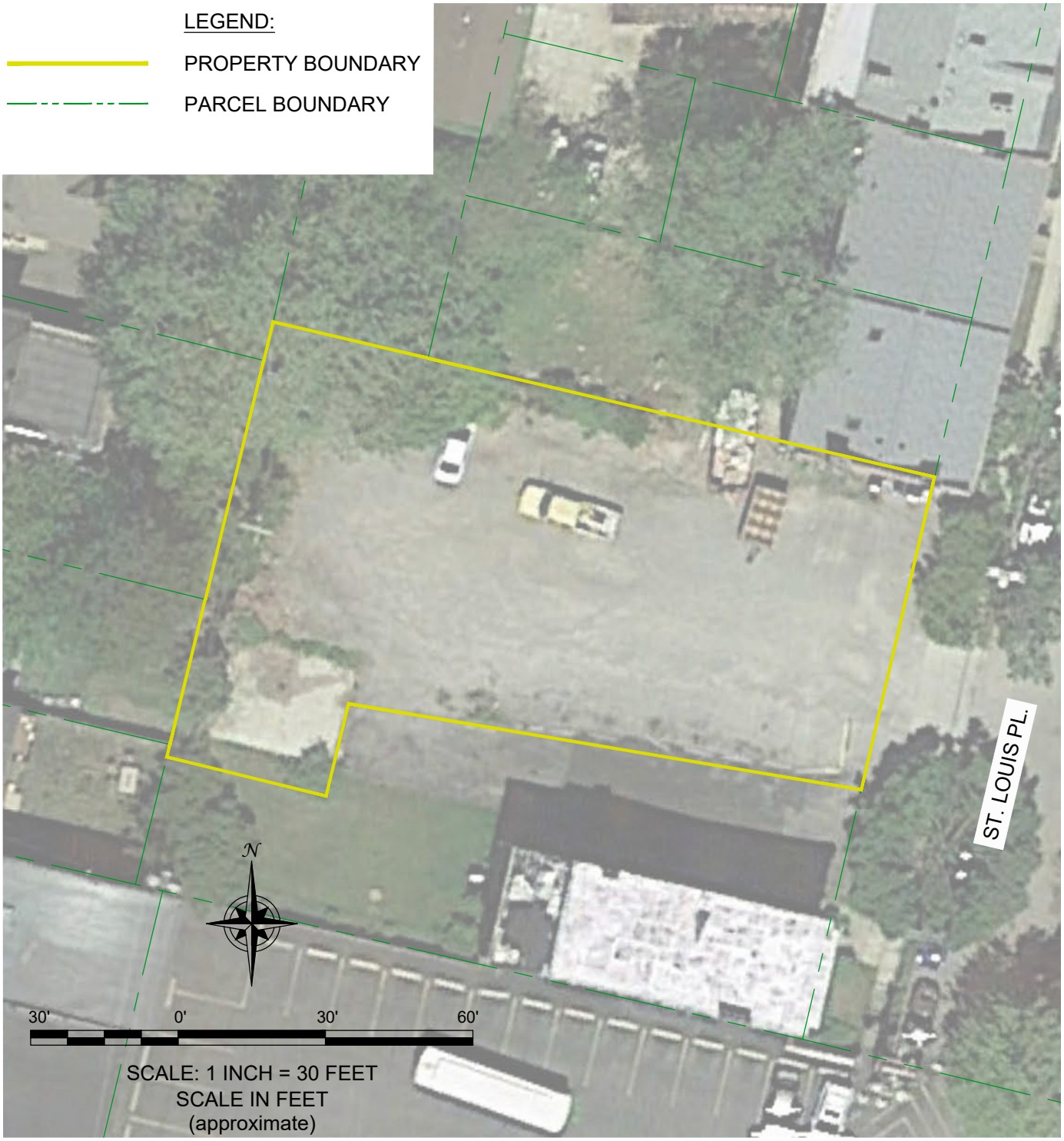
REMEDIAL INVESTIGATION / INTERIM REMEDIAL MEASURES WORKPLAN

8 SAINT LOUIS PLACE
BUFFALO, NEW YOTK

PREPARED FOR
MAIN ST LOUIS LP

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FIGURE 2



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PROJECT NO.: 0395-018-001

DATE: OCTOBER 2019

DRAFTED BY: CEH

SITE PLAN (AERIAL)

REMEDIAL INVESTIGATION / INTERIM REMEDIAL MEASURES WORK PLAN

8 SAINT LOUIS PLACE
BUFFALO, NEW YORK

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LEGEND:

BCP SITE BOUNDARY

TP-1 TEST PIT

NOTE:

VALUES PER NYCRR PART 375 SOIL CLEANUP OBJECTIVES (SCOs).

EXCEEDS PART 375 USCOs

EXCEEDS PART 375 RRSCOs

SITE WIDE FILL MATERIALS

TP-5 (0.5-6.0')	MG/KG
DATE OF SAMPLING EVENT - 9/17/2019	
BENZO(A)ANTHRACENE	2.5
BENZO(A)PYRENE	2.4
BENZO(B)FLUORANTHENE	3.7
BENZO(K)FLUORANTHENE	1
CHRYSENE	2.6
DIBENZO(A,H)ANTHRACENE	0.44
INDENO(1,2,3-CD)PYRENE	1.6
LEAD	105
MERCURY	0.278

TP-3 (0.5-2.0')	MG/KG
DATE OF SAMPLING EVENT - 9/11/2019	
LEAD	186
MERCURY	.318

TP-2 (0.5-2.0')	MG/KG
DATE OF SAMPLING EVENT - 9/11/2019	
BENZO(A)ANTHRACENE	2.4
BENZO(A)PYRENE	2.7
BENZO(B)FLUORANTHENE	3.7
BENZO(K)FLUORANTHENE	1.3
CHRYSENE	2.5
DIBENZO(A,H)ANTHRACENE	0.48
INDENO(1,2,3-CD)PYRENE	2.2
LEAD	459
MERCURY	0.307

TP-1

TP-4

TP-2

TP-5

TP-3

TP-6

TP-1 (0.5-2.0')	MG/KG
DATE OF SAMPLING EVENT - 9/11/2019	
BENZO(A)ANTHRACENE	6.7
BENZO(A)PYRENE	7.3
BENZO(B)FLUORANTHENE	9.4
BENZO(K)FLUORANTHENE	3.2
CHRYSENE	6.7
DIBENZO(A,H)ANTHRACENE	1.1
INDENO(1,2,3-CD)PYRENE	5.7

TP-4 (0.5-6.0')	MG/KG
DATE OF SAMPLING EVENT - 9/17/2019	
BENZO(A)ANTHRACENE	3.1
BENZO(A)PYRENE	3.5
BENZO(B)FLUORANTHENE	4.8
BENZO(K)FLUORANTHENE	1.6
CHRYSENE	3.1
DIBENZO(A,H)ANTHRACENE	0.61
INDENO(1,2,3-CD)PYRENE	2.7
LEAD	680

TP-6 (0.5-6.0')	MG/KG
DATE OF SAMPLING EVENT - 9/17/2019	
BENZO(B)FLUORANTHENE	1.3
INDENO(1,2,3-CD)PYRENE	0.64
LEAD	528
MERCURY	0.483

N

40' 0' 40' 80'

SCALE: 1 INCH = 40 FEET
SCALE IN FEET
(approximate)

DATE: OCTOBER 2019
DRAFTED BY: CEH

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TURNKEY ENVIRONMENTAL RESTORATION, LLC

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

JOB NO.: 0395-018-001

INVESTIGATION LOCATIONS AND AERAS OF CONCERN

REMEDIAL INVESTIGATION / INTERIM REMEDIAL MEASURES WORK PLAN

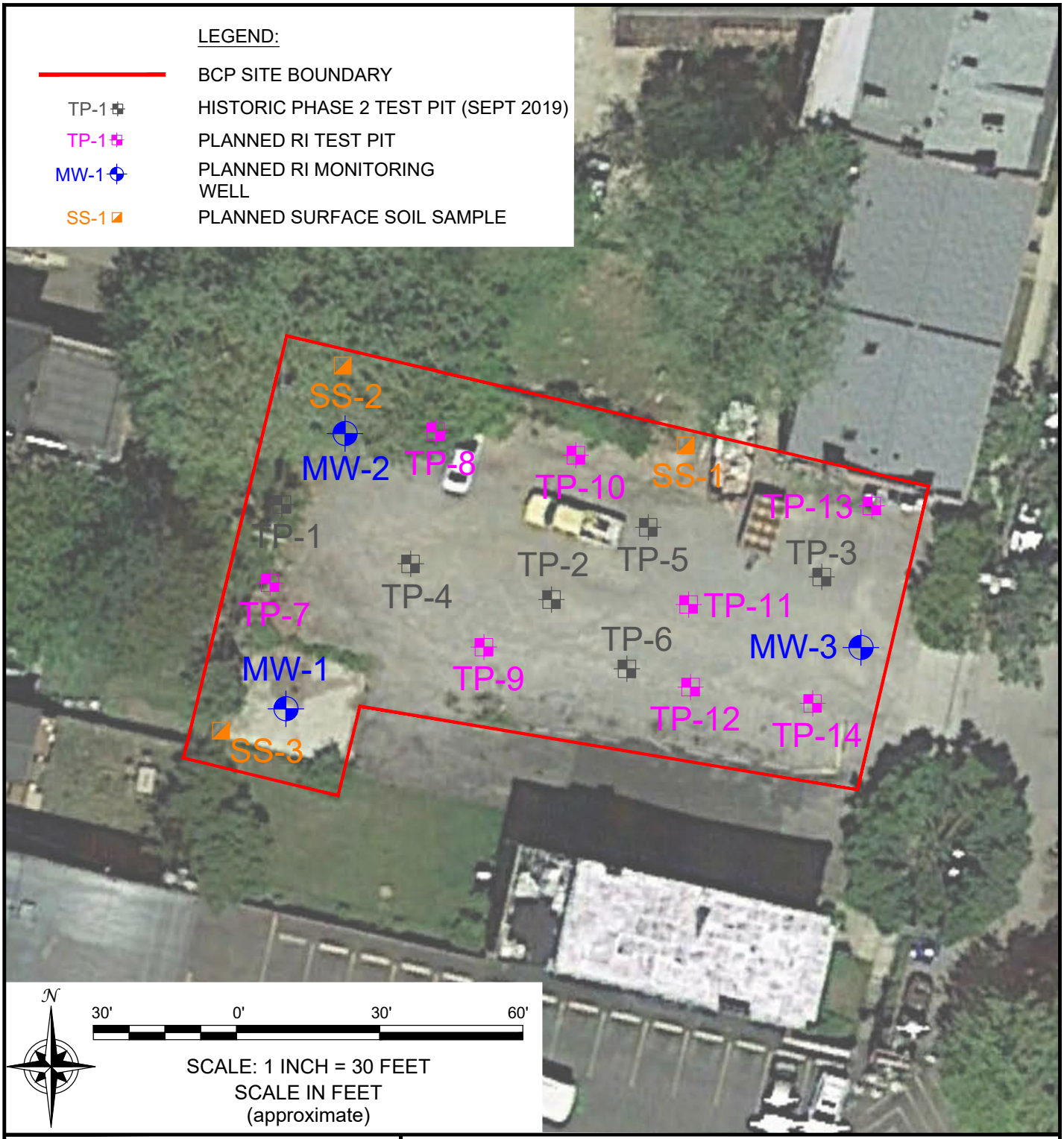
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FIGURE 3

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FIGURE 4



BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TURNKEY ENVIRONMENTAL RESTORATION, LLC

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

PROJECT NO.: 0395-018-001

DATE: OCTOBER 2019

DRAFTED BY: CEH

PLANNED REMEDIAL INVESTIGATION LOCATIONS

REMEDIAL INVESTIGATION / INTERIM REMEDIAL MEASURES WORK PLAN

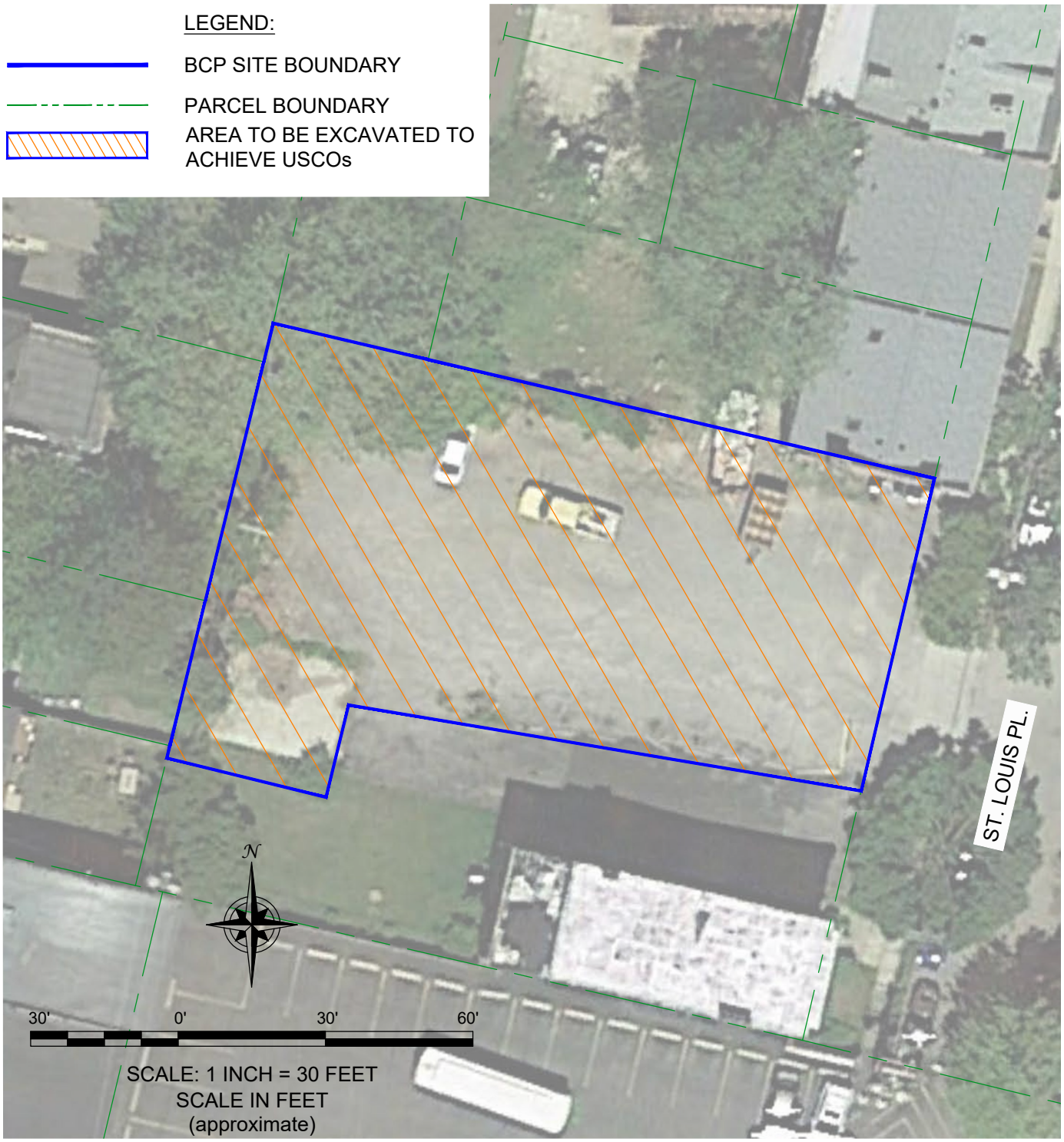
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BUFFALO, NEW YORK

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FIGURE 5



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

PROJECT NO.: 0395-018-001

DATE: OCTOBER 2019

DRAFTED BY: CEH

PLANNED INTERIM REMEDIAL MEASURES

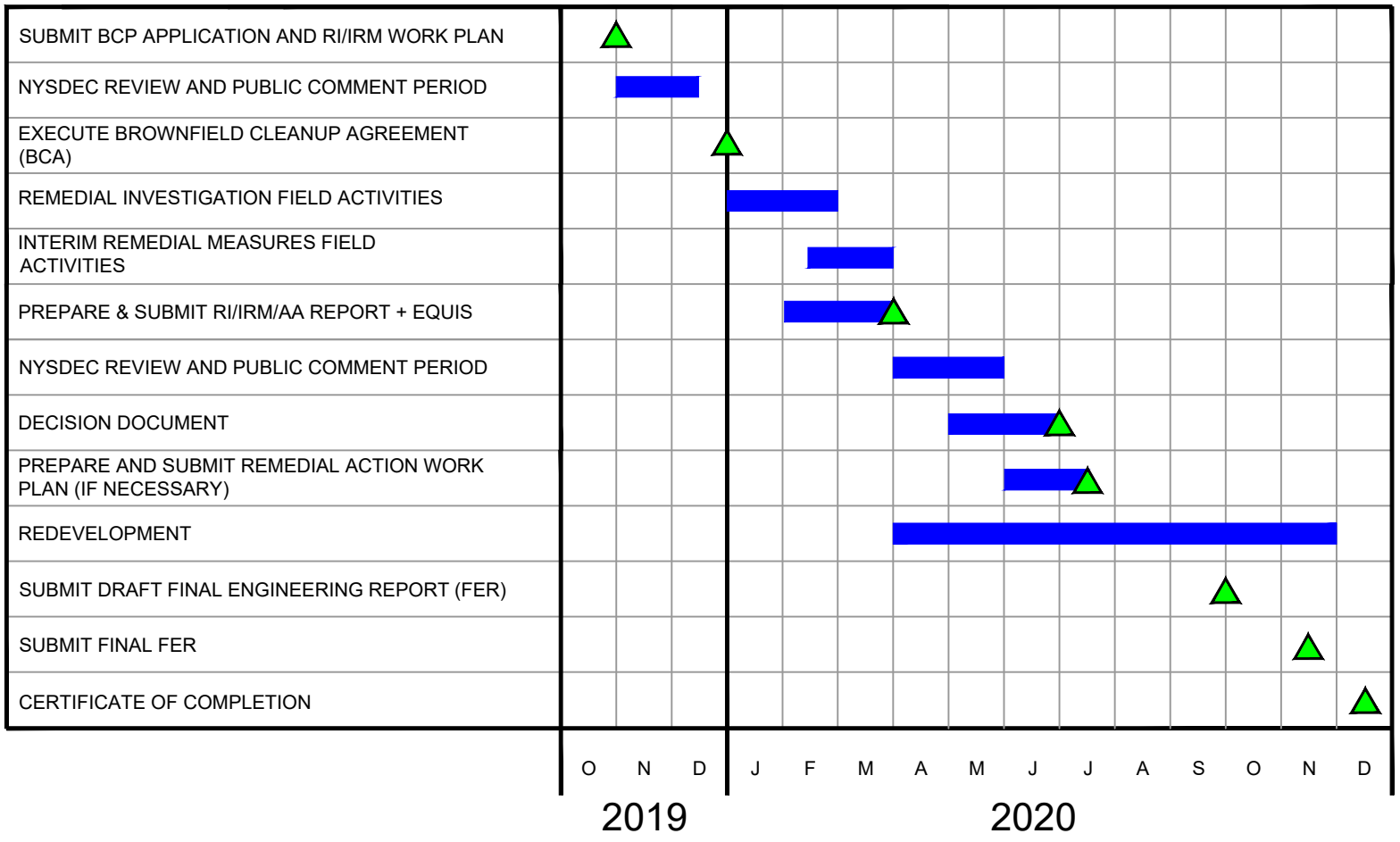
REMEDIAL INVESTIGATION / INTERIM REMEDIAL MEASURES WORK PLAN

8 SAINT LOUIS PLACE
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PROJECT TASKS:



BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TURNKEY ENVIRONMENTAL RESTORATION, LLC

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

PROJECT NO.: 0395-018-001

DATE: OCTOBER 2019

DRAFTED BY: CEH

PRELIMINARY PROJECT SCHEDULE

REMEDIAL INVESTIGATION / INTERIM REMEDIAL MEASURES WORK PLAN

8 SAINT LOUIS PLACE
BUFFALO, NEW YORK

PREPARED FOR
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FIGURE 6

***DISCLAIMER:* PROPERTY OF BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC. & TURNKEY ENVIRONMENTAL RESTORATION, LLC** *IMPORTANT: THIS DRAWING PRINT IS LOANED FOR MUTUAL ASSISTANCE AND AS SUCH IS SUBJECT TO RECALL AT ANY TIME. INFORMATION CONTAINED HEREON IS NOT TO BE DISCLOSED OR REPRODUCED IN ANY FORM FOR THE BENEFIT OF PARTIES OTHER THAN NECESSARY SUBCONTRACTORS & SUPPLIERS WITHOUT THE WRITTEN CONSENT OF BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC & TURNKEY ENVIRONMENTAL RESTORATION, LLC.*

APPENDIX A

RESUMES OF PROJECT PERSONNEL

THOMAS H. FORBES, P.E.
PRINCIPAL ENGINEER

EDUCATION

BS (Chemical Engineering) 1988; State University of New York at Buffalo
Graduate of State University of New York at Buffalo School of Management Center for Entrepreneurial Leadership; 2002
Graduate-level courses in Biological Principles of Engineering and Hazardous Waste Management through the State University of New York at Buffalo Department of Environmental Engineering

REGISTRATION AND AFFILIATIONS

Professional Engineer, New York
Professional Engineer, Ohio
ISO 14000 Certified Lead Auditor - April 1998
Member - American Institute of Chemical Engineers
Member – New York Water Environment Association, Inc.

SUMMARY OF EXPERIENCE

Mr. Forbes has over 26 years of environmental engineering experience, with a particular focus on brownfield and hazardous waste site investigation and remediation; petroleum-impacted site remediation; due diligence for environmentally-impaired properties; groundwater and industrial wastewater treatment; and environmental regulatory compliance. Investigations and cleanups Mr. Forbes has directed have included well over 100 sites contaminated with a wide range of materials, including chlorinated solvents, PCBs, dioxins, heavy metals, cyanide, radioactive isotopes, and petroleum contamination. He has evaluated and successfully implemented on a conventional and design-build basis cost-saving and innovative treatment technologies (e.g. in-situ and ex-situ physical-chemical, thermal, and biological treatment) as well as removal and containment methods for remediation.

REPRESENTATIVE PROJECT EXPERIENCE

June 1998 to Present: **Benchmark Environmental Engineering & Science, PLLC**

- Served as project manager for the investigation and hydrogeological assessment of the 2001 Webster Block site on behalf of the City of Buffalo. Work included a Phase II Site investigation, underground storage tank removal, groundwater pump test, and utility capacity evaluation performed under USEPA Pilot grant.

- Currently serving as Project Officer for NYSDEC Brownfield Cleanup Program (BCP) investigation and remediation of the former Millard Fillmore Gates Circle hospital complex in Buffalo, NY.

- Project officer for NYSDEC BCP investigation and cleanup of 154 South Ogden Street in concert with construction of the South Buffalo Charter School.

- Serving as project manager for remedial investigation, alternatives analysis, and remedial construction to facilitate redevelopment of over 450-acres of former steel manufacturing site property encompassing 33 separate BCP sub-parcel sites in Lackawanna, New York. Contaminants of concern primarily include petroleum organics/solvents and heavy metals.

- Project manager for RI/FS, remedial design and remedial construction at the Sycamore Village Site, a 4-acre NY State Environmental Restoration Program (ERP) site in Buffalo, NY. Responsible for all technical and administrative aspects of the project, involving removal of over 18,000 cubic yards of soil from an impacted residential neighborhood and site restoration.

- Assisted western NY client's legal counsel prepare legal defense related to a multi-PRP suit by Orange County Water District, Fullerton, CA for primary drinking water aquifer contamination by chlorinated solvents and emergent organic contaminants. Served as technical consultant during mediation and settlement discussions; prepared expert report and lead technical arguments on behalf of defendant to support bankruptcy claim dismissal.

- Served as project manager and supervising contractor for design-build remedial activities at the Markhams National Priority List (NPL) site in Dayton, NY. Successfully implemented remedial measures leading to USEPA-designated Preliminary Site Closeout status in October 2008 and delisting in 2009.

- Served as project manager representing multiple potential responsible party (PRP)-led remedial construction activities to address heavy metal and chlorinated solvent impacts at the Peter Cooper Landfill NPL site. Responsible for oversight and coordination of RI/FS planning and implementation activities, lead technical contact with USEPA, and remedial measures design and construction. Achieved site closeout in 2011.

- Served as project manager for design-build cleanup of the Urbana Landfill Site, a Class 2 Hazardous Waste Landfill Site. Designed and successfully implemented a Soil Vapor Extraction system to address source area chlorinated organics in soils, achieving soil cleanup goals with 12 months, Also responsible for design, startup and continued operation of a downgradient perimeter groundwater extraction well system and groundwater remediation utilizing advanced oxidation treatment.

- Assisted in the development of a voluntary cleanup plan for remediation of a 120-acre former steel manufacturing site in Buffalo, NY which was contaminated with volatile organic compounds, heavy metals, poly-nuclear aromatic hydrocarbons. Specific assistance involved design of a soil vapor extraction (SVE) system to address VOC and SVOC source area impacts proximate to a residential neighborhood and development and implementation of a Community Air Monitoring Plan involving quantitative monitoring (Summa Canister and respirable particulate analysis) and qualitative monitoring (field instruments).

- Served as Project Manager for RI/FS and cleanup activities related to solvent releases from a former paint and specialty coatings manufacturing facility in Buffalo, NY. The work, carried out under NY State Superfund program, included insitu treatment of soils and groundwater impacted by chlorinated and non-chlorinated volatile organics and heavy metals.

- Assisted confidential client's legal counsel negotiate a consent decree with New Mexico Environment Department related to cleanup of chlorinated solvent releases to the fractured bedrock aquifer from a former manufacturing operation in Albuquerque, NM. Presently managing insitu groundwater cleanup and monitoring work.

- Currently serving as Project Manager for NY State Voluntary Cleanup efforts for chlorinated solvent cleanup at a former degreasing and electroplating facility in Rochester, NY. Designed and implemented interim remedial measures involving low-profile air stripping and insitu hydrogen infusion.

- Served as Project Manager for multiple EPA Pilot-Grant funded investigations for City of Buffalo Department of Strategic Planning.

- Project manager for remedial investigation, alternatives analysis, and remedial construction to facilitate redevelopment of over 450-acres of former steel manufacturing site property in Lackawanna, New York. Contaminants of concern primarily include petroleum organics and heavy metals.

- Managed design-build cleanup of former New 7th Street Brownfield Cleanup Program Site in Buffalo, New York. The project involved design-build removal of several hundred tons of petroleum-impacted soil and fill material and preparation of related engineering reports resulting in Certificate of Completion issuance.

- Led remedial efforts for petroleum releases at a Western New York refinery and major oil storage facility, achieving site inactivation within 3 months of the release.

- Managed spill site investigation and cleanup work including underground storage tank removal work at numerous petroleum and chemical spill sites in Western New York.

- Led design-build construction of a 5 MGD capacity cooling water pH adjustment system for PVS Chemical Corporation. The project included design of feed forward pH control system, adjustment tank and mixer construction, process and chemical feed piping modifications to neutralize sulfuric acid discharges. Successfully implemented startup and demonstration testing.

- Designed a 75 gpm groundwater treatment system and served as quality assurance officer for remedial efforts at the Steelfields site (former LTV Steel/Hanna Furnace Site), Buffalo, NY. The treatment system removes petroleum-based volatile organic and semi-volatile organic compounds prior to discharge to the Buffalo Sewer Authority.

June 1988 to June 1998 **Malcolm Pirnie, Inc.**

- Assisted the City of Buffalo Department of Community Development in implementing an emergency PCB-contaminated soil removal effort from a residential neighborhood in Buffalo, NY. Responsibilities included coordination of hazmat excavation contractor and secure landfill, preparation of an emergency excavation and confirmatory sampling plan, and oversight of community air monitoring during the removal work.

- Designed and successfully implemented an innovative groundwater treatment system for the Mercury Aircraft, Inc. Class 2 hazardous waste site in Dresden, New York. Responsibilities included preparation of design plans and specifications for an advanced oxidation process and low profile air stripper, construction oversight and treatment system start-up.

- Performed a Feasibility Study and prepared an Engineering Design Report for remediation of PCB-contaminated soils and sediments at the Columbus McKinnon Corporation, Tonawanda, New York. Responsibilities included detailed evaluation of several remedial processes, completion of design calculations and remedial cost estimates, and preparation of a final report for submission to NYSDEC.

- Assisted in performance of a Feasibility Study for the West Valley Nuclear Demonstration Site. The Feasibility Study evaluated alternatives for remediation of groundwater contaminated with radioactive isotopes from a former containment area release.

- Assisted in the design and performed start-up of a groundwater remediation system for Moog, Inc., an aerospace parts manufacturer. The project, performed on a design-build basis, involved preparation of design plans, securing contractor bids for construction, and start-up of the remediation system, which incorporates filtration and air stripping to remove chlorinated volatile organic contaminants from groundwater.

- Designed and implemented groundwater monitoring well decommissioning procedures for the Love Canal site, Niagara Falls NY. The project was performed on behalf of NYSDEC and included abandoning of monitoring wells no longer used in the Love Canal landfill or in adjoining neighborhoods.

- Prepared an environmental monitoring plan for remediation of PCB-contaminated sediments in the St. Lawrence River along the General Motors, Inc. Powertrain Division facility in Massena, New York.

- Assisted in the performance of a Feasibility Study for remediation of volatile organic, PCB and heavy metal-contaminated soils and ground water at the Rochester Fire Academy, Rochester, New York.

PUBLICATIONS/PRESENTATIONS

Forbes, Thomas H. and Frappa, Richard H. "Innovative Remedial Measures for the Mercury Aircraft Site" Proceedings of the Purdue University 50th Annual Industrial Waste Conference, May 1995.

Frappa, Richard H., Forbes, Thomas H. and McManus, Anne Marie "A Blast to Remediate" Industrial Wastewater, July/August 1996.

Forbes, Thomas H. and McManus, Anne Marie "Advanced Oxidation Technology and Application" Proceedings of the University at Buffalo 28th Mid-Atlantic Industrial and Hazardous Waste Conference, July 1996.

Forbes, Thomas H. et al - "Pay to Throw in Buffalo" Proceedings of 1997 Solid Waste Association of North America annual conference.

Forbes, T.H. & Werthman, P.H. "Development of Site-Specific Cleanup Levels for Commercial Redevelopment of a Large Former Steel Works," presented at the Brownfields 2000 Conference, Atlantic City NJ, October 2000.

Forbes, Thomas H. and Frappa, Richard H. "Innovative Remedial Measures Almost 10 Years Later at the Former Mercury Aircraft Site" Proceedings of the National Groundwater Association Northeast Conference, October 2002.

Forbes, Thomas H. "Ins and Outs of the New York State Brownfield Cleanup Program" Air & Waste Management Association, Niagara Frontier Section, Annual Environmental Seminar (presentation), April 2006.

Forbes, Thomas H. "Brownfield Redevelopment" Proceedings of Half Moon Seminar's "New York Environmental Compliance for Design Professionals" conference, September 2008.

Forbes, Thomas H. "New York State Brownfield Cleanup Program Update" Air & Waste Management Association Annual Environmental Seminar (presentation), April 2009.

MICHAEL LESAKOWSKI
SR. PROJECT MANAGER

EDUCATION

Master of Science (Environmental Engineering Science), University of Buffalo, 2008
Bachelor of Science (Biology), State University of New York at Fredonia, 1994

REGISTRATION

40-Hour OSHA Health and Safety Training
Annual 8 Hour OSHA Refreshers
ASTM Training for Commercial Property Transaction Due Diligence

SUMMARY OF EXPERIENCE

Mr. Lesakowski has over 15 years experience in the environmental consulting field at numerous industrial, commercial and hazardous waste sites throughout the northeast United States. A summary of projects Mr. Lesakowski has been involved with include all aspects of New York Brownfield Cleanup Program projects, New York State Superfund Program projects, New York Petroleum Spills Department projects, over 1,000 Phase I Environmental Site Assessments and more than 200 Phase II Site Investigations associated with property acquisition and divestiture and numerous remediation projects ranging from simple underground storage tank (UST) removals to complex groundwater remediation programs. Mr. Lesakowski is proficient in vapor intrusion modeling of chlorinated solvent and petroleum volatile organic compound (VOC) impacted sites. Mr. Lesakowski also has project management and technical consulting experience on several multi-site portfolio environmental due diligence assignments, working with purchasers and lenders to facilitate multi-million dollar real estate transactions. Prior to joining Benchmark, Mr. Lesakowski was a principal in an environmental consulting firm with offices in New York, Pennsylvania, Ohio and Maryland. Mr. Lesakowski is currently managing ten New York Brownfield Cleanup Program sites and several New York Spill Sites. He has managed assessments, investigations and remediation projects on properties with a multitude of historic uses (e.g., petroleum storage terminals, gas stations, automobile dealerships, rail yards, foundries, drycleaners, steel manufacturing, metallurgical plants, metal plating operations, junk yards), media types (surface and subsurface soil, groundwater, sediments, soil vapor, indoor air, building materials) and contaminants (e.g, VOCs, semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), heavy metals).

NEW YORK BROWNFIELD CLEANUP PROGRAM EXPERIENCE

348 Langner Road Site, West Seneca, New York

- Recently completed a Remedial Investigation and Interim Remedial Measures (IRM) for a property that was formerly developed as a retail gasoline station since the 1940s. Contaminants of concern include petroleum VOCs in soil and groundwater. The IRM included removal of over 8,000-tons of petroleum-impacted soil and removal of eight underground storage tanks (USTs) and related infrastructure and piping. During the remedial work, certain soil that was not impacted was field-screened on-Site, characterized via analytical testing to show that it was not impacted with contaminants of concern, and transported off-Site to an approved destination site with permission from NYSDEC. This screening of on-site materials saved our client over 4,000 cubic yards of material that would have otherwise been sent to a landfill at significant additional cost.

285-295 Niagara Street Site, Buffalo, New York

- Recently completed a Remedial Work for a property that was formerly developed as a bicycle factory from the 1800s, and a car wash and gasoline station since the 1950s. Contaminants of concern include petroleum VOCs in soil and groundwater. The remedial work included removal of approximately 4,500-tons of petroleum-impacted soil and removal of two underground storage tanks (USTs) that were encountered during excavation. During the remedial work, certain soil that was not impacted was field-screened on-Site, characterized via analytical testing to show that it was not impacted with contaminants of concern, and re-used on-Site with permission from NYSDEC. This screening of on-site materials saved our client from disposing of clean material that would have otherwise been sent to a landfill at significant additional cost.

125 Main Street Site, Buffalo, New York

- Recently completed a Remedial Investigation for a property known as the Former Donovan building, located in the City of Buffalo, NY, which was formerly industrial and commercial site, which as filled with miscellaneous historic fill materials. Contaminants of concern include petroleum VOCs, SVOCs and metals in soil. The remedial work was started in 2012 and is expected to be completed in 2013.

301 Franklin Street Site, Olean, New York

- Recently received a certificate of completion (COC) for a NY Brownfield Program Site. As part of the project, Mr. Lesakowski managed a Remedial Investigation and Interim Remedial Measures for a property located within the ExxonMobil Legacy Site (EMSL) area, which was formerly developed as a petroleum refinery. Contaminants of concern include petroleum VOCs, SVOCs and metals in soil and VOCs and SVOCs and non-aqueous phase liquid (NAPL) in groundwater. The IRM included removal of approximately 3,000-tons of metals- and petroleum-impacted soil and removal of 5,800 linear feet of abandoned subsurface piping. Remedial work included soil excavation and disposal; removal of abandoned subsurface piping and infrastructure; installation of a soil vapor extraction system; installation of an active subslab depressurization (ASD) system in the building; and, construction of a soil cover system.

Homer Street Redevelopment Site, Olean, New York

- Recently completed Interim Remedial Measures that included removal of approximately 11,000 linear feet of abandoned subsurface piping and 48 drums of residual piping contents. A Remedial Investigation was previously completed for this property, which is located within the ExxonMobil Legacy Site (EMSL) Works #3 area, which was formerly developed as a petroleum refinery. Contaminants of concern include grossly contaminated soils impacted with tar-like material, petroleum VOCs, SVOCs and metals in soil and VOCs, SVOCS and light non-aqueous phase liquid (LNAPL) in groundwater. Remedial Investigation work completed 2011-2012 included test pit excavations, soil borings/monitoring wells, surface soil, subsurface soil, sediment, surface water and groundwater sampling and delineation of surficial petroleum contamination.

NOCO S-41 Site, Buffalo, NY and Niagara Street and Pennsylvania Avenue Site, Buffalo, NY

- Recently completed a Remedial Investigation (RI), Interim Remedial Measures (IRM) and Remedial Alternatives Analysis under the NYSDEC Brownfield Cleanup Program for two former gasoline station and automotive repair facilities with significant soil and groundwater petroleum VOC impact. The remediation approach for both sites involves removal of abandoned underground storage tanks, product dispensers and piping, removal of in-ground hydraulic lifts,

soil excavation, and extraction and treatment of impacted groundwater. Final Engineering Reports and Site Management Plans were approved by the NYSDEC in December 2009 and Certificates of Completion were also issued in December 2009.

3807 Highland Avenue Site, Niagara Falls, New York

- Completed a Remedial Investigation (RI), Interim Remedial Measures (IRM) and Remedial Alternatives Analysis under the NYSDEC Brownfield Cleanup Program sites at a historic metallurgical facility and steel factory in Niagara Falls, NY. The Remedial Investigation involved collecting over 100 surface and subsurface soil and sediment samples and installing and sampling groundwater monitoring wells on an approximate 25-acre parcel slated for future mixed used commercial and industrial development. IRMs include excavation of chromium-impacted, arsenic-impacted and SVOC-impacted soil in several areas of the Site, drum and tank removal, catch basin and sump cleaning, smoke stack deposits remediation, and chemical waste removal. A Certificate of Completion was issued in June 2010.

1501 College Avenue Site, Niagara Falls, New York

- A Certificate of Completion was issued in December 2012 for this BCP site. Mr. Lesakowski managed a Remedial Investigation (RI), Interim Remedial Measures (IRM) and Remedial Alternatives Analysis under the NYSDEC Brownfield Cleanup Program sites at a historic heavy industrial facility in Niagara Falls, NY. The Remedial Investigation involved collecting surface and subsurface soil and sediment samples and installing and sampling groundwater monitoring wells on an approximate 15-acre parcel. IRMs include excavation of petroleum-impacted, PCB-impacted and SVOC-impacted soil in several areas of the Site, removal of galbestos PCB-impacted building materials, abandoned/damaged drum removal, chemical waste removal and a soil cover system.

275 Franklin Street Site

- Currently managing a NYSDEC Brownfield Cleanup Program site formerly used as drycleaner in western New York with significant soil and groundwater chlorinated VOC impact. Soil was successfully remediated using soil vapor extraction (SVE) to unrestricted soil cleanup objectives (SCOs) and groundwater remediation involves in-situ treatment of impacted groundwater. An active sub-slab depressurization system design and installation is planned in the new building during construction.

330 Maple Road Site, Amherst, New York

- Managed a Remedial Investigation (RI) and Remedial Alternatives Analysis under the NYSDEC Brownfield Cleanup Program for a small-arms shooting range with significant lead and semi-volatile organic compound (SVOC) impact. The RI involved collecting over 1,000 soil samples on 26-acre parcel slated for future mixed-use commercial and residential development. Bench-scale testing was completed to select a substrate to treat the characteristic hazardous soil to below toxicity characteristic leaching procedure (TCLP) thresholds. A Remedial Action Work Plan, which called for in-situ stabilization of characteristic hazardous soil and off-site disposal was prepared and approved by the NYSDEC. The remediation, which achieved a Residential Cleanup, was completed from the summer of 2011 through winter 2012. A certificate of completion was issued in spring 2012.

Seneca Market I, LLC Site, Watkins Glen, New York

- Managed Site Remediation at a former drycleaner, bus garage and asphalt plant under the NYSDEC Brownfield Cleanup Program with significant chlorinated volatile organic compound (cVOC) impact. The remediation approach involved underground tank removal, in-ground hydraulic lift removal, hazardous soil excavation and enhanced biodegradation of groundwater. The Site received its certificate of completion in December 2008. The Property is currently developed with an up-scale hotel. The project is highlighted on NYSDEC website as a Brownfield Success Story.

GLR Holdings Site, Niagara Falls, New York

- Managed a Remedial Investigation (RI), Interim Remedial Measure (IRM) and Remedial Alternatives Analysis under the NYSDEC Brownfield Cleanup Program for a former automotive repair facility with significant soil and groundwater chlorinated VOC impact. The remediation approach involved negotiated soil and groundwater cleanup objectives, limited soil excavation and enhanced biodegradation of groundwater. The Site received its certificate of completion in February 2008.

2250 Factory Outlet Boulevard Site, Niagara Falls, New York

- Managed Remedial Investigation (RI), Interim Remedial Measure (IRM) and Remedial Alternatives Analysis under the NYSDEC Brownfield Cleanup Program at a former lumber yard with chromium impact in Niagara Falls, NY. The remediation approach involved excavation and off-Site disposal of hazardous and non-hazardous soil. The Site received its certificate of completion in December 2007.

New Seventh Street Site, Buffalo, New York

- Managed the investigation of a former gasoline station and adjacent manufactured gas plant (MGP) as part of one of the largest Brownfield redevelopment projects in western New York. The project involves site redevelopment from a historic MGP site and adjacent gasoline station to a multi-million dollar commercial office complex. Acting on behalf of the developer (Duke Realty) and future tenant (HealthNow New York); preliminary investigations were completed to evaluate the nature and location of contaminants. Subsequent site investigation and remediation was completed via a Remedial Investigation (RI) and Interim Remedial Measures (IRM) under the New York State Brownfield Cleanup Program, saving months and significant cost. As a concurrent assignment, acted as a technical consultant to the developer and future tenant on negotiations and advisement on development of an environmental liability transfer arrangement between the purchaser/tenant (client), seller and a national remediation contractor.

OTHER PERTINENT EXPERIENCE

- Managed a site assessment and site investigations for a portfolio of retail gasoline stations in western New York. Project tasks include a historical review to determine sites' histories, review of previous technical reports, soil and groundwater investigations and remediation cost estimating for site cleanups. This project also involves forensic analyses of soil and groundwater samples to estimate the relative time of historic spills to determine the liability and responsibility for remediation of historic petroleum spills on-site.

- Managed a Phase I/Phase II site investigations for the Buffalo Urban Development Corporation for two parcels in the City of Buffalo encompassing approximately 100-acres. The project

involved Phase I ESAs to assess potential historic concerns in a historic heavy industrial area and subsequent soil and groundwater investigations to investigate subsurface environmental conditions. A portion of the property was subsequently developed with an industrial facility.

- Managed environmental due diligence, including Phase I/Phase II investigations of five active service stations in central and eastern upstate New York for a potential purchaser. Phase I ESAs indicated a history of gasoline stations on-site. In conjunction with the purchaser and seller, it was negotiated that a baseline assessment of soil and groundwater impact would be completed to establish responsibility for addressing contamination going forward. The purchaser was able to purchase the sites with no liability for historic petroleum spills on-site.

- Managed investigation and remediation of a former automobile dealership in Rochester, New York. Site investigations, competed with oversight of NYSDEC Spills division, indicated soil impact as a result of leaking gasoline, diesel and waste oil USTs and floor drain discharges. Remedial tasks included a removal of four USTs and associated pump dispensers, closing/sealing interior floor drains and excavation and off-site disposal of 1,500 cubic yards of impacted soil.

- Performed fieldwork at a 50-acre industrial park in western New York. Task included a soil boring and monitoring well installation program, development and sampling of monitoring wells and a hydraulic conductivity assessment. Subsequent remedial tasks included removal of six underground storage tanks and petroleum-impacted soil and a long-term groundwater monitoring plan.

- Performed fieldwork and reporting for RI/FS of NYSDEC superfund site in Long Island, NY. Investigation activities at this former metal plating facility included soil investigation, monitoring well installation and groundwater sampling, hydraulic conductivity testing, and floor drain/cess pool investigation. IRM activities included closure of interior floor drains and removal of heavy metals impacted soil.

ENVIRONMENTAL LIABILITY TRANSFER EXPERIENCE

- Starting in 2010 through present, took the lead role in developing a liability transfer arrangement of a former refinery in New York State. Major tasks included technical review of historic Remedial Investigation data, remedial alternative selection and cost estimating, preparation of technical and liability transfer program proposal and negotiation with Fortune 100 company technical and business representatives. The deal involves a multi-million dollar remedial cleanup that is planned to be completed under the New York Brownfield Cleanup Program.

- Managed environmental consulting and due diligence activities for a purchaser of 182 gasoline service stations in Maryland, Virginia and Washington, DC. Tasks included Phase I ESAs, remediation cost estimating for sites with known impacts and/or on-going remediation and interfacing with the client's lenders to facilitate a $110 million dollar real estate transaction. An Environmental Liability Transfer arrangement funded by the seller facilitated the additional environmental investigation and remediation of impacted sites.

- Played a key role in developing a liability transfer agreement for the transfer of a 48-site portfolio of gasoline stations with known petroleum impacts. Tasks included Phase I/Phase scoping, technical report review, oversight of remediation cost estimates and interfacing with the attorneys, insurance brokers, client and property sellers to develop and present the liability transfer arrangement.

- Provided technical consulting on behalf of HealthNow New York and Duke Realty for developing a liability transfer agreement for the transfer of a former manufactured gas plant site and gasoline station with significant soil, groundwater and soil vapor petroleum impacts. Tasks included technical report review, remediation cost estimating and interfacing with the attorneys, insurance brokers, client and property sellers to develop the liability transfer arrangement. Benchmark/TurnKey completed the remediation of the former gasoline station portion of the Site.

BRYAN W. MAYBACK
SENIOR PROJECT SCIENTIST

EDUCATION

Bachelors of Science (Earth Sciences, Environmental Concentration) 2002; State University of New York, College at Buffalo
Associates in Applied Science (graduated with high distinction), Environmental Technology (1999) Trocaire College, Buffalo, New York

REGISTRATION AND AFFILIATIONS

Hazardous Material Handling 40 hour (OSHA)
Hazardous Material Handling 8 hour Supervisor Training (OSHA)
Environmental Site Assessments for Property Transfer (ASTM Conference)
New York State and EPA Certified Asbestos Air and Project Monitoring Technician
Construction Safety Training 10 hour (OSHA)

SUMMARY OF EXPERIENCE

Since 2002, Bryan Mayback has been involved in various aspects of the environmental field. While with one of the largest due diligence firms in the northeast, Mr. Mayback was involved with hundreds of lenderbased environmental studies. These studies included Phase I and Phase II environmental site assessments in Western New York and throughout the U.S. Mr. Mayback provided project management as well as the completion of the field work, written reports, and final report reviews. He has also provided consulting services for major petroleum companies such as ExxonMobil. Mr. Mayback was involved with large scale excavation projects (removal of up to 15,000 tons of impacted soil and treatment of over 200,000 gallons of groundwater), sensitive receptor surveys, hydrogeologic studies, impact delineation studies, and pilot testing relative to alternative remedial measures (other than soil excavation). He has performed groundwater monitoring activities, including well gauging, purging (bailers and low-flow) and sampling. Through the years, Mr. Mayback has been responsible for the closure/reclassification of many NYSDEC listed spills based on results of remedial activities that he was involved with and proposed.

REPRESENTATIVE PROJECT EXPERIENCE

June 2009 to July 2014: **RJS Environmental, Inc.**
Vice President (2009), President

- **Environmental Due Diligence Projects.** Project Officer and Manager for all Environmental Site Assessment projects including Phase I and intrusive (Phase II) studies, for banks, developers, lawyers, owners, etc. Responsible for client communications, report reviews, and project management ensuring projects are completed on time and within budget.

September 2007 – June 2009 **Groundwater and Environmental Services, Inc**

- **Major Petroleum Companies, NY**. Provided consulting services for ExxonMobil and other major petroleum companies that facilitated active New York State DEC listed spills towards closure. These sites were environmentally challenged properties in differing stages of remediation located mostly in Western New York. As Case Manager/Environmental Scientist provided oversight for various environmental activities, including soil excavation, dewatering/groundwater treatment and discharge, soil

boring and monitoring well installation, remedial pilot testing, test pits and product recovery. Also responsible for completion and review of Remedial Action Work Plans, Excavation Reports, Quarterly Site Monitoring Reports, and pilot test reports for submittal to the NYSDEC and ExxonMobil.

November 2002 – September 2007 **Lender Consulting Services**

- As Senior Environmental Analyst, involved in developing hundreds of lender-based Phase I and Phase II environmental site assessments (including site inspections, municipal record reviews, soil/groundwater sampling, and UST removals) in Western New York as well as throughout the U.S. Responsible for review of Environmental Site Assessment Reports, and training and supervising staff involved in site assessments. Communicated property related potential environmental issues and solutions to clients.

Summer 2000 **AFI Environmental**

- As Environmental Specialist, supervised the removal of impacted soil via excavation at a site in Buffalo, New York. Groundwater was treated with activated carbon and discharged to the storm sewer. Also Constructed a remediation field for impacted soil and groundwater; collected soil and groundwater samples for laboratory analysis; and reviewed analytical data and report preparation.

APPENDIX B

PREVIOUS INVESTIGATION

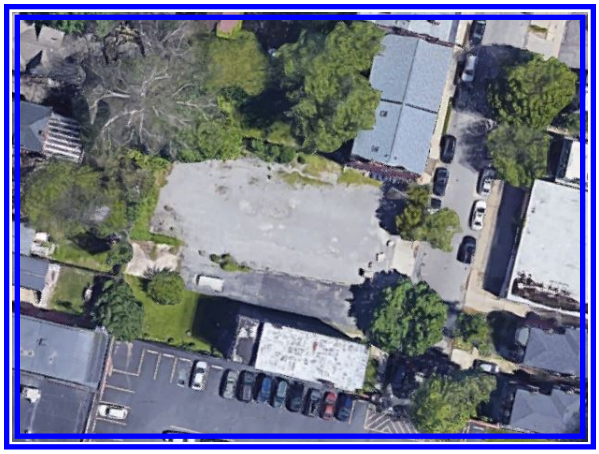
Phase I Environmental Site Assessment (ESA)

8 SAINT LOUIS PLACE
BUFFALO, NEW YORK

April 2018 T0395-018-001

Prepared For:

LEGACY DEVELOPMENT



Prepared By:

TurnKey Environmental Restoration, LLC

2558 Hamburg Turnpike, Suite 300, Buffalo, New York | phone: (716) 856-0635 | fax: (716) 856-0583

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ASTM E1527-13

FOR
8 SAINT LOUIS PLACE
BUFFALO, NEW YORK

April 2018 T0395-018-001

Prepared for:

LEGACY DEVELOPMENT

250 Ramsdell Avenue
Buffalo, New York 14216

Prepared by:

TURNKEY ENVIRONMENTAL RESTORATION, LLC

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Buffalo, New York 14218

PHASE I ENVIRONMENTAL SITE ASSESSMENT
8 SAINT LOUIS PLACE
BUFFALO, NEW YORK

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List of Acronyms

ACMs - Asbestos Containing Materials

AIRS- Aromatic Information Retrieval System

AST - Aboveground Storage Tank

ASTM - American Society for Testing and Materials

BCA- Brownfield Cleanup Agreement

BCP- Brownfield Cleanup Program

Benchmark - Benchmark Environmental Engineering & Science, PLLC

BTEX - Benzene, toluene, ethylbenzene, and xylenes

CAA – Clean Air Act

CAMP- Community Air Monitoring Plan

CBS - Chemical Bulk Storage

C/D- Construction and Demolition

CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act

CERCLIS - Comprehensive Environmental Response, Compensation, and Liability Information System

CESQG - Conditionally Exempt Small Quantity Generator

CFR- Code of Federal Regulation

COC- Certificate of Completion

CO2- Carbon Dioxide

CP- Commissioner Policy

CSCOs – Commercial Soil Cleanup Objectives

CVOC- Chlorinated Volatile Organic Compound

CORRACTS - Corrective Action

CPG - Certified Professional Geologist

CREC - Controlled Recognized Environmental Condition

DER- Division of Environmental Remediation

DNAPL- Dense Non-Aqueous Phase Liquid

EC- Engineering Control

ECL- Environmental Conservation Law

ECHO- Enforcement and Compliance History Information

ELAP- Environmental Laboratory Approval Program

EDR - Environmental Data Resources, Inc.

ERNS - Emergency Response & Notification System

ESA – Environmental Site Assessment

ETPH - Extractable Total Petroleum Hydrocarbons

FBGS - Feet below ground surface

FIFRA - Federal Insecticide, Fungicide, & Rodenticide Act

FINDS - Facility Index System/Facility Registry System

FOIA - Freedom of Information Act

FOIL - Freedom of Information Letter

FOP- Field Operating Procedure

NYSDOH - New York State Department of Health

NYSDOL - New York State Department of Labor

O&M- Operations and Maintenance

OM&M- Operation, Maintenance, and Monitoring

OPRA - Open Public Records Act

OSHA - Occupational Safety and Health Administration

PAH - Polycyclic aromatic hydrocarbons

PBS - Petroleum Bulk Storage

PCBs - Polychlorinated Biphenyls

pCi/L - picoCuries per Liter

PERC - Tetrachloroethylene (perchloroethylene)

PID - Photo-Ionization Detector

PPB - Parts Per Billion

PPM - Parts Per Million

PRP - Potentially Responsible Party

PRR- Periodic Review Report

PVEC - Potential Vapor Encroachment Condition

QA/QC- Quality Assurance/Quality Control

QAPP- Quality Assurance Project Plan

RAO- Remedial Action Objective

RAWP- Remedial Action Work Plan

RCRA - Resource Conservation and Recovery Act

RCRIS - Resource Conservation and Recovery Information System

REC - Recognized Environmental Condition

RI- Remedial Investigation

RI/FS- Remedial Investigation/Feasibility Study

ROD- Record of Decision

RP- Remedial Party

RRSCOs – Restricted Residential Soil Cleanup Objectives

RSCOs – Residential Soil Cleanup Objectives

RSO- Remedial System Optimization

SAC- State Assistance Contract

SACM - Suspect Asbestos Containing Material

SCG- Standards, Criteria, and Guidelines

SCO- Soil Cleanup Objective

SEMS - Superfund Enterprise Management System (FKA CERCLIS)

SHPO - State Historic Preservation Office/Officer

SHWS - State Hazardous Waste Site

SMP- Soil Management Plan

SOP- Standard Operating Procedures

SOW- Statement of Work

FTTS- FIFRA/TSCA Tracking System	**SPCC** - Spill Prevention Control and Countermeasure
FWS - Fish and Wildlife Service	**SPDES** - State Pollution Discharge Elimination System
GIS - Geographic Information Systems	**SQG** - Small Quantity Generator
HASP- Health and Safety Plan	**SSD**- Sub-slab Depressurization
HREC – Historic Recognized Environmental Condition	**SVE** - Soil Vapor Extraction
HSWDS - Hazardous Waste Disposal Site	**SVI**- Soil Vapor Intrusion
HVAC - Heating Ventilation and Air Conditioning	**SVOC** - Semi volatile Organic Compound
IC- Institutional Control	**SWF/LF** - Solid Waste Facility/Landfill
ICIS - Integrated Compliance Information System	**SWRCY** - Registered Recycling Facility List
IRM - Interim Remedial Measure	**TAL**- Target Analyte List
ISCOs – Industrial Soil Cleanup Objectives	**TCL**- Target Compound List
LBP - Lead-Based Paint	**TCE** - Trichloroethylene
LNAPL- Light Non-Aqueous Phase Liquid	**TCLP** - Toxicity Characteristic Leachate Procedure
LQG - Large Quantity Generator	**TRIS** - Toxic Chemical Release Inventory System
LTANK - Leaking Tank	**TSCA** - Toxic Substance Control Act
LUST - Leaking Underground Storage Tank	**TSDF** - Treatment, Storage and Disposal Facility
MOSF - Major Oil Storage Facility	**TurnKey** - TurnKey Environmental Restoration, LLC
MSDS - Material Safety Data Sheets	**USCOs** – Unrestricted Soil Cleanup Objectives
MTBE - Methyl Tertiary Butyl Ether	**USDA** - United States Department of Agriculture
NA - Not Available/Applicable	**USEPA** - United States Environmental Protection Agency
NPDES - National Pollutant Discharge Elimination System	**USGS** - United States Geological Survey
NPL - National Priorities List	**UST** - Underground Storage Tank
NRCS - Natural Resource Conservation Service	**VCP** - Voluntary Cleanup Program
NYCRR- New York Codes, Rules, and Regulations	**VEC** - Vapor Encroachment Condition
NYSDEC - New York State Department of Environmental Conservation	**VOC** - Volatile Organic Compound

1.0 EXECUTIVE SUMMARY

The following details the findings of TurnKey relative to identifying RECs for 8 Saint Louis Place, Buffalo, Erie County, New York (Site).

1.1 General Information

TurnKey has performed a Phase I ESA of the Site in conformance with the scope and limitations of ASTM Practice E 1527-13 and the protocols required by the Client. This section summarizes the findings of the environmental professional relative to the Site. The reader is encouraged to read the entire report.

1.2 Site Description

The Site is located in a highly developed residential and commercial area of the City of Buffalo, New York (see Figure 1). As shown on Figure 2, the Site is currently utilized as a parking lot with asphalt paving.

The Site consisting of one parcel totaling 0.23-acres has access to municipal sanitary sewer, electric, natural-gas and public water. The Site is further described in the table below:

Number	Street	Tax ID No.	Current Owner	Current Use
8	Saint Louis Place	11.28-8-7.1	Main St. Louis LP	Parking lot

1.3 Data Gaps

The following data gaps[1] were identified in completion of this inquiry.

Type of Data Gap	Details of Data Gap	Sources Consulted	Significance
Historical Information	Historical information for the Site was not available at five-year intervals.	City directories, aerial photographs, Sanborn maps, topographic maps and municipal information.	This data gap did not significantly limit TurnKey's ability to provide an opinion on RECs related to the Site.
Abstract of Title	The abstract of title was not available for review at the time of report preparation.	Current property owner (i.e., user of this report).	This data gap did not significantly limit TurnKey's ability to provide an opinion on RECs related to the Site.
Site Reconnaissance	Snow cover hindered observations at the time of the Site reconnaissance. In addition, TurnKey was unaccompanied at the time of the Site visit thus property boundaries were approximated.	Site reconnaissance	This data gap did not significantly limit TurnKey's ability to provide an opinion on RECs related to the Site.

1.4 Environmental Report Summary

1.4.1 Summary of Site Reconnaissance Potential Concerns

No environmental concerns were observed at the time of TurnKey's site reconnaissance; however, the following should be noted:

- Miscellaneous debris (general refuse) and a small pile of building debris (i.e., brick, concrete and clay tile) were noted on the southwestern portion of the Site with no obvious concerns (staining, odors, etc.) noted proximate to the materials.
- Several depressions were noted within the asphalt paved areas of the Site. TurnKey suspects that such are associated with settling backfill material in former building areas. No obvious concerns (staining, odors, etc.) were noted proximate to the depressions.

[1] A data gap is defined by 40 CFR 312.10 as "a lack of or inability to obtain information required by the standards and practices" of preparation of this document "despite good faith efforts by the environmental professional" or others to gather such information.

1.4.2 Summary of Historic Uses

Approximate Years	Reported or Suspected Use	Owner/Occupant
At least 1889 to after 1986	The Site was developed with former buildings including residences, private garages and/or out-buildings.	George Steffan and other individual owners/occupants.
After 1986 to current	The site is used as a parking lot.	Past owners: Linda Priebe, and Jason Roberts and Cheryl DiMatteo Current Owner: Main St. Louis LP

1.4.3 Regulatory Information

Site Listings

No regulatory listings were identified for the Site.

Adjacent Property Listings

Adjacent Database Listings	Address/Name	Summary
RCRA NonGen/NLR, FINDS, ECHO, NY Manifest	9-11 St. Louis Pl./Restoration Works Inc.	Restoration Works Inc. is listed as a RCRA non-generator of hazardous waste with no reported violations. This property is also listed in the FINDS, ECHO, and NY Manifest databases.

Nearby Properties

Additional regulatory listings were identified for nearby properties. Brief summaries of the relevant listings are provided in the table below.

Nearby Database Listings	Address/Name	Summary
EDR Hist Cleaner	401 Franklin St./Allasen Diab M. Co. Rug Cleaners	Allasen Diab M. Co. Rug Cleaners is listed as an EDR historic carpet and rug cleaner from at least 1964 through at least 1975.
EDR Hist Auto	401 Franklin St./Fierle Bros. Auto Repairs/Rex Garage	This property is listed as an EDR historic automobile repairing operation and gasoline and oil service station from at least 1935 through at least 1946.
CORRACTS, RCRA-CESQG, PADS, US Airs, NY Manifest	817 Washington St./Century Centre I	Century Centre I is listed in the USEPA RCRA Corrective Action Report. This facility is assigned a low corrective action priority in 1994. This facility is also listed as a RCRA CESQG of hazardous waste. A written informal violation was reported on January 27, 1997 and compliance was achieved February 11, 1997. In addition, this property is

		listed in the PADS, US Airs, and NY Manifest databases.
NY Brownfields	791 Washington St./Former TRICO Plant	The former TRICO Plant is registered in the BCP as Site Number C915281. The NYSDEC notes that a RI was completed in December 2016 analyzing for VOCs, SVOCs, PCBs, pesticides, herbicides, metals, and cyanide. NYSDEC also notes that sub-slab vapor is limited in nature and is not expected to exist off-site. Direct soil contact and contaminated drinking water are reported as not likely.

Numerous regulatory listings were identified for nearby properties located within the search radii. None of the listings associated with nearby properties suggested a specific environmental concern at the Site.

1.4.4 Interviews/Questionnaires

The current property owner completed TurnKey's Environmental Questionnaire; no environmental concerns were identified for the Site. Similarly, representatives of the City of Buffalo Building, Fire and Assessors offices are unaware of environmental concerns associated with the Site.

1.5 Report Findings

Where applicable for the Site, the following is a list of RECs, CRECs, HRECs, and de minimis conditions. Non-scope considerations are also provided.

RECs

Per ASTM E1527, an REC is the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment.

TurnKey's ESA did not reveal RECs for the Site.

Controlled RECs

Per ASTM E1527, a CREC is a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls).

TurnKey's ESA did not reveal CRECs for the Site.

Historic RECs

Per ASTM E1527, a HREC is a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls). For example, a spill that has been remediated to the satisfaction of the appropriate regulators would be considered a HREC.

TurnKey's ESA did not reveal HRECs for the Site.

De-minimis Conditions

In accordance with ASTM E-1527, de-minimis conditions are conditions that generally do not present a threat to human health or the environment and 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 conditions are neither RECs nor CRECs.

TurnKey revealed the following de-minimis conditions for the Site:

- The minimal amount of general refuse and building debris noted at the Site are considered de-minimis conditions as no obvious concerns (staining, odors, etc.) were noted proximate to the materials. Such should be segregated and properly disposed of off-site.
- The depressions noted within the asphalt parking area of the Site are considered de-minimis as TurnKey suspects that such are associated with settling backfill material in former building areas as opposed to an environmental concerns such as a tank. Further, no obvious concerns (staining, odors, etc.) were noted proximate to the depressions.

Non-Scope Considerations

Per ASTM E1527-13, non-scope considerations are described as ancillary observations during performance of the on-site investigation. Non-scope considerations are not considered RECs under ASTM E1527, but may represent health or environmental issues impacting the Site and/or property value.

TurnKey's ESA did not reveal non-scope considerations for the Site.

1.6 Opinion

Based on the information reviewed as part of this assessment, TurnKey does not recommend further environmental work at this time.

2.0 INTRODUCTION

2.1 Purpose

The primary purpose of this assessment was to provide Legacy Development with sufficient information about the potential environmental risks associated with the Site.

A secondary purpose of this study was to document the inquiry of the environmental professional for all appropriate inquiries for the Site. Specifically, this document is intended to provide the "all appropriate inquiries" for the purposes of CERCLA Section 101(35)(B). Such is applicable to persons seeking to qualify for: (i) the innocent landowner defense pursuant to CERCLA Sections 101(35) and 107(b)(3); (ii) the bona fide prospective purchaser liability protection pursuant to CERCLA Sections 101(40) and 107(r); and (iii) the contiguous property owner liability protection pursuant to CERCLA Section 107(q). This report was not intended as part of the Site characterization and assessment with use of a grant awarded under CERCLA Section 104(k)(2)(B). More specifically, the scope is intended to identify conditions indicative of releases or threatened releases of hazardous substances in, on, or at the Site.

2.2 Scope of Work

The scope of work is intended to identify RECs at the Site, including the following tasks:

A) Review of information provided by the User of this Report regarding commonly known or reasonably available information about the Site.
B) Interviews with past and present owners, operators and occupants (if available).
C) Review of historical sources of information documenting the Site's use.
D) Review of Federal, State, tribal and local government records.
E) A visual inspection of the Site and adjoining properties (to the extent possible).
F) Preparation of this written report.

2.3 Significant Assumptions

No significant assumptions were made during completion of this study other than as identified Section 2.4.

2.4 Limitations and Exceptions

2.4.1 Limitations

To the extent of our knowledge, the information contained in this Report is true and accurate. TurnKey personnel have exercised due diligence in the compilation of the information contained herein appropriate to environmental professionals engaged in investigations of this nature. TurnKey makes no guarantees regarding the accuracy of information gained from other sources.

This Phase I ESA is based on current and historical information reviewed by TurnKey and their Site inspection. This Report is not to be considered an environmental audit of the Site or a complete environmental investigation of the Site. Further, the purpose of this assessment is not to proclaim a property is devoid of environmental impact but rather to identify RECs, as defined above.

This Phase I ESA makes no warranties nor implies any liability regarding:

1. Site specific practices and/or disposal methods of the past or future owners.
2. 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.
3. Unreported spills.
4. Practices, waste disposal, environmental concerns and/or modifications to waste site indexes after the date on this Report.
5. Site groundwater or soil conditions.
6. Accuracy or completeness of information supplied to TurnKey by others.
7. Environmental conditions in areas not practically or safely accessible.
8. Accuracy of previous studies (if any) provided to TurnKey.

This Report is also subject to any and all limitations defined within ASTM E1527-13. This includes, but is not limited to, the limitation that this Report is intended to identify environmental conditions at a specific time and is only valid for a period of six months from the date of issuance.

The principles defined within ASTM E1527-13, and followed within this study, include the following.

- This practice is intended to reduce, but not eliminate, uncertainty regarding the potential for RECs in connection with a property.
- All appropriate inquiry does not mean an exhaustive assessment of a clean property. One of the purposes of this practice is to identify a balance between limiting costs/time and the reduction of uncertainty about unknown conditions.
- The level of inquiry is variable and depends on the type of property, risk level of the user and information developed in the course of the inquiry.
- Subsequent environmental assessments should not be used as standards to evaluate the appropriateness of prior inquiries based on hindsight, new information or new techniques.

2.4.2 User Responsibilities

The following information is the responsibility of the user and not of the environmental professional. This information may be provided by the user to the environmental professional for use in the final opinion of the all appropriate inquiry. If the information is not provided by the user, the environmental professional's ability to render such an opinion may be hindered and identified as a data gap.

- Searches for environmental cleanup liens against the subject property that are filed or recorded under any Federal, State, tribal, or local law, as required by 40 CFR Section 312.25.
- Assessments of any specialized knowledge or experience on the part of the landowner, as required by 40 CFR Section 312.28.
- An assessment of the relationship of the purchase price to the fair market value of the subject property, if the property was not contaminated, as required by 40 CFR Section 312.29.
- An assessment of commonly known or reasonably ascertainable information about the subject property, as required by 40 CFR Section 312.30.

2.4.3 User Protections

Persons claiming the liability protections under CERCLA must meet the statutory requirements of one of the following landowner liability protections. [It should be noted that the user must also satisfy certain continuing obligations outside the scope of this Phase I Environmental Assessment, as required by CERCLA].

- The innocent landowner defense pursuant to CERCLA Sections 101(35) and 107(b)(3).
- The bona fide prospective purchaser liability protection pursuant to CERCLA Sections 101(40) and 107(r).
- The contiguous property owner liability protection pursuant to CERCLA Section 107(q).

2.5 Deviations

There were no deviations from the ASTM 1527-13 standard during the completion of this study except that a regulatory file review was not completed. The ASTM 1527-13 standard indicates that completion of a regulatory file review for Site and adjacent property regulatory listings is at the discretion of the Environmental Professional. In this case, completion of a regulatory file review was not completed by TurnKey as: regulatory listings were not identified; completion of the file review was not anticipated to provide new or significant information; or records were not considered reasonably ascertainable in the timeframe of the report deliverable.

2.6 Special Terms and Conditions

The work was completed in accordance with TurnKey's proposal and associated terms and conditions dated March 15, 2018.

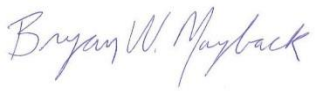
2.7 Reliance, Certification, and Declaration

This report was prepared for the exclusive use of Legacy Development their respective affiliates and subsidiaries, and all successors and assigns thereof. Any other use, or using this Report in a fashion in which it was not intended, is at the sole risk of the user. No other party may rely on this Report unless expressly authorized in writing by TurnKey. Reliance may only be granted upon written consent and is subject to those same terms and conditions as expressed in the proposal dated March 15, 2018.

We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in 40 CFR 312.10. We have the specific qualifications based on education, training, and experience to assess a property of the nature,

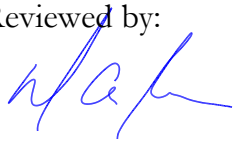
history and setting of the Site. We have developed and performed the all-appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Prepared by:



Bryan Mayback
Senior Project Scientist

Reviewed by:



Michael A. Lesakowski
Principal

3.0 SITE/VICINITY DESCRIPTION

3.1 Location and Legal Description

The Site is located in Buffalo, New York and consists of one tax parcel legally described as Parcel No. 111.22-8-7.1.

3.2 Activity/Use Limitations

TurnKey is not aware of any institutional controls or activity/use limitations imposed against the referenced Site.

3.3 Site and Vicinity Description

The Site is located in a highly developed residential and commercial area of the City of Buffalo, New York (see Figure 1). As shown on Figure 2, the Site is currently utilized as a parking lot with asphalt paving.

The Site consisting of one parcel totaling 0.23-acres has access to municipal sanitary sewer, electric, natural-gas and public water. The Site is further described in the table below:

General Site Information	
Site Address	8 Saint Louis Place
Municipality, County, State	Buffalo, Erie County, New York
Current Site Use	Parking lot
Fronting Streets	Saint Louis Place
Site Size	0.23-acres (per municipal information)
Site Topography	Generally level at grade.
General Site Elevation (feet above mean sea level)	635
Nearest Water Body	Lake Erie located approx. 1.1 miles southwest of the Site
Improvements	Asphalt paved areas

3.4 Current Use of Property

The Site, as further described below, is currently used for vehicle parking.

Number	Street	Tax ID No.	Current Owner	Current Use
8	Saint Louis Place	111.22-8-7.1	Main St. Louis LP	Parking lot

3.5 Adjoining Property Information

The adjacent properties were visually inspected from the Site at the time of the Site reconnaissance. The surrounding property uses include the following:

Direction	Current Use	Apparent Past Use	Comments/Concerns
North	Residential	Residential	None
South:	Residential	Residential	
East:	Residential and commercial (former garage and shop)	Residential and commercial	
West:	Residential and commercial (law office)	Residential	

4.0 USER PROVIDED INFORMATION

As required under 40 CFR 312, those seeking liability protection under CERCLA, for which this Report is prepared, must provide the environmental professional certain information and documentation. TurnKey requested information from Mr. Frank Chinnici of Legacy Development, representing the User, with responses to that inquiry as follows:

4.1 Environmental Liens

According to Mr. Chinnici, there are no environmental cleanup liens against the Site that are filed or recorded under federal, tribal, state or local law.

4.2 Activity Use Limitations

According to Mr. Chinnici, there are no engineering controls, land use restrictions or institutional controls in place, filed or recorded under federal, tribal, state or local law.

4.3 Specialized knowledge or experience

Mr. Chinnici does not have specialized knowledge or experience related to the Site or nearby properties.

4.4 Purchase Price

Mr. Chinnici indicated that the purchase price paid or being paid for the property reasonably reflects the fair market value of the property.

4.5 Commonly Known or Reasonably Ascertainable Information

Mr. Chinnici is not aware of commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases at the Site.

4.6 Obvious Indicators

Mr. Chinnici is not aware of any obvious indicators that point to the presence or likely presence of contamination at the property.

Appendix G includes the completed user questionnaire.

5.0 RECORDS REVIEW

5.1 Standard Environmental Records Sources

Federal and state environmental regulatory information provided by Environmental EDR was reviewed at the radii defined in 40 CFR 312.26 (see Appendix A). Any sites unplottable by EDR were also reviewed, to the extent practical based on the site name and address, to assess whether they are also present within their appropriate radii. Any relevant listings such as those for the Site or any adjacent sites are included in the following table. Refer to Appendix A for complete acronym definitions.

Site Listings

No regulatory listings were identified for the Site.

Adjacent Property Listings

Adjacent Database Listings	Address/Name	Summary
RCRA NonGen/NLR, FINDS, ECHO, NY Manifest	9-11 St. Louis Pl./Restoration Works Inc.	Restoration Works Inc. is listed as a RCRA non-generator of hazardous waste with no reported violations. This property is also listed in the FINDS, ECHO, and NY Manifest databases.

Nearby Properties

Additional regulatory listings were identified for nearby properties. Brief summaries of the relevant listings are provided in the table below.

Nearby Database Listings	Address/Name	Summary
EDR Hist Cleaner	401 Franklin St./Allasen Diab M. Co. Rug Cleaners	Allasen Diab M. Co. Rug Cleaners is listed as an EDR historic carpet and rug cleaner from at least 1964 through at least 1975.
EDR Hist Auto	401 Franklin St./Fierle Bros. Auto Repairs/Rex Garage	This property is listed as an EDR historic automobile repairing operation and gasoline and oil service station from at least 1935 through at least 1946.
CORRACTS, RCRA-CESQG, PADS, US Airs, NY Manifest	817 Washington St./Century Centre I	Century Centre I is listed in the USEPA RCRA Corrective Action Report. This facility is assigned a low corrective action priority in 1994. This facility is also listed as a RCRA CESQG of hazardous waste. A written informal violation was reported on January 27, 1997 and compliance was achieved

		February 11, 1997. In addition, this property is listed in the PADS, US Airs, and NY Manifest databases.
NY Brownfields	791 Washington St./Former TRICO Plant	The former TRICO Plant is registered in the BCP as Site Number C915281. The NYSDEC notes that a RI was completed in December 2016 analyzing for VOCs, SVOCs, PCBs, pesticides, herbicides, metals, and cyanide. NYSDEC also notes that sub-slab vapor is limited in nature and is not expected to exist off-site. Direct soil contact and contaminated drinking water are reported as not likely.

In addition to the nearby properties listed above, several additional sites located proximate to the Site are listed on one or more environmental databases. However based on TurnKey's review, each of these additional sites falls in one or more of the following categories:

- It is listed on databases that indicate a potential for, but not an actual documented current or historical release (e.g., RCRA small quantity generator or large quantity generator; registered chemical bulk storage or petroleum bulk storage sites). As such, these sites are not considered to pose an REC at the Site due to absence of a documented release.
- It is located greater than one-eighth mile from the Site, and is not considered an REC based on the distance from the Site.
- It is present at a location that is not expected to pose potential for impact on the Site due to topography and likely groundwater flow direction, and is not considered an REC based on unlikelihood for impacts associated with migration of contaminants onto the Site.

The discussion included above regarding adjacent and surrounding properties is based on information supplied to TurnKey as well as observations of nearby properties at the time of the Site reconnaissance. Further study would be required to positively confirm whether the Site has been impacted by nearby properties. It is also important to note that the environmental history and status of nearby properties, real or perceived, can affect the valuation of the target property.

5.2 Additional Environmental Record Sources

To augment the information provided by EDR, a FOIA request was forwarded to the NYSDEC on March 16, 2018 for information concerning the Site (see Appendix B). All responses have yet to be received from the NYSDEC. Should the NYSDEC provide additional information for the Site which identifies a currently unknown REC, an addendum to this report will be issued.

TurnKey also completed a search on the NYSDEC website of readily available records for the Site, including an Environmental Site Database Search for spills, remedial sites and bulk storage facilities. A search of the USEPA Envirofacts website was also completed. No records involving the Site were identified.

5.3 Physical Setting Sources

Figure 1 shows the Site on an undated USGS Topographic Map, Buffalo NE Quadrangle. The Site is located in a highly developed residential and commercial area. Due to extensive development in the area of the Site, individual structures are not shown on the map. The Site is located approximately 635 feet above mean sea level.

Groundwater flow is likely to the southwest toward Lake ErieLocal groundwater flow, however, may be influenced by subsurface features, such as excavations, utilities, and localized fill-conditions.

5.4 Historical Use

The historical use of the Site has been researched through review of previous studies, historic Sanborn maps, historic aerial photographs, municipal records, historic topographic maps, and/or other reasonably obtainable documents. The following sections summarize TurnKey's research.

5.4.1 Historic Aerial Photographs

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 obtained online through http://historicaerials.com/ for additional historical information relative to the Site and

surrounding area. It should be noted that visual observations were limited on some aerial photographs due to poor quality.

YEAR	OBSERVATIONS
1959-1966	
Site	The Site appears developed with an individual former structure presumed to be residential.
North	Residential and commercial
South	Residential and commercial
East	Residential and commercial
West	Residential and commercial
1995-2013	
Site	The aforementioned former structure appears is no longer present. The Site appears vacant and utilized as a parking lot, which is consistent with the current use.
North	Residential and commercial
South	Residential and commercial
East	Residential and commercial
West	Residential and commercial

5.4.2 Historical Sanborn Maps

Sanborn maps serve to reveal former buildings, building uses, and man-made works such as canals, lagoons and railroads that may have been altered or may no longer be in existence. Historic addresses identified for the Site were identified as 8-12 Saint Louis Place (formerly known as North Pearl Street and Pearl Place). The following table summarizes the maps. Appendix C includes copies of the Sanborn Maps provided by EDR.

YEAR	OBSERVATIONS
1889-1951	
Site	The Site appears to be developed with two former residential structures. Individual unidentified structures/outbuildings presumed by TurnKey to be garages/sheds are also shown on-Site. Additions to the residential structures appear in at least 1899.
North	Residential
South	Residential
East	Residential
West	Residential
1981-1986	
Site	The majority of the Site appears to be vacant. An individual private automobile garage remains on the southwest portion of the Site.
North	Residential

South	Vacant and residential.
East	Residential and commercial (one structure identified as a heating contractor's garage and shop).
West	Residential and commercial

5.4.3 Historical City Directories

Historic city directories, dated between 1925 and 2008, were reviewed (generally in five-year intervals) through an EDR database search for additional information regarding the Site. Appendix D includes a copy of the abstract report.

Year	Address	Listing(s)
1925-1960	10-12 St. Louis Pl./12 N. Pearl St./12 Pearl Pl.	Individual residential tenants
1964	10-12 St. Louis Pl.	Individual residential tenants
1970	10-12 St. Louis Pl.	Individual residential tenants

5.4.4 Historical Topographic Maps

Due to the nature of the Site and other historical sources consulted, historic topographic maps were not reviewed as part of this assessment.

5.4.5 Municipal Records

Records readily available at the City of Buffalo municipal offices (Assessor, Building and Fire Departments) as well as records available online from the Erie County GIS were reviewed for additional information relative to the Site. TurnKey also researched historic addresses identified for the Site through review of Sanborn maps. Note that a FOIL was submitted to the City of Buffalo as required to access their records. The following summarizes municipal records provided to TurnKey at the time of this assessment; copies of the pertinent records are included in Appendix E.

- The Site, Tax ID No. 111.22-8-7.1, measures 0.23-acres and is currently owned by Main St. Louis LP.
- Past owners were identified as Jason Roberts, Cheryl DiMatteo, Linda Priebe, and George Steffan.
- The Site is currently classified as commercial vacant land with minor improvements utilized as a parking lot.

- The Site has access to natural-gas, municipal sanitary sewer, public water and electric.

TurnKey interviewed the representatives of the Building Permits and Assessors office as well as Captain Ron Barrett of the Buffalo Fire Department on March 21, 2018; the representatives interviewed had no knowledge of any environmental concerns associated with the Site.

5.4.6 Site History Provided by Site Contact

According to the site contact, the Site is currently and has historically been vacant land with use as a parking lot.

5.4.7 Abstract of Title

Abstract of Title information was not provided to TurnKey.

5.4.8 Previous Assessments

No previous studies involving the Site were provided to TurnKey.

5.4.9 Summary of Historic Uses

Approximate Years	Reported or Suspected Use	Owner/Occupant
At least 1889 to after 1986	The Site was developed with former buildings including residences, private garages and/or out-buildings.	George Steffan and other individual owners/occupants.
After 1986 to current	The site is used as a parking lot.	Past owners: Linda Priebe, and Jason Roberts and Cheryl DiMatteo Current Owner: Main St. Louis LP

5.5 Environmental Liens

TurnKey is not aware of any formal environmental liens, enforcement action, civil, judicial or administrative enforcement cases in connection with the Site.

6.0 SITE RECONNAISSANCE

6.1 Methodology and Limiting Conditions

A visual review of the Site was completed to document Site conditions and identify potential RECs. The presence of snow cover hindered observations of ground surfaces at the time of the Site reconnaissance.

6.2 General Site Setting

Mr. Chad Schuster of TurnKey performed the Site reconnaissance on March 21, 2018. TurnKey was unaccompanied during the site visit.

Appendix F includes photographs taken during the Site reconnaissance.

6.3 Site Visit Findings

6.3.1 Current On-Site Operations

The Site is vacant with asphalt pavement utilized as a parking lot.

6.3.2 Storage Tanks

No evidence indicative of an AST or UST was observed at the time of the Site reconnaissance.

6.3.3 Hazardous or Regulated Materials

No hazardous or regulated materials were observed at the time of the Site reconnaissance.

6.3.4 Solid, Hazardous or Regulated Wastes

No hazardous/regulated wastes are generated on-Site at this time.

6.3.5 Miscellaneous Debris/Stored Materials

A small pile of building debris (i.e., brick, concrete and clay tile) along with scattered general refuse (i.e., plastic) were noted on the northwestern portion of the Site. No concerns (staining, odors, etc.) were noted proximate to the building debris or general refuse.

6.3.6 Fill

TurnKey observed no visible evidence of fill activity at the time of the Site reconnaissance. However, TurnKey is aware of former buildings at the Site thus it is possible that fill materials from unknown origins were brought to the Site to bring former building areas to grade.

6.3.7 Suspected Former Building Foundation

Concrete in the southwestern corner of the Site is believed by TurnKey to be associated with a former building (a private garage based on historical records). No concerns (staining, odors, etc.) were noted proximate to the suspected former building foundation at the time of the site visit.

6.3.8 Asphalt Depressions

Multiple depressions were noted within the asphalt parking area of the Site. TurnKey suspects that such are associated with settling backfill material in former building areas. No obvious concerns (staining, odors, etc.) were noted proximate to the depressions.

6.3.9 Staining/Spillage and Pools of Liquid

None observed.

6.3.10 Stressed and/or Dead Vegetation

None observed.

6.3.11 Odors

None noted.

6.3.12 Unidentified Substance Containers

None observed.

6.3.13 Wastewaters

The Site has access to the municipal sanitary sewer system.

6.3.14 Potable Water Supply/Wells

The Site has access to the municipal water supply.

6.3.15 Drains and Sumps

No drains or sumps were observed during the Site reconnaissance.

6.3.16 Pits, Ponds and Lagoons

None observed.

6.3.17 Septic System

None observed.

6.3.18 PCBs

Utility-owned pole-mounted transformers were noted along property borders. No concerns (staining, odors, etc.) were noted proximate to the transformers at the time of the Site visit.

6.3.19 Previous Intrusive Work

No evidence of previous intrusive work was observed at the time of the Site reconnaissance.

6.3.20 Adjacent Property Use

Adjacent properties are currently utilized for residential and commercial purposes. No concerns (staining, odors, obvious spills, etc.) were noted on-Site in connection with current adjacent operations.

6.4 Summary of Site Reconnaissance Potential Concerns

No environmental concerns were observed at the time of TurnKey's site reconnaissance; however, the following should be noted.

- Miscellaneous debris (general refuse) and a small pile of building debris (i.e., brick, concrete and clay tile) were noted on the southwestern portion of the Site with no obvious concerns (staining, odors, etc.) noted proximate to the materials.
- Several depressions were noted within the asphalt paved areas of the Site. TurnKey suspects that such are associated with settling backfill material in former building areas. No obvious concerns (staining, odors, etc.) were noted proximate to the depressions.

7.0 INTERVIEWS

7.1 Site Owner

An Environmental Questionnaire requesting information on any known environmental hazards or impacts at the Site was completed by the current property owner, Mr. Frank Chinnici of Legacy Development. Appendix G includes the completed questionnaire. The following summarizes the information provided by Mr. Chinnici:

- The Site is currently and has historically been vacant land with a parking lot.
- The intended future use of the Site is a residential development.
- Mr. Chinnici is unaware of any pending, threatened or past litigation or administrative proceedings relevant to hazardous substances or petroleum products in, on or from the Site. Further, Mr. Chinnici is unaware of any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products related to the Site.

7.2 Municipal Interview

As indicated above, TurnKey interviewed the representatives of the Building Permits and Assessors office as well as Captain Ron Barrett of the Buffalo Fire Department on March 21, 2018; the representatives interviewed had no knowledge of any environmental concerns associated with the Site.

7.3 Former Site Owner/Operator

Former owners/operators were not interviewed as part of this assessment.

8.0 OTHER ENVIRONMENTAL CONSIDERATIONS

Other environmental considerations are discussed below. Such include non-scope considerations, described under ASTM E1527-13 as ancillary conditions that are typically outside the standard Phase I scope of practice. Non-scope considerations, such as asbestos, lead, radon, wetlands and mold, are not considered RECs under ASTM E1527-13, but may represent health or environmental issues impacting the Site and/or property value.

8.1 Wetlands and Flood Zones

The EDR regulatory database includes general information on wetlands and flood zones. No wetland or flood zone areas were identified on-site or adjacent to the Site.

8.2 Vapor Encroachment Conditions

This assessment included review of the regulatory database discussed in Section 6.1 in relation to the ASTM E2600-10 Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions.

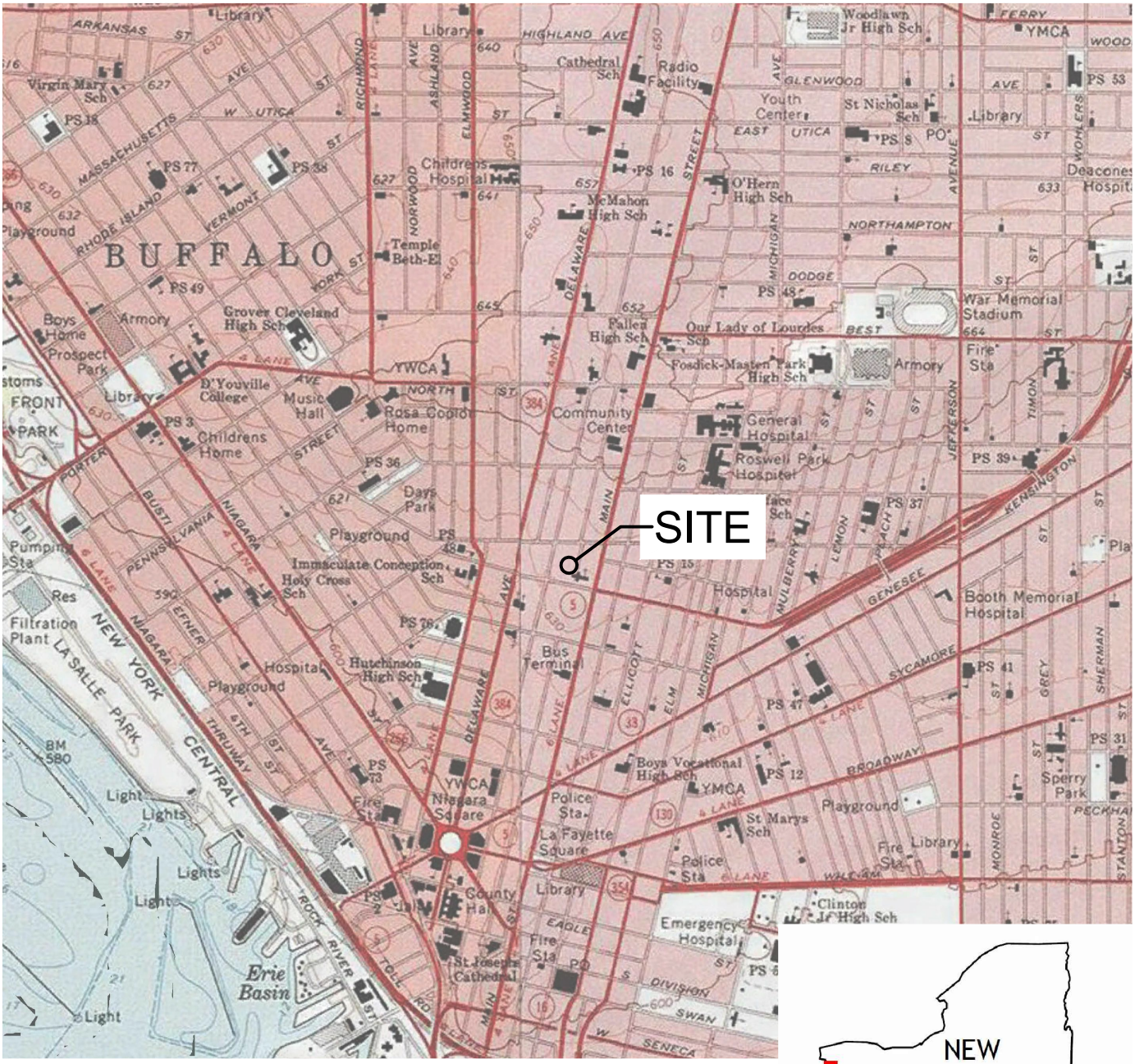
If soil or groundwater is contaminated with a volatile compound such as gasoline or solvents, that contaminant can migrate through the soil pore space and end up in the air inside of buildings, especially within basement areas. Soil vapors do not necessarily migrate along groundwater flow paths; they can also move up hydraulic gradients and can extend beyond a groundwater plume. The ASTM standard named this a VEC, which is a more recent environmental concern and there have been a significant number of sites where vapor intrusion has been discovered. The state and federal environmental regulators have "reopened" numerous spill and waste sites in order to assess whether vapor encroachment is a concern.

None of the information reviewed by TurnKey suggested a potential VEC at the Site.

FIGURES

F:\CAD\TurnKey\Legacy Development\8 St Louis Pl\Figure 1 - Site Location and Vicinity Map.dwg

FIGURE 1



TurnKey Environmental Restoration, LLC
2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0635

PROJECT NO.: T0395-018-001

DATE: MARCH 2018

DRAFTED BY: CMS

SITE LOCATION AND VICINITY MAP

PHASE I ENVIRONMENTAL SITE ASSESSMENT

8 SAINT LOUIS PLACE
BUFFALO, NEW YORK

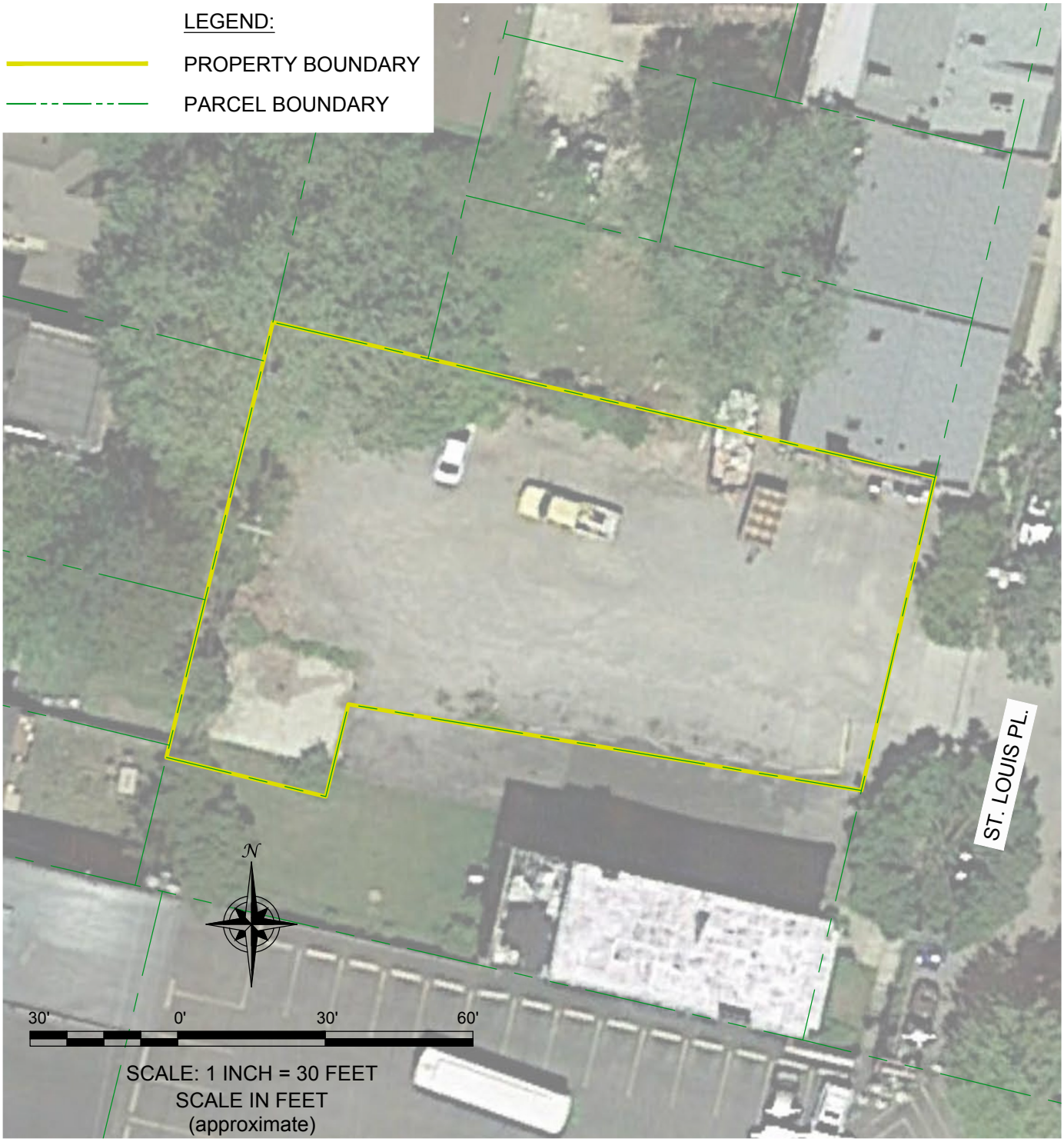
PREPARED FOR

LEGACY DEVELOPMENT

DISCLAIMER:
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F:\CAD\TurnKey\Legacy Development\8 St Louis Pl\Figure 2 - Site Plan (Aerial).dwg

FIGURE 2



TURNKEY ENVIRONMENTAL RESTORATION, LLC

2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0635

PROJECT NO.: T0395-018-001

DATE: MARCH 2018

DRAFTED BY: CMS

SITE PLAN (AERIAL)

PHASE I ENVIRONMENTAL SITE ASSESSMENT

8 SAINT LOUIS PLACE
BUFFALO, NEW YORK

PREPARED FOR

LEGACY DEVELOPMENT

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APPENDIX A

ENVIRONMENTAL DATABASE REPORT

8 St. Louis Pl.
8 St. Louis Pl.
Buffalo, NY 14202

Inquiry Number: 5223889.2s
March 19, 2018

The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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Thank you for your business.
Please contact EDR at 1-800-352-0050
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 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

8 ST. LOUIS PL.
BUFFALO, NY 14202

COORDINATES

Latitude (North):	42.8962360 - 42° 53' 46.44''
Longitude (West):	78.8724190 - 78° 52' 20.70''
Universal Tranverse Mercator:	Zone 17
UTM X (Meters):	673715.1
UTM Y (Meters):	4751273.0
Elevation:	634 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	5937939 BUFFALO NE, NY
Version Date:	2013
Northwest Map:	5938774 BUFFALO NW, NY
Version Date:	2013

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20150528, 20150529
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
8 ST. LOUIS PL.
BUFFALO, NY 14202

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
1	RESTORATION WORKS IN	9-11 ST LOUIS PL	RCRA NonGen / NLR, FINDS, ECHO, NY MANIFEST	Higher	55, 0.010, ESE
A2	ALLASEN DIAB M CO RU	401 FRANKLIN ST	EDR Hist Cleaner	Lower	120, 0.023, WSW
A3	REX GARAGE	401 FRANKLIN ST	EDR Hist Auto	Lower	120, 0.023, WSW
A4	CENTER CITY MOPED	385 FRANKLIN ST	EDR Hist Auto	Lower	237, 0.045, SW
A5	DOWD AUTO GLASS CO	392 FRANKLIN ST	EDR Hist Auto	Lower	255, 0.048, WSW
B6	PICOLY GEO DCLO CLNR	41 EDWARD ST	EDR Hist Cleaner	Lower	271, 0.051, South
C7	FABINSKI WALTER AUTO	538 VIRGINIA ST	EDR Hist Auto	Higher	306, 0.058, NE
D8	NELSON HELEN CLO CLN	808 MAIN ST	EDR Hist Cleaner	Higher	318, 0.060, ESE
C9	SHORT HARRY L FILLIN	819 MAIN ST	EDR Hist Auto	Higher	327, 0.062, East
10	LOVETT & PARRIGAN GA	433 FRANKLIN ST	EDR Hist Auto	Higher	353, 0.067, North
B11	CYCLORAMA GARAGE	32 EDWARD ST	EDR Hist Auto	Lower	359, 0.068, SSE
D12	COURIER EXPRESS	795 MAIN ST	RCRA NonGen / NLR, FTTS, HIST FTTS, FINDS, ECHO,...	Higher	366, 0.069, ESE
C13	KOROVESIS GUST CLO C	829 MAIN ST	EDR Hist Cleaner	Higher	378, 0.072, ENE
E14	FRITZ COLLISION SERV	68 EDWARD ST	EDR Hist Auto	Lower	389, 0.074, WSW
C15	TIP TOP HAND LAUNDRY	831 MAIN ST	EDR Hist Cleaner	Higher	396, 0.075, ENE
E16	EDWARDS STREET GARAG	71 EDWARD ST	EDR Hist Auto	Lower	405, 0.077, WSW
E17	EDWARD STREET GARAGE	73 EDWARD ST	EDR Hist Auto	Lower	421, 0.080, WSW
C18	KOROVESIS GUST HAT C	834 MAIN ST	EDR Hist Cleaner	Higher	429, 0.081, ENE
E19	EDWARD STREET AUTO C	75 EDWARD ST	EDR Hist Auto	Lower	437, 0.083, WSW
E20	EDWARD STREET GARAGE	77 EDWARD ST	EDR Hist Auto	Lower	448, 0.085, WSW
E21	EDWARD STREET GARAGE	79 EDWARD ST	EDR Hist Auto	Lower	462, 0.087, WSW
E22	EDWARD STREET GARAGE	81 EDWARD ST	EDR Hist Auto	Lower	480, 0.091, WSW
F23	STAR ENTERPRISE	455 DELAWARE	NY MANIFEST	Lower	489, 0.093, West
F24	DAUCHER LES TEXACO S	455 DELAWARE AVE	EDR Hist Auto	Lower	489, 0.093, West
F25	TEXACO DOWNSTREAM PR	455 DELAWARE AVE	RCRA NonGen / NLR, FINDS, ECHO	Lower	489, 0.093, West
E26	370 FRANKLIN STREET	370 FRANKLLIN STREET	NY UST	Lower	493, 0.093, SW
G27	TONYS SERV STA	34 PEARL ST	EDR Hist Auto	Higher	528, 0.100, NNE
H28	JIMS AUTO REPR	361 FRANKLIN ST	EDR Hist Auto	Lower	538, 0.102, SSW
I29	A S & H CORPORATION	764 MAIN ST	EDR Hist Cleaner	Lower	545, 0.103, SSE
I30	MAIN TACK SERVICE &	767 MAIN ST	EDR Hist Auto	Lower	550, 0.104, SSE
C31	MAIN HAND LAUNDRY	852 MAIN ST	EDR Hist Cleaner	Higher	555, 0.105, NE
F32	AMERICAN LAUNDRY MAC	443 DELAWARE AVE	EDR Hist Cleaner	Lower	556, 0.105, West
F33	NYS DEPT OF ENVIR CO	437 DELAWARE AVE	NY Spills, RCRA NonGen / NLR, FINDS, ECHO, NY...	Lower	561, 0.106, West
F34	NOHIO DISTRIBUTORS I	435 DELAWARE AVE	EDR Hist Auto	Lower	563, 0.107, West
H35	OHILSON ROY AUTO LND	359 FRANKLIN ST	EDR Hist Auto	Lower	570, 0.108, SSW
G36	BUSSI GEO FILLING ST	38 PEARL ST	EDR Hist Auto	Higher	570, 0.108, NNE
J37	MAIN HAND LAUNDRY	854 MAIN ST	EDR Hist Cleaner	Higher	571, 0.108, NE
F38	NIAGARA MOHAWK A NAT	DELAWARE AVE & VIRGI	NY MANIFEST	Lower	601, 0.114, WNW
F39	NATIONAL GRID MH 496	DELAWARE AVE	RCRA-LQG, FINDS, ECHO	Lower	601, 0.114, WNW

adjacent

nearby

nearby

MAPPED SITES SUMMARY

Target Property Address:
8 ST. LOUIS PL.
BUFFALO, NY 14202

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
H40	DANNYS AUTO WASH	357 FRANKLIN ST	EDR Hist Auto	Lower	602, 0.114, SSW
K41	FLYNN'S BAR AND GRIL	815 MAIN STREET	NY Spills	Higher	617, 0.117, ESE
J42	CELLULAR PRODUCTS IN	872 MAIN ST	RCRA NonGen / NLR, FINDS, ECHO, NY MANIFEST	Higher	620, 0.117, NE
I43	MAIN TECK SERVICE &	757 MAIN ST	EDR Hist Auto	Lower	626, 0.119, SSE
I44	FITZSIMMONS BROS CO	755 MAIN ST	EDR Hist Auto	Lower	636, 0.120, SSE
K45	CENTURY CENTRE I	817 WASHINGTON ST	CORRACTS, RCRA-CESQG, PADS, US AIRS, NY MANIFEST	Higher	644, 0.122, East
K46	TRICO PRODUCTS	817 WASHINGTON ST	MN MANIFEST	Higher	644, 0.122, East
K47	TRICO PRODUCTS CORPO	817 WASHINGTON ST	NY UST, NY Spills	Higher	644, 0.122, East
K48	TRICO PRODUCTS	GOODELL & WASHINGTON	NY Spills	Lower	648, 0.123, SE
K49	FORMER TRICO PLANT	791 WASHINGTON STREE	NY BROWNFIELDS	Higher	662, 0.125, ESE
50	EASTMAN MACHINE CO	779 WASHINGTON ST	RCRA-CESQG, US AIRS, FINDS, ECHO, NY MANIFEST	Lower	841, 0.159, SE
51	UNIFORM NAME MAKERS	742 WASHINGTON STREE	NY LTANKS	Lower	846, 0.160, SSE
L52	UNITED IMPORT MOTORS	548 PEARL STREET	NY AST	Lower	877, 0.166, South
53	THE BUFFALO CLUB	388 DELAWARE AVE	NY AST	Lower	886, 0.168, WSW
M54	CHAKRA COMMUNICATION	644 ELLICOTT ST	RCRA-SQG, FINDS, ECHO, NY MANIFEST	Higher	906, 0.172, East
N55	NIAGARA MOHAWK A NAT	W TUPPER ST	NY MANIFEST	Lower	962, 0.182, SSW
N56	NATIONAL GRID MH46 W	W TUPPER ST	RCRA-LQG, FINDS, ECHO	Lower	962, 0.182, SSW
57	DEPT OF COMMUNITY DE	9 CARLTON ST	RCRA NonGen / NLR, FINDS, ECHO	Higher	1004, 0.190, NE
L58	SCHMIDT'S AUTOBODY A	555 PEARL ST	RCRA NonGen / NLR, US AIRS, FINDS, ECHO, NY...	Lower	1006, 0.191, South
59	WESTINGHOUSE ELECTRI	700 ELICOTT SQ BLDG	RCRA NonGen / NLR, FINDS, ECHO, NY MANIFEST	Higher	1015, 0.192, ENE
M60	GREYHOUND	ELLICOTT & OAK STREE	NY LTANKS	Higher	1016, 0.192, East
N61	NIAGARA MOHAWK-A NAT	78 W TUPPER	RCRA NonGen / NLR, FINDS, ECHO, NY MANIFEST	Lower	1030, 0.195, SW
O62	120 W. TUPPER STREET	325 SOUTH ELMWOOD AV	NY UST	Lower	1040, 0.197, West
O63	JOSEPH DAVIS INC	325 S ELMWOOD AVE	RCRA NonGen / NLR, FINDS, ECHO, NY MANIFEST	Lower	1040, 0.197, West
O64	JOSEPH DAVIS INC	325 SOUTH ELMWOOD	NY LTANKS	Lower	1040, 0.197, West
65	ALLENTOWN TRADING CO	553 DELAWARE AVE	NY LTANKS, NY UST	Higher	1070, 0.203, NNW
66	UNIVERSITY AT BUFFAL	77 GOODELL ST	RCRA-CESQG, FINDS, ECHO, NY MANIFEST	Lower	1104, 0.209, ESE
L67	M & V RING CO INC	505 PEARL ST	RCRA NonGen / NLR, FINDS, ECHO, NY MANIFEST	Lower	1115, 0.211, South
L68	PM REFINING INC	505 PEARL ST	RCRA NonGen / NLR, NY MANIFEST	Lower	1115, 0.211, South
L69	SATURN RINGS INC	505 PEARL ST - 5TH F	NY Spills, RCRA NonGen / NLR, FINDS, ECHO, RI...	Lower	1115, 0.211, South
P70	NIAGARA MOHAWK A NAT	W TUPPER AVE & DELAW	RCRA NonGen / NLR, FINDS, ECHO	Lower	1124, 0.213, SW
P71	NIAGARA MOHAWK A NAT	W TUPPER AVE & DELAW	NY MANIFEST	Lower	1124, 0.213, SW
Q72	NOCO MOTOR FUELS S-4	400 VIRGINIA AVE	NY LTANKS, NY UST	Lower	1138, 0.216, WNW
Q73	FAMILY DOLLAR STORE	400 VIRGINIA ST	RCRA-CESQG, FINDS, ECHO	Lower	1138, 0.216, WNW
P74	FPPF CHEMICAL COMPAN	117 W. TUPPER STREET	OH SWRCY	Lower	1188, 0.225, SW
75	NYS CENTER FOR EXCEL	701 ELLICOTT ST	RCRA-LQG, NY MANIFEST	Higher	1273, 0.241, ENE
76	NIAGARA MOHAWK A NAT	325 DELAWARE AVE	NY LTANKS, NY MANIFEST	Lower	1355, 0.257, SW
R77	BENDERSON DEVELOPMEN	584 DELAWARE AVENUE	NY LTANKS	Higher	1442, 0.273, NNW
78	BUFFALO SCHOOL # 76	300 SOUTH ELMWOOD AV	NY LTANKS	Lower	1547, 0.293, WSW

MAPPED SITES SUMMARY

Target Property Address:
8 ST. LOUIS PL.
BUFFALO, NY 14202

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
R79	NYSDEC	600 DELAWARE AVE	NY LTANKS, NY Spills, RCRA NonGen / NLR, FINDS,...	Higher	1602, 0.303, North
S80	275 FRANKLIN STREET	275 FRANKLIN STREET	NY BROWNFIELDS	Lower	1708, 0.323, SSW
S81	BUFFALO DEVELOPMENT	275 FRANKLIN ST	NY ENG CONTROLS, NY INST CONTROL, RCRA NonGen /...	Lower	1708, 0.323, SSW
82	FORMER MOBIL SERVICE	979 MAIN STREET	NY LTANKS, NY ENG CONTROLS, NY INST CONTROL, NY...	Higher	1718, 0.325, NNE
S83	432 PEARL STREET	432 PEARL STREET	NY ENG CONTROLS, NY INST CONTROL, NY BROWNFIELDS	Lower	1775, 0.336, SSW
84	ROSWELL PARK	666 ELM STREET	NY LTANKS	Higher	1800, 0.341, ENE
85	KALEIDA HEALTH	50 HIGH STREET	NY LTANKS, NY Spills	Higher	1968, 0.373, NE
86	250 DELAWARE AVENUE	250 DELAWARE AVENUE	NY BROWNFIELDS	Lower	2004, 0.380, SSW
T87	ROSWELL PARK	ELM AT CARLTON	NY LTANKS	Higher	2071, 0.392, ENE
T88	NYSDOH ROSWELL LOADI	ELM & CARLTON	NY LTANKS	Higher	2072, 0.392, ENE
T89	ROSWELL	ELM AND CARLTON ST	NY LTANKS, NY Spills	Higher	2072, 0.392, ENE
T90	NYSDOH ROSWELL PARK	ELM AND CARLTON STRE	NY LTANKS	Higher	2072, 0.392, ENE
91	KULBACK CONSTRUCTION	DELAWARE AT NORTH	NY LTANKS	Higher	2108, 0.399, North
92	SKYDEC CORP.	251 FRANKLIN STREET	NY LTANKS	Lower	2142, 0.406, SSW
T93	UST @ ROSWELL PRKG G	CARLTON STREET	NY LTANKS	Higher	2151, 0.407, ENE
94	473 EAST DELAVAN INC	161 ELMWOOD AVE	NY LTANKS, NY UST	Higher	2159, 0.409, NW
U95	WESTBROOK 675 DELAWA	675 DELAWARE AVENUE	NY LTANKS	Higher	2196, 0.416, North
V96	GULF SERVICE STATION	1038 MAIN ST	NY LTANKS, NY Spills, RCRA NonGen / NLR, FINDS,...	Higher	2242, 0.425, NNE
V97	19 NORTH STREET	19 NORTH STREET	NY BROWNFIELDS	Higher	2305, 0.437, NNE
V98	A.R.G. TRUCKING CO.	MAIN AND NORTH ST.	NY LTANKS	Higher	2310, 0.438, NNE
V99	NIRELLI'S GULF STATI	1038 MAIN & NORTH	NY LTANKS	Higher	2359, 0.447, NNE
100	BUFFALO GENERAL MEDI	100 HIGH ST	RCRA-LQG, NY LTANKS, NY AST, NY Spills, ICIS, US...	Higher	2375, 0.450, NE
101	BLACK BEAR COMPANY	27-10 HUNTERS POINT	NY LTANKS	Lower	2383, 0.451, WSW
102	SIMON OIL COMPANY	SOUTH ELMWOOD & CHIP	NY LTANKS	Lower	2393, 0.453, SW
U103	SINCLAIR RADIO OF BU	695 DELAWARE AVENUE	NY LTANKS	Higher	2423, 0.459, North
104	295 MARYLAND STREET	295 MARYLAND STREET	NY BROWNFIELDS, NY Spills	Lower	2437, 0.462, West
105	ROSWELL PARK CANCER	MICHIGAN AND HIGH ST	NY LTANKS	Higher	2438, 0.462, ENE
106	BUFFALO GENERAL HOSP	NORTH STREET	NY LTANKS	Higher	2487, 0.471, NE
107	G A KAYSER & SONS IN	327 ELM ST	NY LTANKS, NY UST	Lower	2500, 0.473, SSE
108	E.C.C. #36	10 DAYS PARK	NY LTANKS, NY UST, NY Spills	Lower	2543, 0.482, WNW
109	BUFFALO TIN PLATING	194 OAK ST	CORRACTS, RCRA NonGen / NLR, FINDS, ECHO	Lower	3360, 0.636, South
110	OSMOSE WOOD PRESERVI	980 ELLICOTT STREET	NY SHWS	Higher	3477, 0.659, NNE
111	FOURTH STREET MGP SI	43 CAROLINA STREET	NY SHWS	Lower	4299, 0.814, WSW
112	NIKE BU 09		FUDS	Lower	4590, 0.869, SSE
113	NATIONAL FUEL GAS -	249 WEST GENESEE STR	EDR MGP	Lower	4706, 0.891, SSW
114	4TH STREET SITE	4TH STREET AND TRENT	EDR MGP	Lower	4839, 0.916, SW

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

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

DATABASES WITH NO MAPPED SITES

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

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

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

Federal Delisted NPL site list

Delisted NPL ---------- National Priority List Deletions

Federal CERCLIS list

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

Federal CERCLIS NFRAP site list

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

Federal RCRA non-CORRACTS TSD facilities list

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

Federal institutional controls / engineering controls registries

LUCIS ---------- Land Use Control Information System
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 landfill and/or solid waste disposal site lists

NY SWF/LF ---------- Facility Register

State and tribal leaking storage tank lists

INDIAN LUST ---------- Leaking Underground Storage Tanks on Indian Land

NY HIST LTANKS Listing of Leaking Storage Tanks

State and tribal registered storage tank lists

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

State and tribal institutional control / engineering control registries

NY RES DECL Restrictive Declarations Listing

State and tribal voluntary cleanup sites

NY VCP Voluntary Cleanup Agreements
INDIAN VCP Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

NY ERP Environmental Restoration Program Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

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

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL Delisted National Clandestine Laboratory Register
NY DEL SHWS Delisted Registry Sites
US CDL National Clandestine Laboratory Register

Local Lists of Registered Storage Tanks

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

Local Land Records

NY LIENS Spill Liens Information

LIENS 2 ---------- CERCLA Lien Information

Records of Emergency Release Reports

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

Other Ascertainable Records

DOD ---------- Department of Defense Sites
SCRD DRYCLEANERS ---------- State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR ---------- Financial Assurance Information
EPA WATCH LIST ---------- EPA WATCH LIST
2020 COR ACTION ---------- 2020 Corrective Action Program List
TSCA ---------- Toxic Substances Control Act
TRIS ---------- Toxic Chemical Release Inventory System
SSTS ---------- Section 7 Tracking Systems
ROD ---------- Records Of Decision
RMP ---------- Risk Management Plans
RAATS ---------- RCRA Administrative Action Tracking System
PRP ---------- Potentially Responsible Parties
MLTS ---------- Material Licensing Tracking System
COAL ASH DOE ---------- Steam-Electric Plant Operation Data
COAL ASH EPA ---------- Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER ---------- PCB Transformer Registration Database
RADINFO ---------- Radiation Information Database
DOT OPS ---------- Incident and Accident Data
CONSENT ---------- Superfund (CERCLA) Consent Decrees
INDIAN RESERV ---------- Indian Reservations
FUSRAP ---------- Formerly Utilized Sites Remedial Action Program
UMTRA ---------- Uranium Mill Tailings Sites
LEAD SMELTERS ---------- Lead Smelter Sites
US MINES ---------- Mines Master Index File
ABANDONED MINES ---------- Abandoned Mines
UXO ---------- Unexploded Ordnance Sites
DOCKET HWC ---------- Hazardous Waste Compliance Docket Listing
FUELS PROGRAM ---------- EPA Fuels Program Registered Listing
NY COAL ASH ---------- Coal Ash Disposal Site Listing
NY DRYCLEANERS ---------- Registered Drycleaners
NY E DESIGNATION ---------- E DESIGNATION SITE LISTING
NY Financial Assurance ---------- Financial Assurance Information Listing
NY HSWDS ---------- Hazardous Substance Waste Disposal Site Inventory
NY SPDES ---------- State Pollutant Discharge Elimination System
NY VAPOR REOPENED ---------- Vapor Intrusion Legacy Site List
NY UIC ---------- Underground Injection Control Wells

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

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

EXECUTIVE SUMMARY

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 12/11/2017 has revealed that there are 2 CORRACTS sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CENTURY CENTRE I	***817 WASHINGTON ST***	***E 0 - 1/8 (0.122 mi.)***	***K45***	***53***
Lower Elevation	**Address**	**Direction / Distance**	**Map ID**	**Page**
BUFFALO TIN PLATING	***194 OAK ST***	***S 1/2 - 1 (0.636 mi.)***	***109***	***466***

Federal RCRA generators list

RCRA-LQG: 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.

A review of the RCRA-LQG list, as provided by EDR, and dated 12/11/2017 has revealed that there are 3 RCRA-LQG sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NYS CENTER FOR EXCEL	***701 ELLICOTT ST***	***ENE 1/8 - 1/4 (0.241 mi.)***	***75***	***161***
Lower Elevation	**Address**	**Direction / Distance**	**Map ID**	**Page**
NATIONAL GRID MH 496	***DELAWARE AVE***	***WNW 0 - 1/8 (0.114 mi.)***	***F39***	***44***
NATIONAL GRID MH46 W	***W TUPPER ST***	***SSW 1/8 - 1/4 (0.182 mi.)***	***N56***	***96***

RCRA-SQG: 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.

A review of the RCRA-SQG list, as provided by EDR, and dated 12/11/2017 has revealed that there is 1 RCRA-SQG site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CHAKRA COMMUNICATION	***644 ELLICOTT ST***	***E 1/8 - 1/4 (0.172 mi.)***	***M54***	***90***

RCRA-CESQG: 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.

A review of the RCRA-CESQG list, as provided by EDR, and dated 12/11/2017 has revealed that there are 4 RCRA-CESQG sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CENTURY CENTRE I	***817 WASHINGTON ST***	***E 0 - 1/8 (0.122 mi.)***	***K45***	***53***

Lower Elevation	Address	Direction / Distance	Map ID	Page
EASTMAN MACHINE CO	***779 WASHINGTON ST***	***SE 1/8 - 1/4 (0.159 mi.)***	***50***	***79***
UNIVERSITY AT BUFFAL	***77 GOODELL ST***	***ESE 1/8 - 1/4 (0.209 mi.)***	***66***	***132***
FAMILY DOLLAR STORE	***400 VIRGINIA ST***	***WNW 1/8 - 1/4 (0.216 mi.)***	***Q73***	***157***

State- and tribal - equivalent CERCLIS

NY 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 NY SHWS list, as provided by EDR, and dated 08/15/2017 has revealed that there are 2 NY SHWS sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
OSMOSE WOOD PRESERVI	980 ELLICOTT STREET	NNE 1/2 - 1 (0.659 mi.)	110	472
Site Code: 56635				
Class Code: Site is properly closed - requires continued management.				

Lower Elevation	Address	Direction / Distance	Map ID	Page
FOURTH STREET MGP SI	43 CAROLINA STREET	WSW 1/2 - 1 (0.814 mi.)	111	474
Site Code: 57529				

State and tribal leaking storage tank lists

NY 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 NY LTANKS list, as provided by EDR, and dated 02/12/2018 has revealed that there are 32 NY LTANKS sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
GREYHOUND Date Closed: 1990-03-29 Site ID: 279141 Program Number: 8912297	ELLICOTT & OAK STREE	E 1/8 - 1/4 (0.192 mi.)	M60	109
ALLENTOWN TRADING CO Date Closed: 1989-08-01 Date Closed: 2007-11-15 Site ID: 128500 Site ID: 128501 Program Number: 8902410 Program Number: 9306552	***553 DELAWARE AVE***	***NNW 1/8 - 1/4 (0.203 mi.)***	***65***	***122***
BENDERSON DEVELOPMEN Date Closed: 1989-11-10 Site ID: 272336 Program Number: 8808966	584 DELAWARE AVENUE	NNW 1/4 - 1/2 (0.273 mi.)	R77	173
NYSDEC Date Closed: 1994-08-15 Date Closed: 1998-05-07 Site ID: 169893 Site ID: 169894 Program Number: 9404468 Program Number: 9503691	***600 DELAWARE AVE***	***N 1/4 - 1/2 (0.303 mi.)***	***R79***	***175***
FORMER MOBIL SERVICE Date Closed: 1989-01-25 Site ID: 146808 Program Number: 8806781	***979 MAIN STREET***	***NNE 1/4 - 1/2 (0.325 mi.)***	***82***	***242***
ROSWELL PARK Date Closed: 1989-11-22 Site ID: 195812 Program Number: 8905775	666 ELM STREET	ENE 1/4 - 1/2 (0.341 mi.)	84	323
KALEIDA HEALTH Date Closed: 2007-09-13 Site ID: 385683 Program Number: 0705382	***50 HIGH STREET***	***NE 1/4 - 1/2 (0.373 mi.)***	***85***	***325***
ROSWELL PARK Date Closed: 2007-11-15 Site ID: 386342 Program Number: 0750760	ELM AT CARLTON	ENE 1/4 - 1/2 (0.392 mi.)	T87	332
NYSDOH ROSWELL LOADI Date Closed: 1995-02-06	ELM & CARLTON	ENE 1/4 - 1/2 (0.392 mi.)	T88	334

Site ID: 289314 Program Number: 9206876				
ROSWELL Date Closed: 1993-08-18 Site ID: 324081 Program Number: 9301132	***ELM AND CARLTON ST***	***ENE 1/4 - 1/2 (0.392 mi.)***	***T89***	***335***
NYSDOH ROSWELL PARK Date Closed: 1995-02-06 Site ID: 324082 Program Number: 9402510	ELM AND CARLTON STRE	ENE 1/4 - 1/2 (0.392 mi.)	T90	338
KULBACK CONSTRUCTION Date Closed: 1994-10-04 Site ID: 221515 Program Number: 9403219	DELAWARE AT NORTH	N 1/4 - 1/2 (0.399 mi.)	91	339
UST @ ROSWELL PRKG G Date Closed: 2007-05-15 Site ID: 372445 Program Number: 0651376	CARLTON STREET	ENE 1/4 - 1/2 (0.407 mi.)	T93	342
473 EAST DELAVAN INC Date Closed: 1988-10-05 Site ID: 185355 Program Number: 8606289	***161 ELMWOOD AVE***	***NW 1/4 - 1/2 (0.409 mi.)***	***94***	***344***
WESTBROOK 675 DELAWA Date Closed: 1994-04-20 Site ID: 213036 Program Number: 9308986	675 DELAWARE AVENUE	N 1/4 - 1/2 (0.416 mi.)	U95	348
GULF SERVICE STATION Date Closed: 1988-08-08 Site ID: 71678 Program Number: 8803956	***1038 MAIN ST***	***NNE 1/4 - 1/2 (0.425 mi.)***	***V96***	***350***
A.R.G. TRUCKING CO. Date Closed: 1987-02-24 Site ID: 193501 Program Number: 8607168	MAIN AND NORTH ST.	NNE 1/4 - 1/2 (0.438 mi.)	V98	358
NIRELLI'S GULF STATI Date Closed: 1989-10-02 Site ID: 168845 Program Number: 8808014	1038 MAIN & NORTH	NNE 1/4 - 1/2 (0.447 mi.)	V99	359
BUFFALO GENERAL MEDI SINCLAIR RADIO OF BU Date Closed: 1998-12-02 Site ID: 190349 Program Number: 9709172	***100 HIGH ST*** 695 DELAWARE AVENUE	***NE 1/4 - 1/2 (0.450 mi.)*** N 1/4 - 1/2 (0.459 mi.)	***100*** U103	***361*** 446
ROSWELL PARK CANCER Date Closed: 1996-07-01 Date Closed: 1999-03-01 Site ID: 116024 Site ID: 309722 Program Number: 9504008 Program Number: 9875428	MICHIGAN AND HIGH ST	ENE 1/4 - 1/2 (0.462 mi.)	105	453
BUFFALO GENERAL HOSP	NORTH STREET	NE 1/4 - 1/2 (0.471 mi.)	106	455

Date Closed: 1994-12-16
Site ID: 116252
Program Number: 9310029

Lower Elevation	Address	Direction / Distance	Map ID	Page
UNIFORM NAME MAKERS Date Closed: 2006-03-06 Site ID: 358731 Program Number: 0551547	742 WASHINGTON STREE	SSE 1/8 - 1/4 (0.160 mi.)	51	84
JOSEPH DAVIS INC Date Closed: 1996-01-30 Site ID: 141703 Program Number: 9311171	325 SOUTH ELMWOOD	W 1/8 - 1/4 (0.197 mi.)	O64	120
NOCO MOTOR FUELS S-4 Date Closed: 1994-06-10 Site ID: 115285 Program Number: 9401935	***400 VIRGINIA AVE***	***WNW 1/8 - 1/4 (0.216 mi.)***	***Q72***	***152***
NIAGARA MOHAWK A NAT Date Closed: 1998-06-01 Site ID: 236140 Program Number: 9800039	***325 DELAWARE AVE***	***SW 1/4 - 1/2 (0.257 mi.)***	***76***	***170***
BUFFALO SCHOOL # 76 Date Closed: 2002-05-30 Site ID: 66723 Program Number: 0111280	300 SOUTH ELMWOOD AV	WSW 1/4 - 1/2 (0.293 mi.)	78	174
SKYDEC CORP. Date Closed: 1999-08-30 Site ID: 63148 Program Number: 9975175	251 FRANKLIN STREET	SSW 1/4 - 1/2 (0.406 mi.)	92	340
BLACK BEAR COMPANY Date Closed: 2005-08-16 Site ID: 345633 Program Number: 0501474	27-10 HUNTERS POINT	WSW 1/4 - 1/2 (0.451 mi.)	101	443
SIMON OIL COMPANY Date Closed: 1990-03-28 Site ID: 242396 Program Number: 8900269	SOUTH ELMWOOD & CHIP	SW 1/4 - 1/2 (0.453 mi.)	102	444
G A KAYSER & SONS IN Date Closed: 1993-11-23 Site ID: 119662 Program Number: 9207974	***327 ELM ST***	***SSE 1/4 - 1/2 (0.473 mi.)***	***107***	***457***
E.C.C. #36 Date Closed: 2004-03-02 Date Closed: 2003-12-24 Site ID: 257189 Site ID: 257190 Program Number: 0375433 Program Number: 0375434	***10 DAYS PARK***	***WNW 1/4 - 1/2 (0.482 mi.)***	***108***	***460***

EXECUTIVE SUMMARY

State and tribal registered storage tank lists

NY 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 NY UST list, as provided by EDR, has revealed that there are 5 NY UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
TRICO PRODUCTS CORPO	***817 WASHINGTON ST***	***E 0 - 1/8 (0.122 mi.)***	***K47***	***70***
Database: UST, Date of Government Version: 12/22/2017				
ALLENTOWN TRADING CO	***553 DELAWARE AVE***	***NNW 1/8 - 1/4 (0.203 mi.)***	***65***	***122***
Database: UST, Date of Government Version: 12/22/2017				

Lower Elevation	Address	Direction / Distance	Map ID	Page
370 FRANKLIN STREET	370 FRANKLLIN STREET	SW 0 - 1/8 (0.093 mi.)	E26	25
Database: UST, Date of Government Version: 12/22/2017				
120 W. TUPPER STREET	325 SOUTH ELMWOOD AV	W 1/8 - 1/4 (0.197 mi.)	O62	112
Database: UST, Date of Government Version: 12/22/2017				
NOCO MOTOR FUELS S-4	***400 VIRGINIA AVE***	***WNW 1/8 - 1/4 (0.216 mi.)***	***Q72***	***152***
Database: UST, Date of Government Version: 12/22/2017				

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

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

Lower Elevation	Address	Direction / Distance	Map ID	Page
UNITED IMPORT MOTORS	548 PEARL STREET	S 1/8 - 1/4 (0.166 mi.)	L52	85
Database: AST, Date of Government Version: 12/22/2017 Facility Id: 9-600239				
THE BUFFALO CLUB	388 DELAWARE AVE	WSW 1/8 - 1/4 (0.168 mi.)	53	88
Database: AST, Date of Government Version: 12/22/2017 Facility Id: 9-223905				

State and tribal institutional control / engineering control registries

NY ENG CONTROLS: Environmental Remediation sites that have engineering controls in place.

A review of the NY ENG CONTROLS list, as provided by EDR, and dated 08/15/2017 has revealed that there are 3 NY ENG CONTROLS sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
FORMER MOBIL SERVICE	***979 MAIN STREET***	***NNE 1/4 - 1/2 (0.325 mi.)***	***82***	***242***

Site Code: 458395

Lower Elevation	Address	Direction / Distance	Map ID	Page
BUFFALO DEVELOPMENT Site Code: 366739	***275 FRANKLIN ST***	***SSW 1/4 - 1/2 (0.323 mi.)***	***S81***	***197***
432 PEARL STREET Site Code: 437176	***432 PEARL STREET***	***SSW 1/4 - 1/2 (0.336 mi.)***	***S83***	***270***

Environmental Remediation sites that have institutional controls in place.

A review of the NY INST CONTROL list, as provided by EDR, and dated 08/15/2017 has revealed that there are 3 NY INST CONTROL sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
FORMER MOBIL SERVICE Site Code: 458395	***979 MAIN STREET***	***NNE 1/4 - 1/2 (0.325 mi.)***	***82***	***242***

Lower Elevation	Address	Direction / Distance	Map ID	Page
BUFFALO DEVELOPMENT Site Code: 366739	***275 FRANKLIN ST***	***SSW 1/4 - 1/2 (0.323 mi.)***	***S81***	***197***
432 PEARL STREET Site Code: 437176	***432 PEARL STREET***	***SSW 1/4 - 1/2 (0.336 mi.)***	***S83***	***270***

State and tribal Brownfields sites

NY BROWNFIELDS: Brownfields Site List

A review of the NY BROWNFIELDS list, as provided by EDR, and dated 08/15/2017 has revealed that there are 7 NY BROWNFIELDS sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
FORMER TRICO PLANT Site Code: 485846	791 WASHINGTON STREE	ESE 1/8 - 1/4 (0.125 mi.)	K49	75
FORMER MOBIL SERVICE Site Code: 458395	***979 MAIN STREET***	***NNE 1/4 - 1/2 (0.325 mi.)***	***82***	***242***
19 NORTH STREET Site Code: 521040	19 NORTH STREET	NNE 1/4 - 1/2 (0.437 mi.)	V97	357

Lower Elevation	Address	Direction / Distance	Map ID	Page
275 FRANKLIN STREET Site Code: 423240 Site Code: 366739	275 FRANKLIN STREET	SSW 1/4 - 1/2 (0.323 mi.)	S80	190
432 PEARL STREET Site Code: 437176	***432 PEARL STREET***	***SSW 1/4 - 1/2 (0.336 mi.)***	***S83***	***270***
250 DELAWARE AVENUE	250 DELAWARE AVENUE	SSW 1/4 - 1/2 (0.380 mi.)	86	327

Site Code: 476973

295 MARYLAND STREET	***295 MARYLAND STREET***	***W 1/4 - 1/2 (0.462 mi.)***	***104***	***447***

Site Code: 445376

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Landfill / Solid Waste Disposal Sites

OH SWRCY: A listing of recycling facility locations.

A review of the OH SWRCY list, as provided by EDR, and dated 01/22/2018 has revealed that there is 1 OH SWRCY site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
FPPF CHEMICAL COMPAN	117 W. TUPPER STREET	SW 1/8 - 1/4 (0.225 mi.)	P74	160

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 02/12/2018 has revealed that there are 4 NY Spills sites within approximately 0.125 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
FLYNN'S BAR AND GRIL Date Closed: 1989-10-02 Spill Number: 8803675 Site ID: 187489	815 MAIN STREET	ESE 0 - 1/8 (0.117 mi.)	K41	47
TRICO PRODUCTS CORPO Date Closed: 1993-02-19 Spill Number: 9212975 Site ID: 230143	***817 WASHINGTON ST***	***E 0 - 1/8 (0.122 mi.)***	***K47***	***70***

Lower Elevation	Address	Direction / Distance	Map ID	Page
NYS DEPT OF ENVIR CO Date Closed: 2014-11-14 Spill Number: 8600065 Site ID: 212131	***437 DELAWARE AVE***	***W 0 - 1/8 (0.106 mi.)***	***F33***	***29***
TRICO PRODUCTS Date Closed: 1986-04-21 Spill Number: 8600458 Site ID: 194593	GOODELL & WASHINGTON	SE 0 - 1/8 (0.123 mi.)	K48	74

Other Ascertainable Records

RCRA NonGen / NLR: 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 / NLR list, as provided by EDR, and dated 12/11/2017 has revealed that there are 14 RCRA NonGen / NLR sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
RESTORATION WORKS IN	***9-11 ST LOUIS PL***	***ESE 0 - 1/8 (0.010 mi.)***	***1***	***8***
COURIER EXPRESS	***795 MAIN ST***	***ESE 0 - 1/8 (0.069 mi.)***	***D12***	***14***
CELLULAR PRODUCTS IN	***872 MAIN ST***	***NE 0 - 1/8 (0.117 mi.)***	***J42***	***48***
DEPT OF COMMUNITY DE	***9 CARLTON ST***	***NE 1/8 - 1/4 (0.190 mi.)***	***57***	***98***
WESTINGHOUSE ELECTRI	***700 ELICOTT SQ BLDG***	***ENE 1/8 - 1/4 (0.192 mi.)***	***59***	***105***

Lower Elevation	Address	Direction / Distance	Map ID	Page
TEXACO DOWNSTREAM PR	***455 DELAWARE AVE***	***W 0 - 1/8 (0.093 mi.)***	***F25***	***23***
NYS DEPT OF ENVIR CO	***437 DELAWARE AVE***	***W 0 - 1/8 (0.106 mi.)***	***F33***	***29***
SCHMIDT'S AUTOBODY A	***555 PEARL ST***	***S 1/8 - 1/4 (0.191 mi.)***	***L58***	***100***
NIAGARA MOHAWK-A NAT	***78 W TUPPER***	***SW 1/8 - 1/4 (0.195 mi.)***	***N61***	***110***
JOSEPH DAVIS INC	***325 S ELMWOOD AVE***	***W 1/8 - 1/4 (0.197 mi.)***	***O63***	***116***
M & V RING CO INC	***505 PEARL ST***	***S 1/8 - 1/4 (0.211 mi.)***	***L67***	***136***
PM REFINING INC	***505 PEARL ST***	***S 1/8 - 1/4 (0.211 mi.)***	***L68***	***139***
SATURN RINGS INC	***505 PEARL ST - 5TH F***	***S 1/8 - 1/4 (0.211 mi.)***	***L69***	***143***
NIAGARA MOHAWK A NAT	***W TUPPER AVE & DELAW***	***SW 1/8 - 1/4 (0.213 mi.)***	***P70***	***148***

FUDS: 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.

A review of the FUDS list, as provided by EDR, and dated 01/31/2015 has revealed that there is 1 FUDS site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
NIKE BU 09		SSE 1/2 - 1 (0.869 mi.)	112	477

NY MANIFEST: Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

A review of the NY MANIFEST list, as provided by EDR, and dated 12/31/2017 has revealed that there are 20 NY MANIFEST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
RESTORATION WORKS IN EPA ID: NYD986965242	***9-11 ST LOUIS PL***	***ESE 0 - 1/8 (0.010 mi.)***	***1***	***8***
COURIER EXPRESS EPA ID: NYD980762439	***795 MAIN ST***	***ESE 0 - 1/8 (0.069 mi.)***	***D12***	***14***
CELLULAR PRODUCTS IN	***872 MAIN ST***	***NE 0 - 1/8 (0.117 mi.)***	***J42***	***48***

EPA ID: NYD986995181				
CENTURY CENTRE I	***817 WASHINGTON ST***	***E 0 - 1/8 (0.122 mi.)***	***K45***	***53***
EPA ID: NYD002107399				
CHAKRA COMMUNICATION	***644 ELLICOTT ST***	***E 1/8 - 1/4 (0.172 mi.)***	***M54***	***90***
EPA ID: NYR000108415				
WESTINGHOUSE ELECTRI	***700 ELICOTT SQ BLDG***	***ENE 1/8 - 1/4 (0.192 mi.)***	***59***	***105***
EPA ID: NYD030230577				
NYS CENTER FOR EXCEL	***701 ELLICOTT ST***	***ENE 1/8 - 1/4 (0.241 mi.)***	***75***	***161***
EPA ID: NYR000140590				

Lower Elevation	Address	Direction / Distance	Map ID	Page
STAR ENTERPRISE	455 DELAWARE	W 0 - 1/8 (0.093 mi.)	F23	21
EPA ID: NYD986887461				
NYS DEPT OF ENVIR CO	***437 DELAWARE AVE***	***W 0 - 1/8 (0.106 mi.)***	***F33***	***29***
EPA ID: NYD982276313				
NIAGARA MOHAWK A NAT	DELAWARE AVE & VIRGI	WNW 0 - 1/8 (0.114 mi.)	F38	43
EPA ID: NYP000971788				
EASTMAN MACHINE CO	***779 WASHINGTON ST***	***SE 1/8 - 1/4 (0.159 mi.)***	***50***	***79***
EPA ID: NYD002107555				
NIAGARA MOHAWK A NAT	W TUPPER ST	SSW 1/8 - 1/4 (0.182 mi.)	N55	94
EPA ID: NYP000971747				
SCHMIDT'S AUTOBODY A	***555 PEARL ST***	***S 1/8 - 1/4 (0.191 mi.)***	***L58***	***100***
EPA ID: NYD982279259				
NIAGARA MOHAWK-A NAT	***78 W TUPPER***	***SW 1/8 - 1/4 (0.195 mi.)***	***N61***	***110***
EPA ID: NYP000969824				
JOSEPH DAVIS INC	***325 S ELMWOOD AVE***	***W 1/8 - 1/4 (0.197 mi.)***	***O63***	***116***
EPA ID: NYD982793838				
UNIVERSITY AT BUFFAL	***77 GOODELL ST***	***ESE 1/8 - 1/4 (0.209 mi.)***	***66***	***132***
EPA ID: NYD982180127				
M & V RING CO INC	***505 PEARL ST***	***S 1/8 - 1/4 (0.211 mi.)***	***L67***	***136***
EPA ID: NYD013744180				
PM REFINING INC	***505 PEARL ST***	***S 1/8 - 1/4 (0.211 mi.)***	***L68***	***139***
EPA ID: NYD002104552				
SATURN RINGS INC	***505 PEARL ST - 5TH F***	***S 1/8 - 1/4 (0.211 mi.)***	***L69***	***143***
EPA ID: NY0000370734				
NIAGARA MOHAWK A NAT	W TUPPER AVE & DELAW	SW 1/8 - 1/4 (0.213 mi.)	P71	150
EPA ID: NYP000972174				

RI MANIFEST: Hazardous waste manifest information

A review of the RI MANIFEST list, as provided by EDR, and dated 12/31/2013 has revealed that there is 1 RI MANIFEST site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
SATURN RINGS INC	***505 PEARL ST - 5TH F***	***S 1/8 - 1/4 (0.211 mi.)***	***L69***	***143***
EPA ID: NY0000370734				

MN MANIFEST: Hazardous waste manifest data.

A review of the MN MANIFEST list, as provided by EDR, and dated 06/30/2016 has revealed that there is 1 MN MANIFEST site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
TRICO PRODUCTS	817 WASHINGTON ST	E 0 - 1/8 (0.122 mi.)	K46	68

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: 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 EDR MGP list, as provided by EDR, has revealed that there are 2 EDR MGP sites within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
NATIONAL FUEL GAS -	249 WEST GENESEE STR	SSW 1/2 - 1 (0.891 mi.)	113	478
4TH STREET SITE	4TH STREET AND TRENT	SW 1/2 - 1 (0.916 mi.)	114	479

EDR Hist Auto: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Auto list, as provided by EDR, has revealed that there are 24 EDR Hist Auto sites within approximately 0.125 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
FABINSKI WALTER AUTO	538 VIRGINIA ST	NE 0 - 1/8 (0.058 mi.)	C7	12
SHORT HARRY L FILLIN	819 MAIN ST	E 0 - 1/8 (0.062 mi.)	C9	13
LOVETT & PARRIGAN GA	433 FRANKLIN ST	N 0 - 1/8 (0.067 mi.)	10	13
TONYS SERV STA	34 PEARL ST	NNE 0 - 1/8 (0.100 mi.)	G27	27
BUSSI GEO FILLING ST	38 PEARL ST	NNE 0 - 1/8 (0.108 mi.)	G36	42

Lower Elevation	Address	Direction / Distance	Map ID	Page
REX GARAGE	401 FRANKLIN ST	WSW 0 - 1/8 (0.023 mi.)	A3	11
CENTER CITY MOPED	385 FRANKLIN ST	SW 0 - 1/8 (0.045 mi.)	A4	12

EXECUTIVE SUMMARY

Lower Elevation	Address	Direction / Distance	Map ID	Page
DOWD AUTO GLASS CO	392 FRANKLIN ST	WSW 0 - 1/8 (0.048 mi.)	A5	12
CYCLORAMA GARAGE	32 EDWARD ST	SSE 0 - 1/8 (0.068 mi.)	B11	13
FRITZ COLLISION SERV	68 EDWARD ST	WSW 0 - 1/8 (0.074 mi.)	E14	18
EDWARDS STREET GARAG	71 EDWARD ST	WSW 0 - 1/8 (0.077 mi.)	E16	18
EDWARD STREET GARAGE	73 EDWARD ST	WSW 0 - 1/8 (0.080 mi.)	E17	19
EDWARD STREET AUTO C	75 EDWARD ST	WSW 0 - 1/8 (0.083 mi.)	E19	20
EDWARD STREET GARAGE	77 EDWARD ST	WSW 0 - 1/8 (0.085 mi.)	E20	20
EDWARD STREET GARAGE	79 EDWARD ST	WSW 0 - 1/8 (0.087 mi.)	E21	20
EDWARD STREET GARAGE	81 EDWARD ST	WSW 0 - 1/8 (0.091 mi.)	E22	21
DAUCHER LES TEXACO S	455 DELAWARE AVE	W 0 - 1/8 (0.093 mi.)	F24	22
JIMS AUTO REPR	361 FRANKLIN ST	SSW 0 - 1/8 (0.102 mi.)	H28	28
MAIN TACK SERVICE &	767 MAIN ST	SSE 0 - 1/8 (0.104 mi.)	I30	28
NOHIO DISTRIBUTORS I	435 DELAWARE AVE	W 0 - 1/8 (0.107 mi.)	F34	42
OHILSON ROY AUTO LND	359 FRANKLIN ST	SSW 0 - 1/8 (0.108 mi.)	H35	42
DANNYS AUTO WASH	357 FRANKLIN ST	SSW 0 - 1/8 (0.114 mi.)	H40	46
MAIN TECK SERVICE &	757 MAIN ST	SSE 0 - 1/8 (0.119 mi.)	I43	52
FITZSIMMONS BROS CO	755 MAIN ST	SSE 0 - 1/8 (0.120 mi.)	I44	52

EDR Hist Cleaner: EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Cleaner list, as provided by EDR, has revealed that there are 10 EDR Hist Cleaner sites within approximately 0.125 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NELSON HELEN CLO CLN	808 MAIN ST	ESE 0 - 1/8 (0.060 mi.)	D8	13
KOROVESIS GUST CLO C	829 MAIN ST	ENE 0 - 1/8 (0.072 mi.)	C13	18
TIP TOP HAND LAUNDRY	831 MAIN ST	ENE 0 - 1/8 (0.075 mi.)	C15	18
KOROVESIS GUST HAT C	834 MAIN ST	ENE 0 - 1/8 (0.081 mi.)	C18	19
MAIN HAND LAUNDRY	852 MAIN ST	NE 0 - 1/8 (0.105 mi.)	C31	28
MAIN HAND LAUNDRY	854 MAIN ST	NE 0 - 1/8 (0.108 mi.)	J37	43

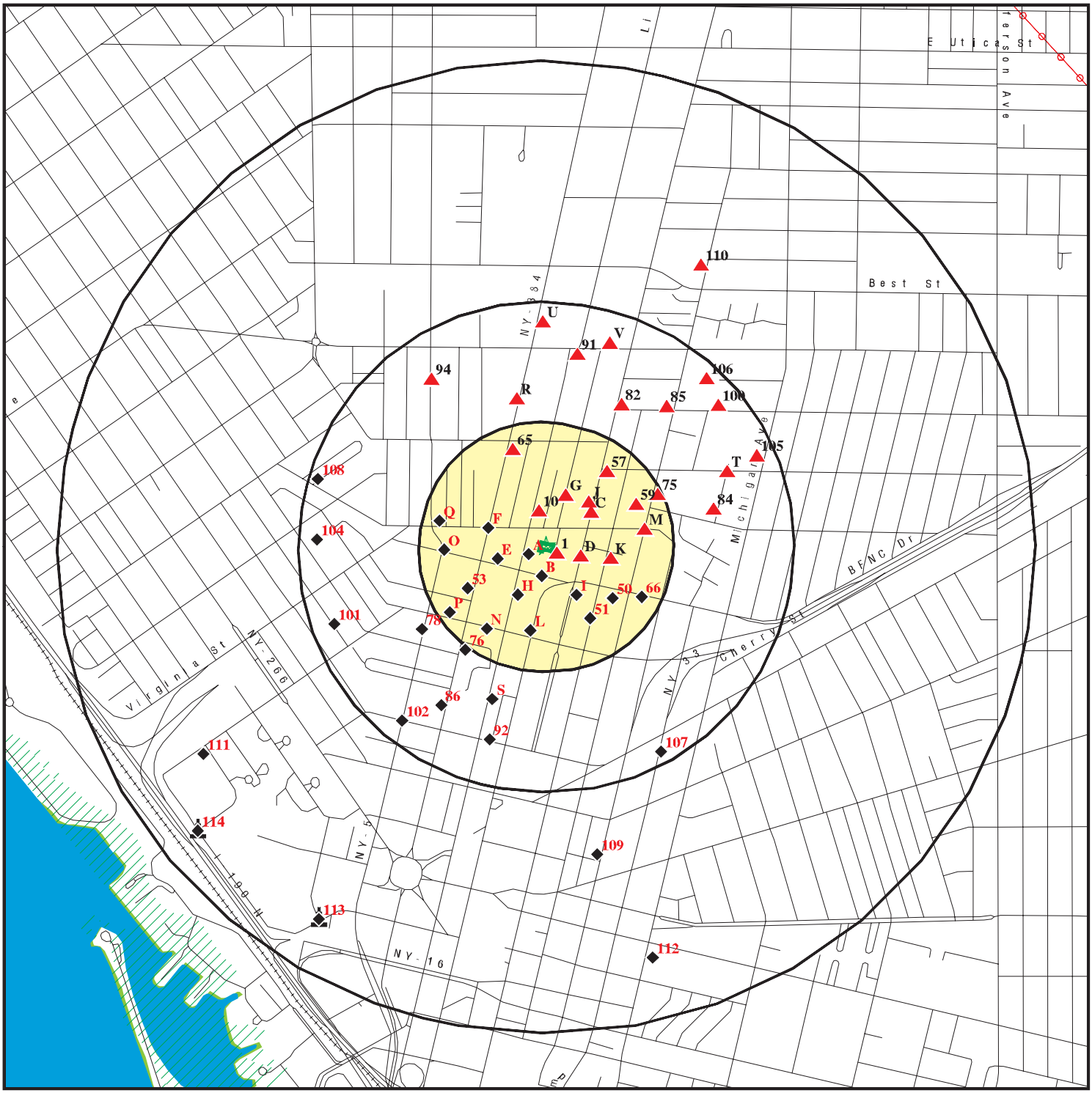
Lower Elevation	Address	Direction / Distance	Map ID	Page
ALLASEN DIAB M CO RU	401 FRANKLIN ST	WSW 0 - 1/8 (0.023 mi.)	A2	11
PICOLY GEO DCLO CLNR	41 EDWARD ST	S 0 - 1/8 (0.051 mi.)	B6	12
A S & H CORPORATION	764 MAIN ST	SSE 0 - 1/8 (0.103 mi.)	I29	28
AMERICAN LAUNDRY MAC	443 DELAWARE AVE	W 0 - 1/8 (0.105 mi.)	F32	29

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 1 records.

Site Name	Database(s)
ALLIED CHEMICAL-HOPKINS ST. SITE	NY SHWS

OVERVIEW MAP - 5223889.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

Dept. Defense Sites

Indian Reservations BIA

Power transmission lines

100-year flood zone

500-year flood zone

National Wetland Inventory

State Wetlands

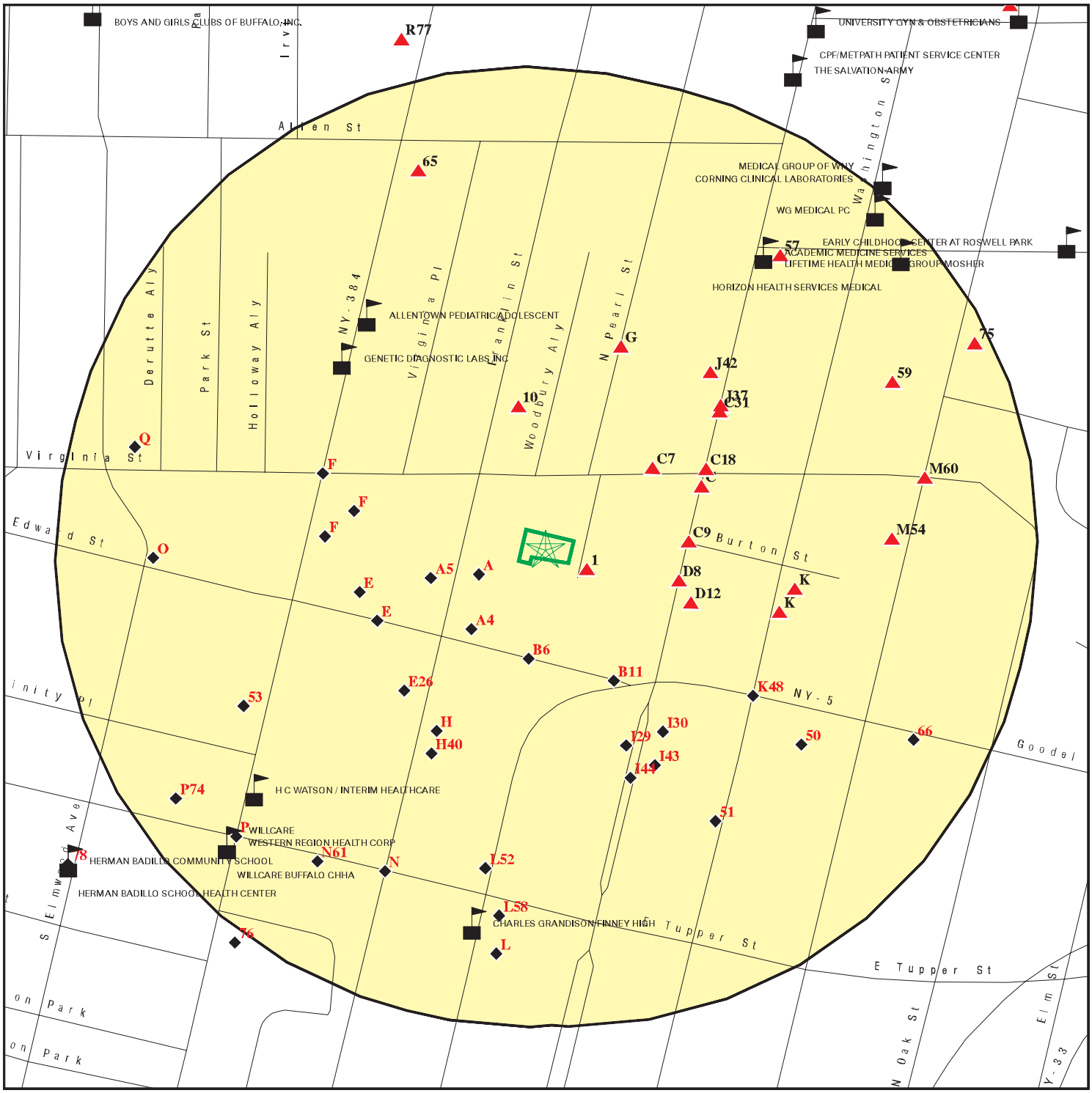
Upgradient Area

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

SITE NAME:	8 St. Louis Pl.	CLIENT:	TurnKey Environmental Restoration, LLC.
ADDRESS:	8 St. Louis Pl. Buffalo NY 14202	CONTACT:	Chad Schuster
		INQUIRY #:	5223889.2s
LAT/LONG:	42.896236 / 78.872419	DATE:	March 19, 2018 1:16 pm

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DETAIL MAP - 5223889.2S



- 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
- 100-year flood zone
- 500-year flood zone

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

SITE NAME: 8 St. Louis Pl.	CLIENT: TurnKey Environmental Restoration, LLC.
ADDRESS: 8 St. Louis Pl.	CONTACT: Chad Schuster
Buffalo NY 14202	INQUIRY #: 5223889.2s
LAT/LONG: 42.896236 / 78.872419	DATE: March 19, 2018 1:17 pm

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
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								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		1	0	0	1	NR	2
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		1	2	NR	NR	NR	3
RCRA-SQG	0.250		0	1	NR	NR	NR	1
RCRA-CESQG	0.250		1	3	NR	NR	NR	4
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
State- and tribal - equivalent CERCLIS								
NY SHWS	1.000		0	0	0	2	NR	2
State and tribal landfill and/or solid waste disposal site lists								
NY SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
INDIAN LUST	0.500		0	0	0	NR	NR	0
NY LTANKS	0.500		0	5	27	NR	NR	32
NY HIST LTANKS	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
NY UST	0.250		2	3	NR	NR	NR	5
NY CBS UST	0.250		0	0	NR	NR	NR	0
NY MOSF UST	0.500		0	0	0	NR	NR	0
NY MOSF	0.500		0	0	0	NR	NR	0
NY CBS	0.250		0	0	NR	NR	NR	0
NY AST	0.250		0	2	NR	NR	NR	2
NY CBS AST	0.250		0	0	NR	NR	NR	0
NY MOSF AST	0.500		0	0	0	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
NY TANKS	0.250		0	0	NR	NR	NR	0
State and tribal institutional control / engineering control registries								
NY RES DECL	0.125		0	NR	NR	NR	NR	0
NY ENG CONTROLS	0.500		0	0	3	NR	NR	3
NY INST CONTROL	0.500		0	0	3	NR	NR	3
State and tribal voluntary cleanup sites								
NY VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
NY BROWNFIELDS	0.500		0	1	6	NR	NR	7
NY ERP	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
NY SWTIRE	0.500		0	0	0	NR	NR	0
NY SWRCY	0.500		0	0	0	NR	NR	0
OH SWRCY	0.500		0	1	0	NR	NR	1
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	TP		NR	NR	NR	NR	NR	0
NY DEL SHWS	1.000		0	0	0	0	NR	0
US CDL	TP		NR	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
NY HIST UST	0.250		0	0	NR	NR	NR	0
NY HIST AST	TP		NR	NR	NR	NR	NR	0
Local Land Records								
NY LIENS	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LIENS 2	TP		NR	NR	NR	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0
NY Spills	0.125		4	NR	NR	NR	NR	4
NY Hist Spills	0.125		0	NR	NR	NR	NR	0
NY SPILLS 90	0.125		0	NR	NR	NR	NR	0
NY SPILLS 80	0.125		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		5	9	NR	NR	NR	14
FUDS	1.000		0	0	0	1	NR	1
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
ECHO	TP		NR	NR	NR	NR	NR	0
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
NY AIRS	TP		NR	NR	NR	NR	NR	0
NY COAL ASH	0.500		0	0	0	NR	NR	0
NY DRYCLEANERS	0.250		0	0	NR	NR	NR	0
NY E DESIGNATION	0.125		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
NY Financial Assurance	TP		NR	NR	NR	NR	NR	0
NY HSWDS	0.500		0	0	0	NR	NR	0
NY MANIFEST	0.250		7	13	NR	NR	NR	20
NJ MANIFEST	0.250		0	0	NR	NR	NR	0
RI MANIFEST	0.250		0	1	NR	NR	NR	1
MN MANIFEST	0.250		1	0	NR	NR	NR	1
NY SPDES	TP		NR	NR	NR	NR	NR	0
NY VAPOR REOPENED	0.500		0	0	0	NR	NR	0
NY UIC	TP		NR	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	2	NR	2
EDR Hist Auto	0.125		24	NR	NR	NR	NR	24
EDR Hist Cleaner	0.125		10	NR	NR	NR	NR	10
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
NY RGA HWS	TP		NR	NR	NR	NR	NR	0
NY RGA LF	TP		NR	NR	NR	NR	NR	0
- Totals --		0	56	41	39	6	0	142

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

1
ESE
< 1/8
0.010 mi.
55 ft.

RESTORATION WORKS INC
9-11 ST LOUIS PL
BUFFALO, NY 14202

RCRA NonGen / NLR
FINDS
ECHO
NY MANIFEST

1000554070
NYD986965242

Relative:
Higher

Actual:
634 ft.

RCRA NonGen / NLR:

Date form received by agency:	01/01/2007
Facility name:	RESTORATION WORKS INC
Facility address:	9-11 ST LOUIS PL BUFFALO, NY 14202-1502
EPA ID:	NYD986965242
Mailing address:	PO BOX 486 BUFFALO, NY 14205
Contact:	Not reported
Contact address:	PO BOX 486 BUFFALO, NY 14205
Contact country:	US
Contact telephone:	Not reported
Contact email:	Not reported
EPA Region:	02
Land type:	Private
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

adjacent

Owner/Operator Summary:

Owner/operator name:	LINDA S PRIEBE
Owner/operator address:	PO BOX 486 BUFFALO, NY 14205
Owner/operator country:	US
Owner/operator telephone:	716-856-8000
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	LINDA S PRIEBE
Owner/operator address:	PO BOX 486 BUFFALO, NY 14205
Owner/operator country:	US
Owner/operator telephone:	716-856-8000
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
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

RESTORATION WORKS INC (Continued) **1000554070**

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
Site name: RESTORATION WORKS INC
Classification: Not a generator, verified

Date form received by agency: 07/08/1999
Site name: RESTORATION WORKS INC
Classification: Not a generator, verified

Date form received by agency: 07/03/1991
Site name: RESTORATION WORKS INC
Classification: Small Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: X003
. Waste name: OTHER STATE REGULATED WASTES [i.e., DIESEL FUEL, GASOLINE AND HOME HEATING OIL]

Violation Status: No violations found

Evaluation Action Summary:
Evaluation date: 06/20/1995
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

FINDS:

Registry ID: 110004473720

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.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

RESTORATION WORKS INC (Continued) **1000554070**

ECHO:
Envid: 1000554070
Registry ID: 110004473720
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110004473720

NY MANIFEST:
Country: USA
EPA ID: NYD986965242
Facility Status: Not reported
Location Address 1: 810 MAIN STREET
Code: BP
Location Address 2: Not reported
Total Tanks: Not reported
Location City: BUFFALO
Location State: NY
Location Zip: 14202
Location Zip 4: Not reported

NY MANIFEST:
EPAID: NYD986965242
Mailing Name: RESTORATION WORKS
Mailing Contact: LINDA S. PRIEBE
Mailing Address 1: 810 MAIN STREET
Mailing Address 2: Not reported
Mailing City: BUFFALO
Mailing State: NY
Mailing Zip: 14202
Mailing Zip 4: Not reported
Mailing Country: USA
Mailing Phone: 7168568000

NY MANIFEST:
Document ID: NYB1611504
Manifest Status: C
seq: Not reported
Year: 1991
Trans1 State ID: DJ6956
Trans2 State ID: Not reported
Generator Ship Date: 08/02/1991
Trans1 Recv Date: 08/02/1991
Trans2 Recv Date: / /
TSD Site Recv Date: 08/05/1991
Part A Recv Date: / /
Part B Recv Date: 08/15/1991
Generator EPA ID: NYD986965242
Trans1 EPA ID: NYD981876006
Trans2 EPA ID: Not reported
TSDF ID 1: NYD043815703
TSDF ID 2: Not reported
Manifest Tracking Number: Not reported
Import Indicator: Not reported
Export Indicator: Not reported
Discr Quantity Indicator: Not reported
Discr Type Indicator: Not reported
Discr Residue Indicator: Not reported
Discr Partial Reject Indicator: Not reported

RESTORATION WORKS INC (Continued) **1000554070**

Discr Full Reject Indicator:	Not reported
Manifest Ref Number:	Not reported
Alt Facility RCRA ID:	Not reported
Alt Facility Sign Date:	Not reported
MGMT Method Type Code:	Not reported
Waste Code:	D001 - NON-LISTED IGNITABLE WASTES
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Quantity:	00050
Units:	G - Gallons (liquids only)* (8.3 pounds)
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	T Chemical, physical, or biological treatment.
Specific Gravity:	100
Waste Code:	D001 - NON-LISTED IGNITABLE WASTES
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Quantity:	00550
Units:	P - Pounds
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	100

Click this hyperlink while viewing on your computer to access additional NY_MANIFEST: detail in the EDR Site Report.

A2 **ALLASEN DIAB M CO RUG CLN** **EDR Hist Cleaner** **1014534822**
WSW **401 FRANKLIN ST** **N/A**
< 1/8 **BUFFALO, NY** nearby
0.023 mi.
120 ft. **Site 1 of 4 in cluster A**

Relative: EDR Hist Cleaner
Lower

Actual: **631 ft.**

Year:	Name:	Type:
1964	ALLASEN DIAB M CO RUG CLN	CARPET AND RUG CLEANERS
1970	ALLASEN DIAB M CO RUG CLN	CARPET AND RUG CLEANERS
1975	ALLASEN DIAB M CO RUG CLN & REP	CARPET AND RUG CLEANERS

A3 **REX GARAGE** **EDR Hist Auto** **1014536981**
WSW **401 FRANKLIN ST** **N/A**
< 1/8 **BUFFALO, NY** nearby
0.023 mi.
120 ft. **Site 2 of 4 in cluster A**

Relative: EDR Hist Auto
Lower

Actual: **631 ft.**

Year:	Name:	Type:
1935	FIERLE BROS AUTO REPRS	AUTOMOBILE REPAIRING

REX GARAGE (Continued) **1014536981**

1940	FIERLE BROS AUTO REPRS	AUTOMOBILE REPAIRING
1946	REX GARAGE	GASOLINE AND OIL SERVICE STATIONS

A4 **CENTER CITY MOPED** **EDR Hist Auto** **1014538078**
SW **385 FRANKLIN ST** **N/A**
< 1/8 **BUFFALO, NY 14202**
0.045 mi.
237 ft. **Site 3 of 4 in cluster A**

Relative: EDR Hist Auto
Lower

Actual: **630 ft.**

Year:	Name:	Type:
1980	CENTER CITY MOPED	MOTORCYCLE DEALERS AND REPAIRERS

A5 **DOWD AUTO GLASS CO** **EDR Hist Auto** **1014538470**
WSW **392 FRANKLIN ST** **N/A**
< 1/8 **BUFFALO, NY**
0.048 mi.
255 ft. **Site 4 of 4 in cluster A**

Relative: EDR Hist Auto
Lower

Actual: **630 ft.**

Year:	Name:	Type:
1935	DOWD AUTO GLASS CO	AUTOMOBILE REPAIRING

B6 **PICOLY GEO DCLO CLNR** **EDR Hist Cleaner** **1014536025**
South **41 EDWARD ST** **N/A**
< 1/8 **BUFFALO, NY**
0.051 mi.
271 ft. **Site 1 of 2 in cluster B**

Relative: EDR Hist Cleaner
Lower

Actual: **632 ft.**

Year:	Name:	Type:
1930	PICOLY GEO DCLO CLNR	CLOTHES PRESSERS AND CLEANERS

C7 **FABINSKI WALTER AUTO RE DR** **EDR Hist Auto** **1014539588**
NE **538 VIRGINIA ST** **N/A**
< 1/8 **BUFFALO, NY**
0.058 mi.
306 ft. **Site 1 of 6 in cluster C**

Relative: EDR Hist Auto
Higher

Actual: **638 ft.**

Year:	Name:	Type:
1930	FABINSKI WALTER AUTO RE DR	AUTOMOBILE REPAIRING
1935	FABIAN AUTO SERVICE CO	AUTOMOBILE REPAIRING
1946	RASKIN MOTOR SALES	AUTOMOBILE REPAIRING
1950	RAFALSKI EUG R AUTO REPR	AUTOMOBILE REPAIRING

D8 **NELSON HELEN CLO CLNR** **EDR Hist Cleaner** **1014535751**
ESE **808 MAIN ST** **N/A**
< 1/8 **BUFFALO, NY**
0.060 mi.
318 ft. **Site 1 of 2 in cluster D**

Relative: EDR Hist Cleaner
Higher

Actual: Year: Name: Type:
636 ft. 1935 NELSON HELEN CLO CLNR CLOTHES PRESSERS AND CLEANERS

C9 **SHORT HARRY L FILLING STA** **EDR Hist Auto** **1014538288**
East **819 MAIN ST** **N/A**
< 1/8 **BUFFALO, NY**
0.062 mi.
327 ft. **Site 2 of 6 in cluster C**

Relative: EDR Hist Auto
Higher

Actual: Year: Name: Type:
637 ft. 1940 SHORT HARRY L FILLING STA GASOLINE AND OIL SERVICE STATIONS
1946 STANLEY SERVICE STATION FILLING GASOLINE AND OIL SERVICE STATIONS
1950 STANLEY SERVICE STATION FILLING GASOLINE STATIONS

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10 **LOVETT & PARRIGAN GARAGE** **EDR Hist Auto** **1014539293**
North **433 FRANKLIN ST** **N/A**
< 1/8 **BUFFALO, NY**
0.067 mi.
353 ft.

Relative: EDR Hist Auto
Higher

Actual: Year: Name: Type:
636 ft. 1930 LOVETT & PARRIGAN GARAGE AUTOMOBILE GARAGES

B11 **CYCLORAMA GARAGE** **EDR Hist Auto** **1014539158**
SSE **32 EDWARD ST** **N/A**
< 1/8 **BUFFALO, NY**
0.068 mi.
359 ft. **Site 2 of 2 in cluster B**

Relative: EDR Hist Auto
Lower

Actual: Year: Name: Type:
633 ft. 1930 MINICLIER WALTER AUTOMOBILE GARAGES
1935 CYCLORAMA GARAGE AUTOMOBILE GARAGES

D12 **COURIER EXPRESS** **RCRA NonGen / NLR** **1000361647**
ESE **795 MAIN ST** **FTTS** **NYD980762439**
< 1/8 **BUFFALO, NY 14203** **HIST FTTS**
0.069 mi. **FINDS**
366 ft. **Site 2 of 2 in cluster D** **ECHO**
NY MANIFEST

Relative:
Higher

Actual:
635 ft.

RCRA NonGen / NLR:

Date form received by agency:	01/01/2007
Facility name:	COURIER EXPRESS
Facility address:	795 MAIN ST BUFFALO, NY 14203-1215
EPA ID:	NYD980762439
Mailing address:	MAIN ST BUFFALO, NY 14203
Contact:	Not reported
Contact address:	MAIN ST BUFFALO, NY 14203
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:	COWLES MEDIA CO
Owner/operator address:	NOT REQUIRED NOT REQUIRED, WY 99999
Owner/operator country:	US
Owner/operator telephone:	212-555-1212
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	COWLES MEDIA CO
Owner/operator address:	NOT REQUIRED NOT REQUIRED, WY 99999
Owner/operator country:	US
Owner/operator telephone:	212-555-1212
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
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

COURIER EXPRESS (Continued) **1000361647**

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
Site name: COURIER EXPRESS
Classification: Not a generator, verified

Date form received by agency: 07/08/1999
Site name: COURIER EXPRESS
Classification: Not a generator, verified

Date form received by agency: 10/20/1983
Site name: COURIER EXPRESS
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

Violation Status: No violations found

FTTS INSP:
Inspection Number: 19921028N2002 1
Region: 02
Inspection Date: 10/28/92
Inspector: A. COHEN, AA
Violation occurred: No
Investigation Type: Asbestos ASHAA Close Out
Investigation Reason: Neutral Scheme, Region
Legislation Code: TSCA
Facility Function: User

Inspection Number: 19921029N2002 1
Region: 02
Inspection Date: 10/29/92
Inspector: A. COHEN, AA
Violation occurred: Yes
Investigation Type: AHERA, Enforcement, SEE Conducted
Investigation Reason: Neutral Scheme, Region
Legislation Code: TSCA
Facility Function: User

HIST FTTS INSP:
Inspection Number: 19921028N2002 1
Region: 02
Inspection Date: Not reported
Inspector: A. COHEN, AA
Violation occurred: No

COURIER EXPRESS (Continued) **1000361647**

Investigation Type: Asbestos ASHAA Close Out
Investigation Reason: Neutral Scheme, Region
Legislation Code: TSCA
Facility Function: User

Inspection Number: 19921029N2002 1
Region: 02
Inspection Date: Not reported
Inspector: A. COHEN, AA
Violation occurred: Yes
Investigation Type: AHERA, Enforcement, SEE Conducted
Investigation Reason: Neutral Scheme, Region
Legislation Code: TSCA
Facility Function: User

FINDS:

Registry ID: 110011395935

Environmental Interest/Information System

NCDB (National Compliance Data Base) supports implementation of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Toxic Substances Control Act (TSCA). The system tracks inspections in regions and states with cooperative agreements, enforcement actions, and settlements.

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.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1000361647
Registry ID: 110011395935
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110011395935

NY MANIFEST:

Country: USA
EPA ID: NYD980762439
Facility Status: Not reported
Location Address 1: 795 MAIN STREET
Code: BP
Location Address 2: Not reported
Total Tanks: Not reported
Location City: BUFFALO
Location State: NY
Location Zip: 14203
Location Zip 4: Not reported

COURIER EXPRESS (Continued) **1000361647**

NY MANIFEST:

EPAID:	NYD980762439
Mailing Name:	COURIER EXPRESS
Mailing Contact:	RAYMOND J. MANSFIELD
Mailing Address 1:	795 MAIN STREET
Mailing Address 2:	Not reported
Mailing City:	BUFFALO
Mailing State:	NY
Mailing Zip:	14203
Mailing Zip 4:	Not reported
Mailing Country:	USA
Mailing Phone:	7168551035

NY MANIFEST:

Document ID:	NYO2759544
Manifest Status:	C
seq:	Not reported
Year:	1983
Trans1 State ID:	9A090
Trans2 State ID:	Not reported
Generator Ship Date:	11/22/1983
Trans1 Recv Date:	11/22/1983
Trans2 Recv Date:	/ /
TSD Site Recv Date:	11/22/1983
Part A Recv Date:	12/03/2003
Part B Recv Date:	12/03/2003
Generator EPA ID:	NYD980762439
Trans1 EPA ID:	NYD080336241
Trans2 EPA ID:	Not reported
TSDF ID 1:	NYD080336241
TSDF ID 2:	Not reported
Manifest Tracking Number:	Not reported
Import Indicator:	Not reported
Export Indicator:	Not reported
Discr Quantity Indicator:	Not reported
Discr Type Indicator:	Not reported
Discr Residue Indicator:	Not reported
Discr Partial Reject Indicator:	Not reported
Discr Full Reject Indicator:	Not reported
Manifest Ref Number:	Not reported
Alt Facility RCRA ID:	Not reported
Alt Facility Sign Date:	Not reported
MGMT Method Type Code:	Not reported
Waste Code:	D001 - NON-LISTED IGNITABLE WASTES
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Quantity:	00330
Units:	G - Gallons (liquids only)* (8.3 pounds)
Number of Containers:	006
Container Type:	DM - Metal drums, barrels
Handling Method:	T Chemical, physical, or biological treatment.
Specific Gravity:	100

COURIER EXPRESS (Continued) **1000361647**

Click this hyperlink while viewing on your computer to access additional NY_MANIFEST: detail in the EDR Site Report.

C13 **KOROVESIS GUST CLO CLN** **EDR Hist Cleaner** **1014536723**
ENE **829 MAIN ST** **N/A**
< 1/8 **BUFFALO, NY**
0.072 mi.
378 ft. **Site 3 of 6 in cluster C**

Relative: EDR Hist Cleaner
Higher

Actual: **638 ft.**

Year:	Name:	Type:
1946	KOROVESIS GUST CLO CLNR	CLEANERS AND DYERS
1950	KOROVESIS GUST CLO CLN	CLEANERS AND DYERS
1955	KOROVESIS GUST CLO CLNR	CLEANERS AND DYERS
1960	KOROVESIS GUST CLO CLNR	CLEANERS AND DYERS
1964	KOROVESIS GUST CLO CLN	CLEANERS AND DYERS

E14 **FRITZ COLLISION SERVICE AUTO REPRS** **EDR Hist Auto** **1014538452**
WSW **68 EDWARD ST** **N/A**
< 1/8 **BUFFALO, NY**
0.074 mi.
389 ft. **Site 1 of 8 in cluster E**

Relative: EDR Hist Auto
Lower

Actual: **629 ft.**

Year:	Name:	Type:
1940	FRITZ COLLISION SERVICE AUTO RE	AUTOMOBILE REPAIRING
1940	EDWARD STREET GARAGE	AUTOMOBILE GARAGES

C15 **TIP TOP HAND LAUNDRY** **EDR Hist Cleaner** **1014535042**
ENE **831 MAIN ST** **N/A**
< 1/8 **BUFFALO, NY**
0.075 mi.
396 ft. **Site 4 of 6 in cluster C**

Relative: EDR Hist Cleaner
Higher

Actual: **638 ft.**

Year:	Name:	Type:
1940	TIP TOP HAND LAUNDRY	LAUNDRIES - HAND

E16 **EDWARDS STREET GARAGE** **EDR Hist Auto** **1014538339**
WSW **71 EDWARD ST** **N/A**
< 1/8 **BUFFALO, NY**
0.077 mi.
405 ft. **Site 2 of 8 in cluster E**

Relative: EDR Hist Auto
Lower

Actual: **629 ft.**

Year:	Name:	Type:
1930	71 79 EDWARD STREET GARAGE INO	AUTOMOBILE GARAGES
1935	EDWARD STREET GARAGE	AUTOMOBILE GARAGES

EDWARDS STREET GARAGE (Continued) **1014538339**

1946	EDWARD STREET GARAGE	AUTOMOBILE GARAGES
1955	EDWARDS STREET GARAGE	AUTOMOBILE GARAGES
1960	BFLO AUTOMATIC TRANSMISSION SER	AUTOMOBILE REPAIRING
1964	BFLO AUTOMATIC TRANSMISSION SER	AUTOMOBILE REPAIRING
1971	EDWARD STREET GARAGE INC	Not reported
1972	EDWARD STREET GARAGE INC	Not reported
1973	KINSMANS CARRIAGE SHOP	Not reported
1973	EDWARD STREET GARAGE INC	Not reported
1974	KINSMANS CARRIAGE SHOP	Not reported
1974	EDWARD STREET GARAGE INC	Not reported
1975	KINSMANS CARRIAGE SHOP	Not reported
1975	EDWARD STREET GARAGE INC	Not reported
1976	KINSMANS CARRIAGE SHOP	Not reported
1977	KINSMANS CARRIAGE SHOP	Not reported
1978	EDWARD STREET GARAGE INC	Not reported
1978	KINSMANS CARRIAGE SHOP	Not reported
1979	EDWARD STREET GARAGE INC	Not reported
1979	KINSMANS CARRIAGE SHOP	Not reported
1980	EDWARD STREET GARAGE INC	Not reported
1980	KINSMANS CARRIAGE SHOP	Not reported
1982	EDWARD STREET GARAGE INC	Not reported
1982	KINSMANS CARRIAGE SHOP	Not reported
1983	KINSMANS CARRIAGE SHOP	Not reported
1985	KINSMANS CARRIAGE SHOP	Not reported
1986	KINSMANS CARRIAGE SHOP	Not reported
1987	KINSMANS CARRIAGE SHOP	Not reported
1988	KINSMANS CARRIAGE SHOP	Not reported
1989	KINSMANS CARRIAGE SHOP	Exterior Repair Services

E17
WSW
< 1/8
0.080 mi.
421 ft.

EDWARD STREET GARAGE **EDR Hist Auto** **1014539179**
73 EDWARD ST **N/A**
BUFFALO, NY

Site 3 of 8 in cluster E

Relative: Lower
EDR Hist Auto

Actual: 629 ft.

Year:	Name:	Type:
1935	EDWARD STREET GARAGE	AUTOMOBILE GARAGES

C18
ENE
< 1/8
0.081 mi.
429 ft.

KOROVESIS GUST HAT CLNR **EDR Hist Cleaner** **1014536410**
834 MAIN ST **N/A**
BUFFALO, NY

Site 5 of 6 in cluster C

Relative: Higher
EDR Hist Cleaner

Actual: 639 ft.

Year:	Name:	Type:
1935	GOLDIN LOUIS CLO CLNR	CLOTHES PRESSERS AND CLEANERS
1935	KOROVESIS GUST HAT CLNR	HAT CLEANERS AND BLOCKERS
1940	KOROVESIS GUST HAT CLNR	HAT CLEANERS AND BLOCKERS

E19 **EDWARD STREET AUTO COLLISION SERVICE CO** **EDR Hist Auto** **1014537688**
WSW **75 EDWARD ST** **N/A**
< 1/8 **BUFFALO, NY**
0.083 mi.
437 ft. **Site 4 of 8 in cluster E**

Relative: EDR Hist Auto
Lower

Actual: Year: Name: Type:
629 ft. 1935 EDWARD STREET AUTO COLLISION SE AUTOMOBILE REPAIRING

E20 **EDWARD STREET GARAGE** **EDR Hist Auto** **1014539178**
WSW **77 EDWARD ST** **N/A**
< 1/8 **BUFFALO, NY 14202**
0.085 mi.
448 ft. **Site 5 of 8 in cluster E**

Relative: EDR Hist Auto
Lower

Actual: Year: Name: Type:
629 ft. 1935 EDWARD STREET GARAGE AUTOMOBILE GARAGES
1960 EDWARDS ST GARAGE AUTOMOBILE GARAGES
1964 EDWARD ST GARAGE AUTOMOBILE GARAGES
1970 EDWARD STREET GARAGE AUTOMOBILE GARAGES
1992 TOWNE MOTOR CAR SPECIALISTS AUT AUTOMOBILE REPAIRING & SERVICE

E21 **EDWARD STREET GARAGE** **EDR Hist Auto** **1014538453**
WSW **79 EDWARD ST** **N/A**
< 1/8 **BUFFALO, NY**
0.087 mi.
462 ft. **Site 6 of 8 in cluster E**

Relative: EDR Hist Auto
Lower

Actual: Year: Name: Type:
628 ft. 1935 EDWARD STREET GARAGE AUTOMOBILE GARAGES
1989 TOWNE MOTOR CAR SPECIALISTS General Automotive Repair Shops
1990 TOWNE MOTOR CAR SPECIALISTS General Automotive Repair Shops
1991 TOWNE MOTOR CAR SPECIALISTS General Automotive Repair Shops
1992 TOWNE MOTOR CAR SPECIALISTS General Automotive Repair Shops
1993 SMITH GERALD T General Automotive Repair Shops
1994 SMITH GERALD T General Automotive Repair Shops
1995 SMITH GERALD T General Automotive Repair Shops
1996 SMITH GERALD T General Automotive Repair Shops
1997 SMITH GERALD T General Automotive Repair Shops
1998 TOWNE MOTOR CAR SPECIALISTS AUTOMOBILE REPAIRING & SERVICE
1998 SMITH GERALD T General Automotive Repair Shops
2000 SMITH GERALD T General Automotive Repair Shops
2001 TOWNE MOTOR CAR SPECIALISTS GEN AUTOMOBILE REPAIRING & SERVICE
2001 SMITH GERALD T General Automotive Repair Shops
2002 SMITH GERALD T General Automotive Repair Shops
2004 SMITH GERALD T General Automotive Repair Shops
2005 SMITH GERALD T General Automotive Repair Shops
2006 SMITH GERALD T General Automotive Repair Shops
2007 TOWNE MOTOR CAR INC General Automotive Repair Shops
2008 TOWNE MOTOR CAR SPECIALIST AUTOMOBILE REPAIRING & SERVICE
2008 TOWNE MOTOR CAR INC General Automotive Repair Shops
2009 TOWNE MOTOR CAR INC General Automotive Repair Shops

EDWARD STREET GARAGE (Continued) **1014538453**

2010	TOWNE MOTOR CAR INC	General Automotive Repair Shops
2011	TOWNE MOTOR CAR INC	General Automotive Repair Shops
2012	TOWNE MOTOR CAR INC	General Automotive Repair Shops
2013	TOWNE MOTOR CAR INC	General Automotive Repair Shops
2014	TOWNE MOTOR CAR INC	General Automotive Repair Shops

E22 **EDWARD STREET GARAGE** **EDR Hist Auto** **1014537689**
WSW **81 EDWARD ST** **N/A**
< 1/8 **BUFFALO, NY**
0.091 mi.
480 ft. **Site 7 of 8 in cluster E**

Relative: EDR Hist Auto
Lower

Actual:
628 ft.

Year:	Name:	Type:
1950	EDWARD STREET GARAGE	AUTOMOBILE GARAGES
1955	EDWARDS WM E AUTO REPR	AUTOMOBILE REPAIRING
1992	TOWNE MOTOR CAR SPECIALISTS AUT	AUTOMOBILE REPAIRING & SERVICE

F23 **STAR ENTERPRISE** **NY MANIFEST** **S119071725**
West **455 DELAWARE** **N/A**
< 1/8 **BUFFALO, NY 14202**
0.093 mi.
489 ft. **Site 1 of 8 in cluster F**

Relative: NY MANIFEST:
Lower

Actual:
629 ft.

Country:	USA
EPA ID:	NYD986887461
Facility Status:	Not reported
Location Address 1:	455 DELAWARE
Code:	BP
Location Address 2:	Not reported
Total Tanks:	Not reported
Location City:	BUFFALO
Location State:	NY
Location Zip:	14201
Location Zip 4:	Not reported

NY MANIFEST:

EPAID:	NYD986887461
Mailing Name:	STAR ENTERPRISE
Mailing Contact:	LAUREN J BROOKER
Mailing Address 1:	303 FELLOWSHIP ROAD CS-18
Mailing Address 2:	Not reported
Mailing City:	MOORESTOWN
Mailing State:	NJ
Mailing Zip:	08057
Mailing Zip 4:	Not reported
Mailing Country:	USA
Mailing Phone:	9142537899

NY MANIFEST:

Document ID:	NYB2827593
Manifest Status:	K
seq:	Not reported
Year:	1993

STAR ENTERPRISE (Continued) **S119071725**

Trans1 State ID:	80347VNY
Trans2 State ID:	Not reported
Generator Ship Date:	11/04/1993
Trans1 Recv Date:	11/04/1993
Trans2 Recv Date:	11/05/1993
TSD Site Recv Date:	11/15/1993
Part A Recv Date:	12/01/1993
Part B Recv Date:	12/02/1993
Generator EPA ID:	NYD986887461
Trans1 EPA ID:	NYD982792814
Trans2 EPA ID:	MID087478574
TSDF ID 1:	OHD004178612
TSDF ID 2:	Not reported
Manifest Tracking Number:	Not reported
Import Indicator:	Not reported
Export Indicator:	Not reported
Discr Quantity Indicator:	Not reported
Discr Type Indicator:	Not reported
Discr Residue Indicator:	Not reported
Discr Partial Reject Indicator:	Not reported
Discr Full Reject Indicator:	Not reported
Manifest Ref Number:	Not reported
Alt Facility RCRA ID:	Not reported
Alt Facility Sign Date:	Not reported
MGMT Method Type Code:	Not reported
Waste Code:	D001 - NON-LISTED IGNITABLE WASTES
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Quantity:	00055
Units:	G - Gallons (liquids only)* (8.3 pounds)
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	T Chemical, physical, or biological treatment.
Specific Gravity:	100

Click this hyperlink while viewing on your computer to access
2 additional NY_MANIFEST: record(s) in the EDR Site Report.

F24 **DAUCHER LES TEXACO SERVICE** **EDR Hist Auto** **1014539169**
West **455 DELAWARE AVE** **N/A**
< 1/8 **BUFFALO, NY 14202**
0.093 mi.
489 ft. **Site 2 of 8 in cluster F**

Relative: EDR Hist Auto
Lower

Actual:
629 ft.

Year:	Name:	Type:
1946	RICHARD SERVICEWAYS INC BR FILL	GASOLINE AND OIL SERVICE STATIONS
1955	DELAWARE TEXACO SERVICE GAS STA	GASOLINE STATIONS
1960	DELAWARE TEXACO SERVICE CENTER	GASOLINE STATIONS
1964	MOGAVERO DELAWARE TEXACO SERV	GASOLINE STATIONS
1969	DELAWARE TEXACO	Gasoline Service Stations
1970	DELAWARE TEXACO SERV	GASOLINE STATIONS
1970	DELAWARE TEXACO	Gasoline Service Stations

DAUCHER LES TEXACO SERVICE (Continued) **1014539169**

1971	DELAWARE TEXACO	Gasoline Service Stations
1972	DELAWARE TEXACO	Gasoline Service Stations
1973	DELAWARE TEXACO	Gasoline Service Stations
1974	DAUCHERS LES TEXACO SERVICE	Gasoline Service Stations
1975	DAUCHER LES TEXACO SERVICE	GASOLINE STATIONS
1975	DAUCHERS LES TEXACO SERVICE	Gasoline Service Stations
1976	DAUCHERS LES TEXACO SERVICE	Gasoline Service Stations
1977	DAUCHERS LES TEXACO SERVICE	Gasoline Service Stations
1978	DAUCHERS LES TEXACO SERVICE	Gasoline Service Stations
1979	DAUCHERS LES TEXACO SERVICE	Gasoline Service Stations
1980	DAUCHER LES TEXACO SERVICE	GASOLINE STATIONS
1980	DAUCHERS LES TEXACO SERVICE	Gasoline Service Stations
1982	DAUCHERS LES TEXACO SERVICE	Gasoline Service Stations
1983	DAUCHERS LES TEXACO SERVICE	Gasoline Service Stations
1998	DOUGLAS TRNSPRATION OF WSTN NY	Towing Services

F25 **TEXACO DOWNSTREAM PROPERTIES #211127** **RCRA NonGen / NLR** **1000144558**
West **455 DELAWARE AVE** **FINDS** **NYD986887461**
< 1/8 **BUFFALO, NY 14202** **ECHO**
0.093 mi.
489 ft. **Site 3 of 8 in cluster F**

Relative: **Lower**

Actual: **629 ft.**

RCRA NonGen / NLR:

Date form received by agency:	01/01/2007
Facility name:	TEXACO DOWNSTREAM PROPERTIES #211127
Facility address:	455 DELAWARE AVE BUFFALO, NY 14202
EPA ID:	NYD986887461
Mailing address:	PO BOX 6004 SAN RAMON, CA 94583
Contact:	KATHY L NORRIS
Contact address:	PO BOX 6004 SAN RAMON, CA 94583
Contact country:	US
Contact telephone:	925-842-5931
Contact email:	KNORRIS@CHEVRONTEXACO.COM
EPA Region:	02
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	NO NAME FOUND
Owner/operator address:	Not reported Not reported
Owner/operator country:	US
Owner/operator telephone:	Not reported
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	01/01/2002
Owner/Op end date:	Not reported
Owner/operator name:	PETE KLUEZYCKI
Owner/operator address:	DELAWARE AVE BUFFALO, NY 14202

TEXACO DOWNSTREAM PROPERTIES #211127 (Continued) **1000144558**

Owner/operator country: US
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 01/01/2002
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
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 01/01/2006
Site name: TEXACO DOWNSTREAM PROPERTIES #211127
Classification: Not a generator, verified

Date form received by agency: 07/26/2004
Site name: TEXACO DOWNSTREAM PROPERTIES #211127
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D018
. Waste name: BENZENE

Date form received by agency: 07/08/1999
Site name: TEXACO SERVICE STATION
Classification: Not a generator, verified

Date form received by agency: 02/19/1992
Site name: TEXACO S.S.
Classification: Large Quantity Generator

Date form received by agency: 01/22/1990
Site name: TEXACO SERVICE STATION
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

TEXACO DOWNSTREAM PROPERTIES #211127 (Continued) **1000144558**

. Waste code: F001
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLORETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Violation Status: No violations found

FINDS:

Registry ID: 110004440944

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.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1000144558
Registry ID: 110004440944
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110004440944

E26 **370 FRANKLIN STREET** **NY UST** **U004191993**
SW **370 FRANKLLIN STREET** **N/A**
< 1/8 **BUFFALO, NY 14202**
0.093 mi.
493 ft. **Site 8 of 8 in cluster E**

Relative: **Lower**

Actual: **629 ft.**

UST:
Id/Status: 9-601333 / Unregulated/Closed
Program Type: PBS
Region: STATE
DEC Region: 9
Expiration Date: N/A
UTM X: 183680.65038
UTM Y: 4756445.92398
Site Type: Apartment Building/Office Building

Affiliation Records:
Site Id: 469396
Affiliation Type: Facility Owner
Company Name: LUCY CURLEY
Contact Type: PRESIDENT
Contact Name: LUCY CURLEY
Address1: 370 FRANKLIN STREET
Address2: Not reported
City: BUFFALO

370 FRANKLIN STREET (Continued) **U004191993**

State: NY
Zip Code: 14202
Country Code: 001
Phone: (716) 845-5392
EMail: CURLEYL@LUCYCURLEYANDCO.COM
Fax Number: Not reported
Modified By: TJWALKER
Date Last Modified: 2012-09-28

Site Id: 469396
Affiliation Type: Mail Contact
Company Name: LUCY CURLEY
Contact Type: PRESIDENT
Contact Name: LUCY CURLEY
Address1: 370 FRANKLIN STREET
Address2: Not reported
City: BUFFALO
State: NY
Zip Code: 14202
Country Code: 001
Phone: (716) 845-5392
EMail: CURLEYL@LUCYCURLEYANDCO.COM
Fax Number: Not reported
Modified By: TJWALKER
Date Last Modified: 2012-09-28

Site Id: 469396
Affiliation Type: Facility Operator
Company Name: 370 FRANKLIN STREET
Contact Type: Not reported
Contact Name: LUCY CURLEY
Address1: Not reported
Address2: Not reported
City: Not reported
State: NN
Zip Code: Not reported
Country Code: 001
Phone: (716) 845-5392
EMail: Not reported
Fax Number: Not reported
Modified By: TJWALKER
Date Last Modified: 2012-09-28

Site Id: 469396
Affiliation Type: Emergency Contact
Company Name: LUCY CURLEY
Contact Type: Not reported
Contact Name: LUCY CURLEY
Address1: Not reported
Address2: Not reported
City: Not reported
State: NN
Zip Code: Not reported
Country Code: 001
Phone: (716) 845-5392
EMail: Not reported
Fax Number: Not reported

370 FRANKLIN STREET (Continued) **U004191993**

Modified By:	TJWALKER
Date Last Modified:	2012-09-28

Tank Info:

Tank Number:	1
Tank ID:	245768
Tank Status:	Closed - Removed
Material Name:	Closed - Removed
Capacity Gallons:	280
Install Date:	07/24/1928
Date Tank Closed:	10/04/2012
Registered:	True
Tank Location:	Underground
Tank Type:	Steel/carbon steel
Material Code:	0009
Common Name of Substance:	Gasoline

Tightness Test Method:	NN
Date Test:	Not reported
Next Test Date:	Not reported
Pipe Model:	Not reported
Modified By:	KAMCARDL
Last Modified:	04/14/2017

Equipment Records:

D00 - Pipe Type - No Piping
L00 - Piping Leak Detection - None
J00 - Dispenser - None
B00 - Tank External Protection - None
C00 - Pipe Location - No Piping
F00 - Pipe External Protection - None
E00 - Piping Secondary Containment - None
H00 - Tank Leak Detection - None
I00 - Overfill - None
A00 - Tank Internal Protection - None
K00 - Spill Prevention - None
G00 - Tank Secondary Containment - None

G27 **TONYS SERV STA** **EDR Hist Auto** **1014539021**
NNE **34 PEARL ST** **N/A**
< 1/8 **BUFFALO, NY**
0.100 mi.
528 ft. **Site 1 of 2 in cluster G**

Relative: EDR Hist Auto
Higher

Actual: Year: Name: Type:
639 ft. 1964 TONYS SERV STA GASOLINE STATIONS

H28 **JIMS AUTO REPR** **EDR Hist Auto** **1014538555**
SSW **361 FRANKLIN ST** **N/A**
< 1/8 **BUFFALO, NY**
0.102 mi.
538 ft. **Site 1 of 3 in cluster H**

Relative: EDR Hist Auto
Lower

Actual: Year: Name: Type:
630 ft. 1964 JIMS AUTO REPR AUTOMOBILE REPAIRING
1972 SHERIDAN AUTOMOTIVE CORP Motor Vehicles And Car Bodies
1973 SHERIDAN AUTOMOTIVE CORP Motor Vehicles And Car Bodies

I29 **A S & H CORPORATION** **EDR Hist Cleaner** **1019918919**
SSE **764 MAIN ST** **N/A**
< 1/8 **BUFFALO, NY 14202**
0.103 mi.
545 ft. **Site 1 of 4 in cluster I**

Relative: EDR Hist Cleaner
Lower

Actual: Year: Name: Type:
632 ft. 1975 A S & H CORPORATION Drycleaning Plants, Except Rugs

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I30 **MAIN TACK SERVICE & PARKING** **EDR Hist Auto** **1014539302**
SSE **767 MAIN ST** **N/A**
< 1/8 **BUFFALO, NY 14203**
0.104 mi.
550 ft. **Site 2 of 4 in cluster I**

Relative: EDR Hist Auto
Lower

Actual: Year: Name: Type:
632 ft. 1975 MAIN TACK SERVICE & PARKING GASOLINE STATIONS

C31 **MAIN HAND LAUNDRY** **EDR Hist Cleaner** **1014535525**
NE **852 MAIN ST** **N/A**
< 1/8 **BUFFALO, NY**
0.105 mi.
555 ft. **Site 6 of 6 in cluster C**

Relative: EDR Hist Cleaner
Higher

Actual: Year: Name: Type:
640 ft. 1935 MAIN HAND LAUNDRY LAUNDRIES - HAND

F32 **AMERICAN LAUNDRY MACHINERY CO** **EDR Hist Cleaner** **1014534821**
West **443 DELAWARE AVE** **N/A**
< 1/8 **BUFFALO, NY**
0.105 mi.
556 ft. **Site 4 of 8 in cluster F**

Relative: EDR Hist Cleaner
Lower

Actual: Year: Name: Type:
627 ft. 1950 AMERICAN LAUNDRY MACHINERY CO LAUNDRY SUPPLIES AND EQUIPMENT DEALERS

F33 **NYS DEPT OF ENVIR CONSER-REG 9** **NY Spills** **1000110443**
West **437 DELAWARE AVE** **RCRA NonGen / NLR** **NYD982276313**
< 1/8 **BUFFALO, NY 14202** **FINDS**
0.106 mi. **ECHO**
561 ft. **Site 5 of 8 in cluster F** **NY MANIFEST**

Relative: SPILLS:
Lower

Actual:
627 ft.

Facility ID:	8600065
Facility Type:	ER
Spill Number:	8600065
DER Facility ID:	175789
Site ID:	212131
DEC Region:	9
Closed Date:	2014-11-14
Spill Cause:	Equipment Failure
Spill Class:	A1
SWIS:	1502
Spill Date:	1986-04-02
Investigator:	TEDIEFFE
Referred To:	Not reported
Reported to Dept:	1986-04-02
CID:	Not reported
Water Affected:	Not reported
Spill Source:	Gasoline Station or other PBS Facility
Spill Notifier:	Affected Persons
Cleanup Ceased:	Not reported
Cleanup Meets Std:	False
Last Inspection:	1991-07-25
Recommended Penalty:	False
UST Trust:	True
Remediation Phase:	0
Date Entered In Computer:	1986-04-28
Spill Record Last Update:	2015-04-06
Spiller Name:	Not reported
Spiller Company:	TEXACO USA
Spiller Address:	303 FELLOWSHIP ROAD
Spiller Company:	001
Contact Name:	Not reported
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was TED / / : LQR ON SITE 09/14/87,B 1 1' PRODUCT ,TELCON NEPCCO WITH FINDINGS. / / : SITE INSPECTION 11/13/86, MET WITH RYDER; TELECON 01/14/87, RYDER WILL CHECK. / / : SITE INSPECTION 11/13/86, MET WITH RYDER. / / : LQR TELCON EMPIRE SOILS 06/15/87,REPORT TO FOLLOW AND MW'S TO BE FIXED. / / : LQR TELCON 07/20/87,DRILLING TO START 08/03/87. / / : MEETING 05/08/86, EMPIRE TO PROVIDE ESTIMATE, ESTIMATE RECEIVED 08/04/86; LETTERS 07/31/86, REPLY 08/11/86. / / : LQR TELCON 07/20/87,DRILLING TO START WEEK OF 7/27/87. / / : SITE INSPECTION 04/02/86, CLEANUP REQUIRED, FUMES; LETTER 04/07/86, RETURNED; TELECONS 04/04/86 TO 05/01/86, INVESTIGATION. / / :

NYS DEPT OF ENVIR CONSER-REG 9 (Continued) **1000110443**

ESTIMATE RECEIVED 08/04/86 FROM EMPIRE SOILS, TO ALBANY FOR REVIEW; LETTERS 07/31/86, REPLY 08/11/86 - OK OCCIN. / / : LQR TEL;CON EPA 10/21/87 EPA NO. NYD 982276312 OBTAINED,CLEAN UP 10/28/87 SCHEDULED. / / : SAMPLE (E&E) 05/01/86, RECEIVED 05/13/86 - NON- OIL RECEIVED 06/10/86 - HYDROCARBONS. / / : LQR SITE INSP. 03/11/87, SAMPLE TAKEN; SAMPLE AES 03/11/87, VERBAL RECIEVED - GASOLINE; TELECON EMPIRE SOILS, TO INSTALL MONITORING WELLS. / / : LQR AND NEPCCO ON SITE 06/08/87,MW 12'OF PRODUCT FOUND,RECOVERY SYSTEM TO BE PLACED,LAB RESULTS REC. 06/12/87. / / : MEETING SET WITH NEPPCO 07/02/87 ON SITE. / / : LQR ON SITE 09/10/87 NEPCCO AND DRILLER , 4' MW A-1 PLACED AND VAC'D OFF. / / : LQR TELCON 07/07/87,DRILLING TO START NEXT WEEK. / / : LQR TELCON C.O. AND NEPCCO 09/01/87 EPA NUMBER OBTAINED,WORK BEING SCHEDULED. / / : LQR ON SITE 09/24/87,B 1 4' PRODUCT ,TELCON NEPCCO WITH FINDINGS. / / : LQR ON SITE 10/28/87 WITH NEPCCO MW'S VAC'D. / / : LQR SITE INSP. 07/23/87 MW SAMPLE TAKEN FOR NEPPCO. / / : LQR AND RNL TELCON 10/01/87 NEPCCO TO INSTALL RECOVERY PUMP. / / : LQR AND MF ON SITE 11/02/87 MW B-1 3' PRODUCT A-1 SHEEN. / / : LQR STIE INSP 05/08/87, EMPIRE SOILS ON SITE; TELECON 05/19/87, EMPIRE SOILS FOUND 10 PRODUCT IN WELL, SAMPLE TAKEN. / / : SITE INSPECTION 05/01/86, CLEANUP REQUIRED, FUMES; SITE INSPECTION 05/05/86, SUMP BEING FLUSHED. / / : LQR AND NEPCCO ON SITE 12/11/87 MW CHECKED AND VAC'D. / / : LETTERS 07/31/86, REPLY 08/11/86 - OK OCCIN; TELECON 10/21/86, RESTIVO, NO LONGER OWNER OF EDWARD STREET GARAGE. / / : LQR TELCON EPA 10/21/87 EPA NO. NYD 982276312 OBTAINED,CLEAN UP 10/28/87 SCHEDULED. / / : LQR TELCON C.O. AND NEPCCO 09/03/87 DRILLING SCHEDULED FOR 09/10/87. / / : ESTAMATE RECIEVED 8/04/86 FROM EMPIRE SOILS. / / : LQR ON SITE 07/03/87,MW CHECKED. / / : LQR ON SITE 10/19/87 MW CHECK B-1 14' PRODUCT,NEPCCOTO CLEAN UP 10/28/87. 03/09/88: LQR ON SITE 03/09/88 MW'S CHECKED 3 AND 1/2 FT OF PRODUCT IN MW. 03/11/88: LQR TELCON NEPCCO 03/11/88 REMEDIATION SCHEDULED 03/15/88. 03/31/88: LQR ON SITE 03/30/88 PRODUCT AND FUMES IN BASEMENT,CLEAN UP PREFORMED BY DEC;LQR TELCON 03/31/88 FD,BSA AND NEPCCO FOR SITE MEETING. 04/06/88: LQR AND NEPCCO ON SITE VENT SYSTEM PLACED 04/05/88;LQR SITE INSP. 04/06/88 HU METER USED,INFO. PASSED ON TO TEXACO'S CONTRACTOR. 04/07/88: LQR NAD RNL MET TEXACO 04/07/88 MEETING TEXACO TAKING OVER SPILL,NEPCCO TO STILL PLACE VENTING SYSTEM 04/11/88. 04/12/88: LQR ON SITE 04/12/88 VENT SYSTEM WORKING,TELCON W/ GROUNDWATER TECH. TO CHECK,04/13/88 TEXACO WELLS TO BE PLACED ON SITE. 04/15/88: LQR ON SITE 04/14/88 VENT SYSTEM WORKING, TEXACO PLACED ONE MW;LQR ON SITE 04/15/88 PRODUCT IN BASEMENT IN DRAIN,DEC CLEANED UP. 04/22/88: LQR ON SITE 04/22/88 ENCLOSURE FIXED,REPADDED DRAIN,VENT STILL WORKING,TEXACO 3-MW PLACED;LQR TELCON W/ J.ADAMS CONTRACTOR FOR SPILLER MW'S TO BE DEVOLOPED SOON,PRODUCT IN 2 OF THE WELLS 1 AND 3 FT. 05/03/88: LQR ON SITE 05/03/88 WET WELL SHUT DOWN,SPILLER CONTRACTOR PUMPING MW'S,CHANGED PADDES IN GRATED SUMP. 05/11/88: LQR AND PRM ON SITE 05/11/88 MW'S CHECKED,BASEMENTS CHECK,VENT SYSTEM STILL OPERATING. 05/26/88: LQR MEETING W/TEXACO REC.WELL TO BE PLACED 6/04/88. 07/07/88: LQR TELCON SPILLERS CONTRACTOR NO WORK ON RECOVERY SYSTEM TO DATE,NEW GEOLOGIST OF SPILLER TAKEN OVER PROJECT. 07/11/88: LQR TELCON W/ SPILLER CONTRACTOR WORK TO START 7/15-18/88. 07/15/88: LQR TELCON W/ SPILLER CONTRACTOR WORK TO START 07/18/88. 07/19/88: LQR ON SITE RECOVERY WELL BEING PLACED BY SPILLER. 08/25/88: LQR TELCON GROUNDWATER TECH. NO RCOVEREY AS OF YET,LETTER SENT TO OWNER OF PROPERTY. 08/29/88: LQR AND CAF ON SITE FAN STILL WORKING,COULDNOT SEE SUMP,SHOP CLOSED. 09/15/88: LQR ON SITE GAS IN SUMP PUMP FOUND,LETTER TO OWNER TO CLEAN UP BY 09/22/88. 09/19/88: LQR AND RNL

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TELCON W/ MR.UCCI,PERMISSION TO LET TEXACO TO CLEAN UP. 10/25/88: LQR ON SITE PRODUCT IN SUMP PUMP,TELCON SPILLER TO REMEDIATE. 10/25/88: LETTER TO SPILLER CONTRACTOR TO REMEDIATE 10/25/88. 01/05/89: LQR ON SITE PRODUCT IN BASEMENT,TELCON SPILLER TO REMEDIATE. 01/05/89: LQR ON SITE REMEDIATION REQUIRED,TELCON SPILLER. 01/13/89: LETTER TO OWNER REGARDING REMEDIATION. 01/25/89: LQR,RNL AND H.PILLIPS TEXACO MEETING,REMEDATION UNDERWAY,LQR ON SITECONFIRMED. 02/01/89: REORT REC. FROM SPILLER. 03/17/89: LQR ON SITE PRODUCT IN GRATED AREA,TELCON W/SPILLER TO REMEDATE. 03/21/89: LQR TELCON W/ SPILLER CONTRACTOR FURTHER REMEDATION DISCUSSED. 03/31/89: LQR ON SITE FAN NOT RUNNING TELCON NEPPCO TO FIX. 03/31/89: LQR ON SITE FAN NOT RUNNING,NEPPCO TO FIX MOTOR SOON. 04/12/89: LQR TELCON W/ SPILLER CONTRACTOR TO FIX FAN AND SPILLER TAKING OVER SPILL. 04/18/89: LQR MET CONTRATOR GAVE KEY TO THEM FOR ENCLOSURE,THEY WILL FIX FAN. 05/01/89: LQR MET SPILLER CONTRATOR ON SITE PLACE ANOTHER REC. WELL SYSTEM. 08/09/89: SPILLER SENT REPORT 08/09/89,BSA NOTIFIED OF DISCHARGE WATER TO SEWER. 08/15/89: LQR TELCON W/ BSA ALSO DID SAMPLING. 10/06/89: LQR TELCON W/ E.ROBERTS,SITE REMEDIATED HE WILL CHECK AGAIN 01/09/89. 03/05/90: LQR ON SITE W/ SPILLER CONTRACTOR SITE CLEAR OF PRODUCT. 05/07/90: REPORT FROM SPILLER REC. 11/89 TO 01/90. 06/07/90: REPORT FROM SPILLER REC. 03/90. 08/28/90: RNL SITE INSP AND MEETING 08/28/90 WITH GROUNDWATER TECHNOLOGY, REMEDIATION TO PROCEED IN SAME MANNER, PRODUCT STILL IN WELLS, THEY WILL SEND REPORTS FOR LAST THREE MONTHS. 10/11/90: RNL REC. MONITORING REPORTS 10/11/90 FOR 04/90 TO 07/90, OIL STILL FOUND IN MW'S, DISCHARGE WATER TO BSA SAMPLED AND OK, TEXACO TO CONTINUE OPERATION. 01/24/91: RNL LETTER 01/24/91, REQUESTED ON SITE MEETING; RNL TELECON FROM CONTRACTOR, WILL CALL ME NEXT TIME ON SITE FOR WELL MONITORING. 06/02/91: RNL REC. APRIL MONITORING REPORT 06/02/91, PRODUCT FOUND IN G1 AND G2, A1, B1 AND B3 ALSO AFFECTED, AIR OK, DISCHARGE OK (BUT STILL NO MEETING ON SITE). 07/25/91: RNL AND TED SITE INSP. 07/25/91, MET DAN KEENE OF GT, GASOLINE STILL BEING FOUND IN MW'S, NO FUMES IN BASEMENT, WILL NEED ENHANCED REMEDIATION FOR GROUNDWATER, NRL TO CONTACT RP. 09/28/93: RNL - SVES TO BE OPERATIONAL BY 10/93. WALLS TO BE SAMPLED, CATALYTIC CONVERTER TO BE INSTALLED. 03/31/94: SVE OPERATIONAL SINCE 11/9/94. 12/31/94: SVES OPERATIONAL; RW OPERATIONAL. PRODUCT REMAINS ON GW. 07/18/95: Groundwater Technology Inc. (GTI) completed 20 soil borings to determine extent of residual contamination. 08/14/95: RECIEVED JUNE, 1995, REPORT FROM GROUNDWATER TECHNOLOGY, SVES AND P&T OPERATIONAL, PRODUCT ONLY IN G-01, HIGH BTEX IN A-01, B-01, B-03, AND G-02. 08/30/95: RECIEVED JULY, 1995, REPORT FROM GROUNDWATER TECHNOLOGY, SVES AND P&T OPERATIONAL, NO PRODUCT IN ANY WELLS, HIGH BTEX IN A-01, B-01, B-03, G-01, AND G-02. 08/31/95: Recieved Environmental Assessment Report from GTI., based on 07/18/95 soil borings GTI estimated remedial excavation wou1d require removal of 344 cubic yards of soil. 09/25/95: RECEIVED WORK PROPOSAL DATED 09/19/95 FROM TEXACO, SOIL PROBE DONE 07/18/95, PLAN TO REMOVE CONTAMINATED SOIL. 10/20/95: RECEIVED AUGUST, 1995, REPORT FROM GROUNDWATER TECHNOLOGY, JULY SAMPLE RESULTS INDICATED HIGH BTEX IN A-01, B-01, B-03 AND VERY HIGH IN G-01, TWO GALLONS RECOVERED 11/27/95: RECEIVED SEPTEMBER, 1995, REPORT FROM GROUNDWATER TECHNOLOGY, SAMPLED RW1 EFFLUENT - 9.3 PPB BTEX, RECOVERED 1.5 GALLONS 01/05/96: RECEIVED OCTOBER-NOVEMBER, 1995, REPORT FROM GROUNDWATER TECHNOLOGY, SAMPLED SVES EFFLUENT 30 PPMV (C1 TO C10) AND 37 PPMV (C9 TO C10), REMOVED 2,066.91 TONS OF PETROLEUM CONTAMINATED SOIL DURING 10-11/95, DURING 11/95 STARTED SVES 02/15/96: RECEIVED REPORT ON EXCAVATION/VES WELL PROJECT FROM GROUNDWATER TECHNOLOGY,

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WORK DONE FROM 10/30/95 TO 11/03/95, REMOVED 2066.91 TONS OF SOIL and approximately 3,0000 gal. of water. ANGLED SVE WELL (VEP-11)INSTALLED near northwest corner of BUILDING (northeast corner of excavation). HIGH post excavation soil sample results. Total STARS volatile analytes via EPA Method 8021; Northwest Corner 463 ppm, South wall 11.6 ppm, west wall 618.5 ppm and Southwest wall 161.6 ppm. 02/26/96: RECEIVED FINAL REPORT ON SOIL EXCAVATION AND VES WELL INSTALLATION, duplicate of report received 2/15/96. 05/08/96: Received 5/3/96 SVES air effluent sample results. samples analyzed via EPA Method TO3, BTEX and Misc. Aliphatics and Aromatics were BQL. 05/30/96: TED gave temporary approval to GTI TO shut down SVES IN RESPONSE TO 5/29/96 noise complaint from neighboring resident. 06/04/96: WELLS MW6 AND MW7 INSTALLED 06/20/96: DEC letter to Texaco requesting SVES be turned on long enough to obtain air effluent sample for analysis via EPA Method TO3. Requested clarification on MW-6 & MW-7 construction details. 07/01/96: RECEIVED LETTER FROM WRIGHT ENVIRONMENTAL, with enclosed revised logs for MW6 AND MW7. MW6 AND MW7 to be sampled during next quarterly sample round. 07/31/96: RECEIVED 2nd QUARTER 1996 SMR. WELLS MW-6 & VEP-1 6/19/96 SAMPLE RESULTS 4660 & 24,700 ppb TOTAL BTEX RESPECTIVELY. WELLS B-02, B-05 & G-03 BQL. WELL MW-7 27.2 ppb TOTAL BTEX. SHORT TERM VES TEST CONDUCTED. AIR EFF. sampled 6/26/96, BQL FOR TOTAL BTEX. 08/15/96: DEC SENT LETTER APPROVING SHUT DOWN OF SVES, based on 5/3/96 & 6/26/96 SVES air effluent sample results. REQUESTED REMEDIATION AT WELLS MW-6 & VEP-1. 09/12/96: RECEIVED REMEDIAL WORKPLAN. ORC SOCK TO BE INSTALLED IN MW-6 & NUTRIENT & HYDROGEN PEROXIDE INJECTION IN VEP-1. TO MONITOR D.O. SAMPLE & RE-EVALUATE AT END OF SIX MONTHS TREATMENT. 09/18/96: DEC SENT LETTER APPROVING CAP. REQUESTED CURRENT STATUS OF NEGOTIATIONS FOR SITE ACCESS WITH OWNER. 10/21/96: R. E. WRIGHT ENVIRON., LETTER FROM TEXACO TO OWNER WITH ACCESS REQUEST & SETTLEMENT OFFER SENT IN LAST 2 WEEKS. NO REPLY RECEIVED TO DATE. 10/29/96: TELECON W/ ED GILBERT. FAXED COPY OF SPILL REPORT FORM. HE IS STILL NEGOTIATING W/ TEXACO. PLANS ON TALKING W/ THEM NEXT WEEK. 01/06/97: TELECON W/ ED GILBERT. SENDING REPLY TO TEXACO SHORTLY, WILL CALL DEC AFTER REPLY GOES OUT. 04/02/98: Received letter from SAIC, site access granted Texaco in late 1997. Attached quarterly gw monitoring report prepared by GTI dated 3/18/98. 8/20/98: Letter from SAIC, attached 2nd quarter 1998 gw monitoring report prepared by GTI. Letter requested site reclassified inactive, no further action required. 9/18/98: DEC letter to Jennifer Bothwell (Equiva Services, LLC), noted site could not be reclassified inactive based on contaminant levels in VEP-1, requested remedial activities be initiated in area of VEP-1. Approved decommissioning of wells G-03 & B-02 and vapor extraction points VEP-6, VEP-9 and VEP-10. Requested dates on which GTI performed bioremedial activities. 11/25/98: Received workplan dated 11/23/98, hydrogen peroxide treatment VEP-1 and plan to decommission wells G-03 & B-02 and vapor extraction points VEP-6, VEP-9 and VEP-10 as approved by DEC on 9/18/98. 1/6/99: DEC sent letter approving workplan dated 11/23/98. 02/19/99: 125 gallons of 7% hydrogen peroxide treatment performed on VEP-1. Wells G-03 & B-02 and vapor extraction points VEP-6, VEP-9 and VEP-10 closed. 03/19/99: 125 gallons of 7% hydrogen peroxide treatment performed on VEP-1. 8/11/99: Received letters dated 5/14/99 & 7/8/99 with updated status report, wells G-03 & B-02 and vapor extraction points VEP-6, VEP-9 and VEP-10 closed on 2/12/98. Two 7% hydrogen peroxide treatments, 125 gallons each,(2/19/99 & 3/19/99) performed on VEP-1. VEP-1 sampled immediately prior to 3/19/99 hydrogen peroxide treatment,

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Total BTEX 32,570 ppb. Received 5/12/99 sample results for VEP-1, total BTEX 29,298 ppb. 8/11/99: DEC sent letter to Jennifer Bothwell (Equiva Services, LLC) requesting alternative treatment plan. 10/26/99: DEC sent letter to Jennifer Bothwell noting no response to DEC 8/11/99 letter, requested written response by 11/12/99. 11/5/99: DEC received work plan to install additional borings to delineate contamination in vicinity of VEP-1 and perform six 4-hour dual phase vapor extraction (DPVE) treatments on VEP-1. 11/15/99: DEC sent letter approving plan, noted petroleum contaminated soil which could not be removed had been observed along northeast edge of parking lot during the Fall 1995 excavation work. 08/15/00: DEC received report for subsurface investigation around VEP-1. On 12/6/99 seven geoprobe borings were advanced around VEP-1. Total STARS volatile analytes from 8-9 foot soil interval ranged from 1,721 ppm at SB-5 (north of VEP-1) to 11 ppm at SB-7 (southeast of VEP-1). Total STARS volatile concentrations in groundwater ranged from 11,733 ppb at SB-5 (north of VEP-1) to 8,221 ppb at SB-7. Five 4-hour Dual Phase Vacuum Extraction (DPVE) events and one 5-hour DPVE event utilizing well VEP-1, each two weeks apart (beginning 12/7/99 and ending 2/21/00), were completed using a vacuum truck. An estimated 12 pounds of vapor phase hydrocarbons were recovered and 2,372 gal. water extracted during the six DPVE events. 01/02/01: DEC sent letter noting that based on investigations performed to date contaminant source appeared to be located north of VEP-1. Requested additional site investigation and remediation. 01/04/01: DEC informed property sold to Plaza One Group, 2558 Delaware Ave., Buffalo, NY. 02/07/01: Site transferred from SAIC to Groundwater and Environmental Services (GES). 02/22/01: DEC received work plan from GES to add surfactant to VEP-1, install 2 addition MWs and sample wells. 03/02/01: DEC telecon with GES, requested revisions to work plan. 06/12/01: DEC received revised work plan from GES. 07/19-20/2001: Two monitoring wells (MW-8 and MW-9) were installed. In addition, VEP-1 was developed with a surge block prior to sampling. The surfactant BioSolve was added to enhance the cleaning and redevelopment of VEP-1. Soil samples from MW-8 and MW-9 ranged from 274,690 to 2,231 ug/kg total STARS VOC analytes, respectively. Groundwater results ranged from 5,833 to 15,526 ug/L total STARS VOC analytes in wells MW-8 and MW-9, respectively. Total STARS VOCs in VEP-1 was 17,185 ug/L. 03/27/02: DEC telephone message to Chevron Products Company (CPC) requesting site status. 05/10/02: DEC notified by Blasland, Bouck & Lee (BBL) that environmental site management transfered from Texaco to Chevron Products Company (CPC) as result of merger of the two companies. BBL now assisting CPC with site environmental activities. 05/31/02: DEC letter to W. D. Howard (CPC) requesting site status and submittal of remedial proposal and site monitoring. 06/18/02: DEC received site investigation work plan from BBL. 08/08/02: DEC meeting with BBL. Reviewed files and inspected site. Met with property owner and discussed site investigation drilling work. 09-10/02: BBL conducted additional site assessment activities which included installing seven soil borings and six temporary well points for the collection of soil and groundwater samples. Four of the seven soil borings were installed inside the existing building (two under the northern addition and two under the southern addition). The remaining three soil borings were installed around the building perimeter west, east, and north of the existing building. Three temporary wells points were installed inside the building and three were installed outside the building. 04/11/03: BBL submitted report titled, Additional Site Assessment Report dated

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March 2003 that presented results of Sept.-Oct. 2002 investigation. Based on a review of analytical results, the total NYSDEC STARS list for VOCs soil concentration analytical results ranged from 141.5 micrograms per kilogram ug/kg at WP-5 to 300,670 ug/kg at WP-lB. Groundwater samples were collected on October 9, 2002 from existing monitoring wells MW-6, MW-7, MW-8, MW-9, and the newly installed well points WP-lB, WP-2, WP-3, WP-4, WP-5, and WP-6 approximately one week after well point installation and development. Total NYSDEC STARS list for VOCs ranged from 1.6 ug/l at WP-6 to 15,526 ug/l at MW-9. Based on the additional assessment, the remaining petroleum impacts are mostly in saturated soil 6 to 12 feet below grade beneath the on-site building. The remaining petroleum hydrocarbon in the saturated soils is from at least two separate sources. One source contains elevated benzene and is found in monitoring wells outside the building along the southwest comer of the building including VEP-1, MW-8 and MW-9. The other source(es) are located beneath the building in the northwestern and south western portions of the building (WP-4 and WP-1) at the two former UST locations. The two areas could be contiguous or from a single source beneath the building because, both areas beneath the building exhibit low benzene concentrations. Based on the results of this site assessment and the remedial alternatives assessment, BBL proposed that a bench scale study be implemented to further evaluate soil treatment via an oxidant with either sodium or potassium permanganate. BBL proposed to properly abandoned well points WP-lB, WP-4, and WP-6 inside the building to mitigate these wells acting as a potential petroleum vapor migration pathway. 05/09/03: DEC letter to W. D.Howard (Chevron)approving decommissioning well points WP-lB, WP-4, and WP-6 inside the building however requested groundwater samples for analysis of NYSDEC STARS List for VOCs be collected from all site wells (MW-6 through MW-9, VEP-1, WP-2, WP-3, WP-5, B2, B4, and B5) prior to decommissioning WP-IB, WP-4, and WP-6. Requested submital of a work plan for implementation of a bench scale and/or pilot study to further asses and design an effective remedial system. 05/03: SAIC began conducting quarterly groundwater sampling events at the site. During the May quarterly sampling event, SAIC abandoned temporary monitoring well points WP-1B, WP-4, and WP-6, which were located inside the existing site office building. 03/04/04: DEC letter to W. D.Howard (Chevron) requesting remediation be re-initiated at the site. Noted prior January 2, 2001, May 31, 2002 and May 9, 2003 DEC letters requesting remediation be re-initiated at the site. 05/04: SAIC installed a new monitoring well point (WP-7) and initiated an in-situ bioremediation pilot test at the site. A bioamendment solution consisting of urea and magnesium peroxide was injected into monitoring well MW-9, and monitoring wells WP-7 and MW-8 were monitored to evaluate the performance of the pilot test through the third quarterly sampling event of 2005. Results of the pilot test suggest that the introduction of bioamendments into the subsurface at MW-9 was effective in reducing the concentration of BTEX constituents in groundwater during the pilot test period; however, microbial counts were variable and ranged from 0 to 210,000 colony forming units per milliliter (cfu/mL). A reduction in concentrations of BTEX constituents of approximately 99% was observed in injection well MW-9. However, a 60% concentration increase of BTEX constituents was observed in downgradient well MW-8. 08/02/06: SAIC, performed 1st round sub-slab vapor sampling in on-site building. Two sub slab vapor probes were installed inside the building, one each in the offices of

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Avon and Nurse Finders, VMP-3 and VMP-4, respectively. 04/17/07: SAIC, performed 2nd round sub-slab vapor sampling in on-site building. 06/19-20/07: SAIC performed the second quarter 2007 groundwater sampling event. 08/23/07: SAIC submitted Second Quarter 2007 Buffalo SMR which included the results of the 1st and 2nd rounds of sub-slab vapor sampling. Samples were analzed by EPA method TO-15. Benzene concentrations in the 8/2/06 sub-slab vapor samples ranged from non detect to 0.37 parts per billion (ppb). Benzene concentrations in the 4/17/07 samples ranged from 0.068 to 0.095 ppb (estimated). 09/09/09: Nonaqueous phase liquid was detected in monitoring well B-4. Upon further investigation of the well, it was determined that employees from a nearby restaurant had placed used kitchen cooking grease into this well. Personnel from the restaurant informed SAIC employees at the time of the sampling event that they thought that the well was a drain. This incident was reported to the NYSDEC on September 4, 2009. 03/23-24/11: SAIC performed the first quarter groundwater sampling event. 04/07/11: Well B-4 was decommissioned and a new down-gradient compliance monitoring well, MW-10, was installed in the parking lot situated to the south of the adjacent building at 427 Delaware Avenue. This well is a shallow monitoring well that will be used to delineate dissolved phase impacts down-gradient. 08/30-31/11: SAIC performed the third quarter groundwater sampling event. Groundwater was purged and sampled from nine monitoring wells during the March 2013 monitoring event (MW-6, MW-7, MW-8, MW-9, MW-10, VEP-1, WP-2, WP-3, and WP-5). Monitoring well WP-7 has an obstruction in the bottom of the well and was not gauged or sampled during the current event. Sample results for BTEX ranged from non-detect at WP-3 and WP-5 to 8290 ppb at VEP-1. 9/26-30/11: Two-phase vapor and groundwater extraction events performed at the site between September 26, 2011 and September 30, 2011. The two-phase events focused on wells VEP-1 and MW-8. Approximately 7,860 gallons of groundwater extracted over 36 hours, average combined extraction rate of roughly 3.5 gallons per minute (gpm). Based on the data collected by SAIC, the five events resulted in a combined mass removal of 9.48 pounds of hydrocarbons. In general, vapor concentrations were relatively low, in large part due to the hydrogeologic conditions and low vacuum influence. Despite efforts made to maximize and optimize mass removal rates by varying applied vacuum and stinger depths in the wells, the overall mass removal rate was low. Mass removal may have been influenced by the large amount of water generated by the wells, which made it difficult to drawdown the water column in each well and expose the entire smear zone soils. 11/03/11: SAIC performed the forth quarter groundwater sampling event. Groundwater was purged and sampled from nine monitoring wells during the March 2013 monitoring event (MW-6, MW-7, MW-8, MW-9, MW-10, VEP-1, WP-2, WP-3, and WP-5). Monitoring well WP-7 has an obstruction in the bottom of the well and was not gauged or sampled during the current event. Sample results for BTEX ranged from 1 ppb at Wp-3 and WP-5 to 5830 ppb at VEP-1. Based on the groundwater analytical results, subsequent to the two-phase extraction events, benzene concentrations decreased by 85% in MW-8 and 42% in VEP-1 when compared to the August 2011 data. BTEX concentrations decreased by 82% in well MW-8 and 49% in well VEP-1 when compared to the August 2011 data. 03/14/12: SAIC performed the first quarter groundwater sampling event. Groundwater was purged and sampled from nine monitoring wells during the March 2013 monitoring event (MW-6, MW-7, MW-8, MW-9, MW-10, VEP-1, WP-2, WP-3, and WP-5). Monitoring well WP-7

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has an obstruction in the bottom of the well and was not gauged or sampled during the current event. Sample results for BTEX ranged from non-detect at WP-5 to 6440 ppb at VEP-1. 06/28/12: SAIC performed the second quarter groundwater sampling event. Groundwater was purged and sampled from nine monitoring wells during the March 2013 monitoring event (MW-6, MW-7, MW-8, MW-9, MW-10, VEP-1, WP-2, WP-3, and WP-5). Monitoring well WP-7 has an obstruction in the bottom of the well and was not gauged or sampled during the current event. Sample results for BTEX ranged from 1 ppb at WP-3 and WP-5 to 9310 ppb at VEP-1. 08/22/12: SAIC performed the third quarter groundwater sampling event. Groundwater was purged and sampled from nine monitoring wells during the March 2013 monitoring event (MW-6, MW-7, MW-8, MW-9, MW-10, VEP-1, WP-2, WP-3, and WP-5). Monitoring well WP-7 has an obstruction in the bottom of the well and was not gauged or sampled during the current event. Sample results for BTEX ranged from non-detect at WP-3 and WP-5 to 8290 ppb at VEP-1. 12/6/12: SAIC performed the forth quarter groundwater sampling event. Groundwater was purged and sampled from nine monitoring wells during the March 2013 monitoring event (MW-6, MW-7, MW-8, MW-9, MW-10, VEP-1, WP-2, WP-3, and WP-5). Monitoring well WP-7 has an obstruction in the bottom of the well and was not gauged or sampled during the current event. Sample results for BTEX ranged from non-detect at Wp-3 and WP-5 to 6780 ppb at VEP-1. 03/12-13/13: SAIC performed the first quarter groundwater sampling event. Groundwater was purged and sampled from nine monitoring wells during the March 2013 monitoring event (MW-6, MW-7, MW-8, MW-9, MW-10, VEP-1, WP-2, WP-3, and WP-5). Monitoring well WP-7 has an obstruction in the bottom of the well and was not gauged or sampled during the current event. Sample results for BTEX ranged from non-detect at WP-5 to 6860 ppb at VEP-1. 05/21-22/13: SAIC performed the second quarter groundwater sampling event. Concentrations exceeded Standards for STARS list compounds in groundwater analyzed from seven of the eight monitoring wells sampled(MW-6, MW-7, MW-8, MW-9, VEP-1,WP-2, and WP-3). Sample results for BTEX ranged from 2.1 ppb at MW-10 to 9140 ppb at VEP-1. 08/14/13: DEC site meeting with Steve Visocky new SAIC project manager, Rich O'Keefe (SAIC)and Martin Ocampo new Chevron project manager. SAIC technicians on-site conducting quarterly sampling. Discussed site history and remaining petro impacts beneath bldg. and adjacent to south side of bldg. Discussed SAIC proposal to conduct groundwater flow/contamination transport modeling to determine if impacted groundwater would reach the nearest down-gradient receptor. DEC noted that repeated monitoring events had already demonstrated that the groundwater plume was stable. NYS DOH currently reviewing 2007 sub-slab vapor sampling results to determine if further work required beneath bldg. Remaining issues to be addressed prior to site closure included petro impacts adjacent to south side of bldg., development of soils management plan and MW decommissioning. Noted apparent vent pipe along side south side of bldg. (near southwest bldg. corner) required further investigation. Agreed that future GW sampling could be reduced from quarterly to biannually. 08/20/13: Received DOH evaluation of 2007 sub-slab vapor sampling results. As of the date of the sampling, m and p-xylene barely exceeded DOH 90th percentile numbers. All the other compounds well below 90th percentile numbers. No need for further sampling. 09/10/13: DEC telecon w/ Steve Visocky (SAIC) to discuss 8/14/13 meeting. Noted no additional sub-slab sampling or additional remeadial work required beneath bldg. Steve said SAIC would be submitting plan to address soil contamination

NYS DEPT OF ENVIR CONSER-REG 9 (Continued) **1000110443**

outside bldg. footprint and decommissioning of MWs. 11/27/13: DEC received third quarter SMR for groundwater sampling conducted on 8/14/13. Concentrations exceeded Standards for STARS list compounds in groundwater analyzed from seven of the eight monitoring wells sampled(MW-6, MW-7, MW-8, MW-9, VEP-1,WP-2, and WP-3). Sample results for BTEX ranged from 2.35 ppb at MW-10 to 8520 ppb at VEP-1. Groundwater sampling frequency to be reduced from quarterly to semiannual sampling. Next groundwater sampling event is scheduled for the first half of 2014. Planning for probable source area soil excavation near VEP-1 has begun. Excavation tentatively scheduled for the first quarter of 2014 in early Spring weather permitting. 12/30/13: DEC sent email noting reduction in submission of SMRs from from quarterly to semi-annually to coincide with the previously agreed upon reduction in groundwater sampling from quarterly to semi-annually is acceptable to the NYSDEC. Requested date for work plan submission for probable source area soil excavation work. 05/01/14: Received April 30, 2014 Excavation Workplan Design Tasks letter from Leidos Consulting. They plan to do two borings in proposed excavation area to collect geotechnical soils data and analytical data for landfill disposal of soils. Will also look for potential UST adjacent to bldg (via geophysical survey and air knife) and conduct utility stakeout. Called Steve Visocky, work tentatively planned for week of May 12th. Steve agreed to notify me of actual start date when closer to beginning work. 06/17/14: DEC sent email Martin Ocampo (CEMC) cc:Steve Visocky & Richard O'Keefe (Leidos) requesting status of the excavation workplan design tasks and excavation work plan ? Received reply back from Rich O'Keefe, they completed geophysical work yesterday working on sample collection today. Sent reply to O'Keefe, Steve Visocky was to notify me in advance of work so I could inspect, not sure I could make it out today. 07/01/14: TED telecon with Steve Visocky, noted they had completed geophysical work, baildown/pumping test in MW-8 and had attempted soil sampling but hit refusal at 4 feet. they plan to go back out and attempt resample to 12 feet to collect geotechnical soils data and analytical data. Steve agreed to notify me in advance of date. Steve agreed to send letter report of work completed. Steve asked for copy of NYSDEC RP letter to Texaco. He also mentioned new Chevron manager assigned to site. Sent email to Steve with attached copy of NYSDEC RP letter to Texaco. Requested contact info for new Chevron manager. 08/11/14: Received Update of Remediation Work Plan Design Tasks. Following tasks completed: 1. full suite geophysical survey was completed; 2.an attempt to advance geotechnical borings; 3. a bail down test on MW-8; 4.Leidos engaged a local subject matter expert to review the condition of the on-site and offsite buildings, which included obtaining drawings and inspecting the foundation and basement information about the buildings. Geophysical survey inconclusive though did identify some linear anomalies possibly related to the vent lines that are on the side of the building and the former underground remedial system lines. Attempted to advance two borings in the eastern and western portions of the VEP-1 area using a hand auger. Both borings encountered refusal at approximately 4 ft bgs on building debris (e.g. concrete, bricks,etc.). A third boring was attempted approximately 10 ft due west and encountered refusal at a similar depth. Based on results of bail down test it was determined a plan to handle water generated from a potential excavation would be required. The on-site building consists of a slab and foundation and does not have a basement. The offsite building to

NYS DEPT OF ENVIR CONSER-REG 9 (Continued) **1000110443**

south was constructed in 1892 and has a basement. Received first half SMR Jan. - June 2014. Leidos performed the first semi-annual groundwater sampling on 5/12/14. Groundwater sampled from seven monitoring wells (MW-6, MW-7, MW-8, MW-9, VEP-1, WP-2, and WP-3). Concentrations exceeding the NYSAWQS for STARS (gasoline) list compounds were detected in wells MW-6, MW-7, MW-8, MW-9, VEP-1, and WP-2. A decreasing trend in the benzene and BTEX concentrations over time is evident in all site wells including VEP-1. Total BTEX concentrations ranged from 2.6 ppb in WP-3 to 6,070 ppb in VEP-1. VEP-1 BTEX concentrations have decreased an order of magnitude over time. 10/10/14: DEC teleconference with Matthew Thompson (Chevron) and Riuchard O'Keefe (Leidos). Due to structural concerns of the buildings and the the continued downward trend in groundwater contaminant concentrations they did not wantto proceed with excavation in area of VEP-1. Agreed to re-evaluate and consider closing site inactive. 11/14/14: Based upon structural limitations preventing futher remedial excavation and continued decreasing trend in the benzene and BTEX concentrations over time site re-classified inactive. Inactive letter sent to Matthew Thompson (Chevron). Requested wells decommissioned in accordance with the New York State Department of Environmental Conservation (NYSDEC) Commissioner Policy CP-43: Groundwater Monitoring Well Decommissioning Policy. Requested work plan and schedule for decommissioning the wells. Noted documentation of the well decommissioning work must be submitted to this office within 30 days of its completion. Noted Texaco may be held responsible for any petroleum impacted soil left in place or generated during future site excavations from the contaminated area. Current property owner, Ron Alsheimer, copied on letter."

Remarks: "FUMES IN BASEMENT OF BUILDING AT 437 DELAWARE - INTERIM ISR SENT 10/17/88"

All Materials:

Site ID:	212131
Operable Unit ID:	897967
Operable Unit:	01
Material ID:	565398
Material Code:	0009
Material Name:	gasoline
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	500.00
Units:	G
Recovered:	300.00
Oxygenate:	True

Site ID:	212131
Operable Unit ID:	897967
Operable Unit:	01
Material ID:	572180
Material Code:	1213A
Material Name:	MTBE (methyl-tert-butyl ether)
Case No.:	01634044
Material FA:	Hazardous Material
Quantity:	Not reported
Units:	Not reported
Recovered:	Not reported
Oxygenate:	True

NYS DEPT OF ENVIR CONSER-REG 9 (Continued) **1000110443**

RCRA NonGen / NLR:
Date form received by agency: 01/01/2007
Facility name: NYS DEPT OF ENVIR CONSER-REG 9
Facility address: 437 DELAWARE AVE
BUFFALO, NY 14202-1514
EPA ID: NYD982276313
Mailing address: WOLF RD RM 326
ALBANY, NY 12233
Contact: Not reported
Contact address: WOLF RD RM 326
ALBANY, NY 12233
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: NEW YORK STATE
Owner/operator address: NOT REQUIRED
NOT REQUIRED, WY 99999
Owner/operator country: US
Owner/operator telephone: 212-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: State
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NEW YORK STATE
Owner/operator address: NOT REQUIRED
NOT REQUIRED, WY 99999
Owner/operator country: US
Owner/operator telephone: 212-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: State
Owner/Operator Type: Owner
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

NYS DEPT OF ENVIR CONSER-REG 9 (Continued) **1000110443**

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
Site name: NYS DEPT OF ENVIR CONSER-REG 9
Classification: Not a generator, verified

Date form received by agency: 07/08/1999
Site name: NYS DEPT OF ENVIR CONSER-REG 9
Classification: Not a generator, verified

Date form received by agency: 08/24/1987
Site name: NYS DEPT OF ENVIR CONSER-REG 9
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: X003
. Waste name: OTHER STATE REGULATED WASTES [i.e., DIESEL FUEL, GASOLINE AND HOME HEATING OIL]

Violation Status: No violations found

FINDS:

Registry ID: 110004418826

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.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1000110443
Registry ID: 110004418826
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110004418826

NY MANIFEST:
Country: USA
EPA ID: NYD982276313
Facility Status: Not reported
Location Address 1: 437 DELAWARE AVE
Code: BP
Location Address 2: Not reported

NYS DEPT OF ENVIR CONSER-REG 9 (Continued) **1000110443**

Total Tanks:	Not reported
Location City:	BUFFALO
Location State:	NY
Location Zip:	14202
Location Zip 4:	1303

NY MANIFEST:

EPAID:	NYD982276313
Mailing Name:	NYSDEC
Mailing Contact:	NYSDEC
Mailing Address 1:	50 WOLF RD
Mailing Address 2:	Not reported
Mailing City:	ALBANY
Mailing State:	NY
Mailing Zip:	12233
Mailing Zip 4:	Not reported
Mailing Country:	USA
Mailing Phone:	8004577362

NY MANIFEST:

Document ID:	NYA6286788
Manifest Status:	C
seq:	Not reported
Year:	1988
Trans1 State ID:	8778-6P
Trans2 State ID:	Not reported
Generator Ship Date:	03/15/1988
Trans1 Recv Date:	03/15/1988
Trans2 Recv Date:	/ /
TSD Site Recv Date:	03/15/1988
Part A Recv Date:	03/22/1988
Part B Recv Date:	03/22/1988
Generator EPA ID:	NYD982276313
Trans1 EPA ID:	CTD991288747
Trans2 EPA ID:	Not reported
TSDF ID 1:	NYD043815703
TSDF ID 2:	Not reported
Manifest Tracking Number:	Not reported
Import Indicator:	Not reported
Export Indicator:	Not reported
Discr Quantity Indicator:	Not reported
Discr Type Indicator:	Not reported
Discr Residue Indicator:	Not reported
Discr Partial Reject Indicator:	Not reported
Discr Full Reject Indicator:	Not reported
Manifest Ref Number:	Not reported
Alt Facility RCRA ID:	Not reported
Alt Facility Sign Date:	Not reported
MGMT Method Type Code:	Not reported
Waste Code:	D001 - NON-LISTED IGNITABLE WASTES
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Quantity:	00600
Units:	P - Pounds

NYS DEPT OF ENVIR CONSER-REG 9 (Continued) **1000110443**

Number of Containers: 001
Container Type: DM - Metal drums, barrels
Handling Method: L Landfill.
Specific Gravity: 100

Click this hyperlink while viewing on your computer to access additional NY_MANIFEST: detail in the EDR Site Report.

F34 **NOHIO DISTRIBUTORS INC** **EDR Hist Auto** **1020207052**
West **435 DELAWARE AVE** **N/A**
< 1/8 **BUFFALO, NY 14202**
0.107 mi.
563 ft. **Site 6 of 8 in cluster F**

Relative: EDR Hist Auto
Lower

Actual: Year: Name: Type:
627 ft. 1973 NOHIO DISTRIBUTORS INC Gasoline Service Stations
1974 NOHIO DISTRIBUTORS INC Gasoline Service Stations
1975 NOHIO DISTRIBUTORS INC Gasoline Service Stations
1976 NOHIO DISTRIBUTORS INC Gasoline Service Stations
1977 NOHIO DISTRIBUTORS INC Gasoline Service Stations

H35 **OHILSON ROY AUTO LNDY** **EDR Hist Auto** **1014537177**
SSW **359 FRANKLIN ST** **N/A**
< 1/8 **BUFFALO, NY**
0.108 mi.
570 ft. **Site 2 of 3 in cluster H**

Relative: EDR Hist Auto
Lower

Actual: Year: Name: Type:
630 ft. 1930 OHILSON ROY AUTO LNDY AUTOMOBILE LAUNDRIES
1930 AMANN RAY T GREASE STA GASOLINE AND OIL SERVICE STATIONS

G36 **BUSSI GEO FILLING STA** **EDR Hist Auto** **1014537632**
NNE **38 PEARL ST** **N/A**
< 1/8 **BUFFALO, NY**
0.108 mi.
570 ft. **Site 2 of 2 in cluster G**

Relative: EDR Hist Auto
Higher

Actual: Year: Name: Type:
639 ft. 1940 BUSSI GEO FILLING STA GASOLINE AND OIL SERVICE STATIONS

J37 **MAIN HAND LAUNDRY** **EDR Hist Cleaner** **1014535000**
NE **854 MAIN ST** **N/A**
< 1/8 **BUFFALO, NY**
0.108 mi.
571 ft. **Site 1 of 2 in cluster J**

Relative: EDR Hist Cleaner
Higher

Actual: Year: Name: Type:
641 ft. 1940 MAIN HAND LAUNDRY LAUNDRIES - HAND

F38 **NIAGARA MOHAWK A NATIONAL GRID CO** **NY MANIFEST** **S119072559**
WNW **DELAWARE AVE & VIRGINIA ST** **N/A**
< 1/8 **BUFFALO, NY 14202**
0.114 mi.
601 ft. **Site 7 of 8 in cluster F**

Relative: NY MANIFEST:
Lower Country: USA
EPA ID: NYP000971788
Actual: Facility Status: Not reported
628 ft. Location Address 1: DELAWARE AVE
Code: BP
Location Address 2: Not reported
Total Tanks: Not reported
Location City: BUFFALO
Location State: NY
Location Zip: 14202
Location Zip 4: Not reported

NY MANIFEST:
EPAID: NYP000971788
Mailing Name: NIAGARA MOHAWK A NATIONAL GRID CO
Mailing Contact: LOU MONTESANO
Mailing Address 1: 144 KENSINGTON AVE
Mailing Address 2: Not reported
Mailing City: BUFFALO
Mailing State: NY
Mailing Zip: 14214
Mailing Zip 4: Not reported
Mailing Country: USA
Mailing Phone: 7168317209

NY MANIFEST:
Document ID: Not reported
Manifest Status: Not reported
seq: Not reported
Year: 2015
Trans1 State ID: NYD986980753
Trans2 State ID: Not reported
Generator Ship Date: 05/05/2015
Trans1 Recv Date: 05/05/2015
Trans2 Recv Date: Not reported
TSD Site Recv Date: 05/05/2015
Part A Recv Date: Not reported
Part B Recv Date: Not reported
Generator EPA ID: NYP000971788
Trans1 EPA ID: Not reported
Trans2 EPA ID: Not reported
TSDF ID 1: NYD049836679

NIAGARA MOHAWK A NATIONAL GRID CO (Continued) **S119072559**

TSDF ID 2:	Not reported
Manifest Tracking Number:	003045078FLE
Import Indicator:	N
Export Indicator:	N
Discr Quantity Indicator:	N
Discr Type Indicator:	N
Discr Residue Indicator:	N
Discr Partial Reject Indicator:	N
Discr Full Reject Indicator:	N
Manifest Ref Number:	Not reported
Alt Facility RCRA ID:	Not reported
Alt Facility Sign Date:	Not reported
MGMT Method Type Code:	H132
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Quantity:	180
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	2
Container Type:	DM - Metal drums, barrels
Handling Method:	L Landfill.
Specific Gravity:	1
Waste Code:	B007
Waste Code 1_2:	Not reported
Waste Code 1_3:	Not reported
Waste Code 1_4:	Not reported
Waste Code 1_5:	Not reported
Waste Code 1_6:	Not reported

Click this hyperlink while viewing on your computer to access
5 additional NY_MANIFEST: record(s) in the EDR Site Report.

F39 **NATIONAL GRID MH 496 & 526 DELAWARE AVE BUFFALO** **RCRA-LQG** **1017788029**
WNW **DELAWARE AVE** **FINDS** **NYP000971788**
< 1/8 **BUFFALO, NY 14202** **ECHO**
0.114 mi.
601 ft. **Site 8 of 8 in cluster F**

Relative:
Lower

Actual:
628 ft.

RCRA-LQG:

Date form received by agency:	02/25/2016
Facility name:	NATIONAL GRID MH 496 & 526 DELAWARE AVE BUFFALO
Facility address:	DELAWARE AVE BUFFALO, NY 14202
EPA ID:	NYP000971788
Mailing address:	ERIE BLVD W SYRACUSE, NY 13202
Contact:	STEPHEN P HALLER
Contact address:	ERIE BLVD W A-3 SYRACUSE, NY 13202
Contact country:	US
Contact telephone:	315-428-5206
Contact email:	STEPHEN.HALLER@NATIONALGRID.COM
EPA Region:	02
Classification:	Large Quantity Generator

NATIONAL GRID MH 496 & 526 DELAWARE AVE BUFFALO (Continued) **1017788029**

Description: Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg 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; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; 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 more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name:	NATIONAL GRID
Owner/operator address:	ERIE BLVD W SYRACUSE, NY 13202
Owner/operator country:	US
Owner/operator telephone:	Not reported
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	01/01/1900
Owner/Op end date:	Not reported

Owner/operator name:	NIAGARA MOHAWK POWER CORP
Owner/operator address:	ERIE BLVD W SYRACUSE, NY 13202
Owner/operator country:	US
Owner/operator telephone:	Not reported
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	01/01/1900
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
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

NATIONAL GRID MH 496 & 526 DELAWARE AVE BUFFALO (Continued) **1017788029**

. Waste code: B002
. Waste name: B002

. Waste code: B007
. Waste name: B007

Historical Generators:
Date form received by agency: 06/29/2015
Site name: NIAGARA MOHAWK A NATIONAL GRID CO
Classification: Not a generator, verified

. Waste code: B007
. Waste name: B007

Date form received by agency: 04/30/2015
Site name: NIAGARA MOHAWK A NATIONAL GRID CO
Classification: Large Quantity Generator

. Waste code: B007
. Waste name: B007

Violation Status: No violations found

FINDS:

Registry ID: 110064385981

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.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1017788029
Registry ID: 110064385981
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110064385981

H40 **DANNYS AUTO WASH** **EDR Hist Auto** **1014538344**
SSW **357 FRANKLIN ST** **N/A**
< 1/8 **BUFFALO, NY**
0.114 mi.
602 ft. **Site 3 of 3 in cluster H**

Relative: EDR Hist Auto
Lower

Actual: **630 ft.**

Year:	Name:	Type:
1935	FRANKLIN AUTO SERVICE	AUTOMOBILE REPAIRING
1935	FRANKLIN AUTO SERVICE	GASOLINE AND OIL SERVICE STATIONS
1940	FRANKLIN AUTO SERVICE FILLING S	GASOLINE AND OIL SERVICE STATIONS
1946	DANNYS AUTO WASH	GASOLINE AND OIL SERVICE STATIONS

DANNYS AUTO WASH (Continued) **1014538344**

1950	D AURIA SAML AUTTO REPR	AUTOMOBILE REPAIRING
1955	ABBOTT ISAAC G GAS STA	GASOLINE STATIONS
1960	IKES SUNOCO SERVICE GAS STA	GASOLINE STATIONS

K41 **FLYNN'S BAR AND GRILL** **NY Spills** **S102176088**
ESE **815 MAIN STREET** **N/A**
< 1/8 **BUFFALO, NY**
0.117 mi.
617 ft. **Site 1 of 6 in cluster K**

Relative: **Higher**

Actual: **634 ft.**

SPILLS:

Facility ID:	8803675
Facility Type:	ER
Spill Number:	8803675
DER Facility ID:	156645
Site ID:	187489
DEC Region:	9
Closed Date:	1989-10-02
Spill Cause:	Unknown
Spill Class:	Not reported
SWIS:	1502
Spill Date:	1988-07-27
Investigator:	PRINGLE
Referred To:	Not reported
Reported to Dept:	1988-07-27
CID:	Not reported
Water Affected:	Not reported
Spill Source:	Unknown
Spill Notifier:	Fire Department
Cleanup Ceased:	1989-10-02
Cleanup Meets Std:	True
Last Inspection:	1989-07-27
Recommended Penalty:	False
UST Trust:	False
Remediation Phase:	0
Date Entered In Computer:	1988-08-03
Spill Record Last Update:	1989-11-08
Spiller Name:	Not reported
Spiller Company:	UNKNOWN
Spiller Address:	Not reported
Spiller Company:	999
Contact Name:	Not reported
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was MNP / / : . / / : TEST HISTORY. 08/03/88: MNP SITE INSPECTION 7/28/88 HIGH READINGS ON HNU METER HIRED NEPCCO TO EXCAVATE HOLE ADJACENT TO BLDG TO RELIEVE VAPORS, VAPORS DETECTED IN EXCAVATION, 8/2/88 NO VAPORS DETECTED ANYWHERE AT SITE. 08/04/88: RNL SITE INSP. 08/04/88, SOIL STILL ON SITE, NO ODOR NOTED ON EXTERIOR OR FROM SOIL. 08/09/88: 8/9/88 RNL TELECON W/E&E , VERBAL SAMPLE RESULTS, NO PETRO. DETECTED, NON-IGNITABLE. 08/10/88: 8/10/88 MNP TELECON W/NEPCCO, THEY WILL START PAPERWORK FOR DISPOSAL, I WILL FORWARD SAMPLE RESULTS ASAP, HOLE TO BE BACKFILLED SOON. 08/11/88: 8/11/88 MNP TELECON W/DIOCESES, PROVIDED UPDATE;MNP INSP. NO ODORS OR READINGS ON HNU DETECTED IN BAR, 10-15 PPM IN PILE OF SOIL;MNP TELECON W/NEPCCO, DISPOSAL SET & HOLE TO BE BACKFILLED NEXT WEEK. 11/21/88: TEST # 2 EDITED. 11/21/88: TEST ADD HISTORY RECORD. 10/02/89: 10/2/89 MNP REVIEW OF FILE, FINAL PAYMENT PACKAGE COMPLETED 9/14/89, RNL TO SEND ISR TO ALBANY, COMPLETE. "

FLYNN'S BAR AND GRILL (Continued) **S102176088**

Remarks: "BUFFALO FIRE DEPT. CALLED TO 815 MAIN DUE GASOLINE FUMES IN BASEMENT"
Not reported

All Materials:
Site ID: 187489
Operable Unit ID: 920843
Operable Unit: 01
Material ID: 459215
Material Code: 0009
Material Name: gasoline
Case No.: Not reported
Material FA: Petroleum
Quantity: .00
Units: Not reported
Recovered: .00
Oxygenate: Not reported

J42 **CELLULAR PRODUCTS INC** **RCRA NonGen / NLR** **1000556933**
NE **872 MAIN ST** **FINDS** **NYD986995181**
< 1/8 **BUFFALO, NY 14202** **ECHO**
0.117 mi. **NY MANIFEST**
620 ft. **Site 2 of 2 in cluster J**

Relative:
Higher

Actual:
642 ft.

RCRA NonGen / NLR:
Date form received by agency: 01/01/2007
Facility name: CELLULAR PRODUCTS INC
Facility address: 872 MAIN ST
BUFFALO, NY 14202-1499
EPA ID: NYD986995181
Mailing address: MAIN ST
BUFFALO, NY 14202
Contact: Not reported
Contact address: MAIN ST
BUFFALO, NY 14202
Contact country: US
Contact telephone: Not reported
Contact email: Not reported
EPA Region: 02
Land type: Municipal
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: CELLULAR PRODUCTS INC
Owner/operator address: 872 MAIN ST
BUFFALO, NY 14202
Owner/operator country: US
Owner/operator telephone: 716-882-0920
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Municipal
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: CELLULAR PRODUCTS INC

CELLULAR PRODUCTS INC (Continued) **1000556933**

Owner/operator address: 872 MAIN ST
BUFFALO, NY 14202
Owner/operator country: US
Owner/operator telephone: 716-882-0920
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Municipal
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
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 01/01/2006
Site name: CELLULAR PRODUCTS INC
Classification: Not a generator, verified

Date form received by agency: 07/08/1999
Site name: CELLULAR PRODUCTS INC
Classification: Not a generator, verified

Date form received by agency: 03/16/1992
Site name: CELLULAR PRODUCTS INC
Classification: Large Quantity Generator

. Waste code: D000
. Waste name: Not Defined

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D003
. Waste name: REACTIVE WASTE

. Waste code: D004
. Waste name: ARSENIC

CELLULAR PRODUCTS INC (Continued) **1000556933**

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: U003
. Waste name: ACETONITRILE (I,T)

. Waste code: U080
. Waste name: METHANE, DICHLORO- (OR) METHYLENE CHLORIDE

. Waste code: U188
. Waste name: PHENOL

. Waste code: U239
. Waste name: BENZENE, DIMETHYL- (I,T) (OR) XYLENE (I)

Violation Status: No violations found

Evaluation Action Summary:
Evaluation date: 02/25/1997
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/06/1995
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

FINDS:

Registry ID: 110004487029

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.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1000556933
Registry ID: 110004487029
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110004487029

NY MANIFEST:
Country: USA
EPA ID: NYD986995181
Facility Status: Not reported
Location Address 1: 872 MAIN STREET

CELLULAR PRODUCTS INC (Continued) **1000556933**

Code:	BP
Location Address 2:	Not reported
Total Tanks:	Not reported
Location City:	BUFFALO
Location State:	NY
Location Zip:	14202
Location Zip 4:	Not reported

NY MANIFEST:

EPAID:	NYD986995181
Mailing Name:	CELLULAR PRODUCTS/ZEPTO MATRIX CORP
Mailing Contact:	RICHARD MONTAGNA
Mailing Address 1:	872 MAIN STREET
Mailing Address 2:	Not reported
Mailing City:	BUFFALO
Mailing State:	NY
Mailing Zip:	14202
Mailing Zip 4:	Not reported
Mailing Country:	USA
Mailing Phone:	7168820920

NY MANIFEST:

Document ID:	Not reported
Manifest Status:	Not reported
seq:	Not reported
Year:	2016
Trans1 State ID:	CTR000003939
Trans2 State ID:	NJR000063677
Generator Ship Date:	09/12/2016
Trans1 Recv Date:	09/12/2016
Trans2 Recv Date:	09/19/2016
TSD Site Recv Date:	09/30/2016
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported
Generator EPA ID:	NYD986995181
Trans1 EPA ID:	Not reported
Trans2 EPA ID:	Not reported
TSDF ID 1:	RID040098352
TSDF ID 2:	Not reported
Manifest Tracking Number:	016064516JJK
Import Indicator:	N
Export Indicator:	N
Discr Quantity Indicator:	N
Discr Type Indicator:	N
Discr Residue Indicator:	N
Discr Partial Reject Indicator:	N
Discr Full Reject Indicator:	N
Manifest Ref Number:	Not reported
Alt Facility RCRA ID:	Not reported
Alt Facility Sign Date:	Not reported
MGMT Method Type Code:	H141
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported

CELLULAR PRODUCTS INC (Continued) **1000556933**

Quantity:	9.5
Units:	P - Pounds
Number of Containers:	1
Container Type:	DF - Fiberboard or plastic drums (glass)
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	1
Waste Code:	D002
Waste Code 1_2:	Not reported
Waste Code 1_3:	Not reported
Waste Code 1_4:	Not reported
Waste Code 1_5:	Not reported
Waste Code 1_6:	Not reported

Click this hyperlink while viewing on your computer to access
11 additional NY_MANIFEST: record(s) in the EDR Site Report.

I43 **MAIN TECK SERVICE & PARKING** **EDR Hist Auto** **1014537997**
SSE **757 MAIN ST** **N/A**
< 1/8 **BUFFALO, NY 14203**
0.119 mi.
626 ft. **Site 3 of 4 in cluster I**

Relative: EDR Hist Auto
Lower

Actual:
631 ft.

Year:	Name:	Type:
1960	MIKES GULF SERV STA	GASOLINE STATIONS
1964	MIKES SERV STA	GASOLINE STATIONS
1970	MAIN TECK SERVICE & PARKING	GASOLINE STATIONS
1980	MAIN TECK SERVICE & PARKING GAS	GASOLINE STATIONS
1985	R & K ENTERPRISING GAS STA	GASOLINE STATIONS
1985	AUTO TECH II INC	General Automotive Repair Shops
1986	AUTO TECH II INC	General Automotive Repair Shops
1987	AUTO TECH II INC	General Automotive Repair Shops
1988	AUTO TECH II INC	General Automotive Repair Shops
1989	AUTO TECH II INC	General Automotive Repair Shops
1990	AUTO TECH II INC	General Automotive Repair Shops
1992	AUTO TECH II AUTO REPR	AUTOMOBILE REPAIRING & SERVICE

I44 **FITZSIMMONS BROS CO FILL 8TA** **EDR Hist Auto** **1014537735**
SSE **755 MAIN ST** **N/A**
< 1/8 **BUFFALO, NY**
0.120 mi.
636 ft. **Site 4 of 4 in cluster I**

Relative: EDR Hist Auto
Lower

Actual:
631 ft.

Year:	Name:	Type:
1930	FITZSIMMONS BROS CO FILL 8TA	GASOLINE AND OIL SERVICE STATIONS
1955	MIKES GULF SERV STA	GASOLINE STATIONS
1960	MIKES GULF SERV STA	GASOLINE STATIONS

K45 **CENTURY CENTRE I** **CORRACTS** **1000177343**
East **817 WASHINGTON ST** **RCRA-CESQG** **NYD002107399**
< 1/8 **BUFFALO, NY 14203** **PADS**
0.122 mi. **US AIRS**
644 ft. **Site 2 of 6 in cluster K** **NY MANIFEST**

Relative: Higher

Actual: 635 ft.

CORRACTS:

EPA ID: NYD002107399
EPA Region: 02
Area Name: SITEWIDE
Actual Date: 19940112
Action: CA075LO - CA Prioritization, Facility or area was assigned a low corrective action priority
NAICS Code(s): Not reported
Original schedule date: 19940331
Schedule end date: Not reported

EPA ID: NYD002107399
EPA Region: 02
Area Name: SITEWIDE
Actual Date: 19881216
Action: CA999NF - Corrective Action Process Terminated, No Further Action
NAICS Code(s): Not reported
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002107399
EPA Region: 02
Area Name: SITEWIDE
Actual Date: 19881216
Action: CA070NO - RFA Determination Of Need For An RFI, RFI is Not Necessary
NAICS Code(s): Not reported
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002107399
EPA Region: 02
Area Name: SITEWIDE
Actual Date: 19940719
Action: CA070YE - RFA Determination Of Need For An RFI, RFI is Necessary
NAICS Code(s): Not reported
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002107399
EPA Region: 02
Area Name: SITEWIDE
Actual Date: 19920922
Action: CA050 - RFA Completed
NAICS Code(s): Not reported
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002107399
EPA Region: 02
Area Name: SITEWIDE
Actual Date: 20170724
Action: CA400 - Date For Remedy Selection (CM Imposed)

CENTURY CENTRE I (Continued) **1000177343**

NAICS Code(s): Not reported
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002107399
EPA Region: 02
Area Name: SITEWIDE
Actual Date: 19881028
Action: CA050PA - RFA Completed, Assessment was a PA-Plus
NAICS Code(s): Not reported
Original schedule date: Not reported
Schedule end date: Not reported

RCRA-CESQG:
Date form received by agency: 05/25/2017
Facility name: CENTURY CENTRE I
Facility address: 817 WASHINGTON ST
BUFFALO, NY 14203
EPA ID: NYD002107399
Mailing address: LOVELL PLACE
ERIE, PA 16503
Contact: RON FARAVAUGH
Contact address: LOVELL PLACE
ERIE, PA 16503
Contact country: US
Contact telephone: 814-392-4085
Contact email: Not reported
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 hazardous waste

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

CENTURY CENTRE I (Continued) **1000177343**

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

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Historical Generators:
Date form received by agency: 02/21/2007
Site name: CENTURY CENTRE I
Classification: Conditionally Exempt Small Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Date form received by agency: 02/20/2007
Site name: CENTURY CENTRE I
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 02/20/2007
Site name: CENTURY CENTRE I
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 03/20/2002
Site name: CENTURY CENTRE I

CENTURY CENTRE I (Continued) **1000177343**

Classification: Large Quantity Generator

. Waste code: D000
. Waste name: Not Defined

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D003
. Waste name: REACTIVE WASTE

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D009
. Waste name: MERCURY

. Waste code: F001
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLORETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F006
. Waste name: WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS, EXCEPT FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM; (2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS) ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC, AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF ALUMINUM.

CENTURY CENTRE I (Continued) **1000177343**

. Waste code: F007
. Waste name: SPENT CYANIDE PLATING BATH SOLUTIONS FROM ELECTROPLATING OPERATIONS.

. Waste code: F008
. Waste name: PLATING BATH RESIDUES FROM THE BOTTOM OF PLATING BATHS FROM ELECTROPLATING OPERATIONS IN WHICH CYANIDES ARE USED IN THE PROCESS.

. Waste code: F009
. Waste name: SPENT STRIPPING AND CLEANING BATH SOLUTIONS FROM ELECTROPLATING OPERATIONS IN WHICH CYANIDES ARE USED IN THE PROCESS.

. Waste code: P001
. Waste name: 2H-1-BENZOPYRAN-2-ONE, 4-HYDROXY-3-(3-OXO-1-PHENYLBUTYL)-, & SALTS, WHEN PRESENT AT CONCENTRATIONS GREATER THAN 0.3% (OR) WARFARIN, & SALTS, WHEN PRESENT AT CONCENTRATIONS GREATER THAN 0.3%

. Waste code: P029
. Waste name: COPPER CYANIDE (OR) COPPER CYANIDE CU(CN)

. Waste code: P030
. Waste name: CYANIDES (SOLUBLE CYANIDE SALTS), NOT OTHERWISE SPECIFIED

. Waste code: P098
. Waste name: POTASSIUM CYANIDE (OR) POTASSIUM CYANIDE K(CN)

. Waste code: P106
. Waste name: SODIUM CYANIDE (OR) SODIUM CYANIDE NA(CN)

. Waste code: P121
. Waste name: ZINC CYANIDE (OR) ZINC CYANIDE ZN(CN)2

. Waste code: U002
. Waste name: 2-PROPANONE (I) (OR) ACETONE (I)

. Waste code: U044
. Waste name: CHLOROFORM (OR) METHANE, TRICHLORO-

. Waste code: U056
. Waste name: BENZENE, HEXAHYDRO- (I) (OR) CYCLOHEXANE (I)

. Waste code: U112
. Waste name: ACETIC ACID, ETHYL ESTER (I) (OR) ETHYL ACETATE (I)

. Waste code: U134
. Waste name: HYDROFLUORIC ACID (C,T) (OR) HYDROGEN FLUORIDE (C,T)

. Waste code: U144
. Waste name: ACETIC ACID, LEAD(2+) SALT (OR) LEAD ACETATE

. Waste code: U151
. Waste name: MERCURY

. Waste code: U159
. Waste name: 2-BUTANONE (I,T) (OR) METHYL ETHYL KETONE (MEK) (I,T)

. Waste code: U201
. Waste name: 1,3-BENZENEDIOL (OR) RESORCINOL

CENTURY CENTRE I (Continued) **1000177343**

. Waste code: U211
. Waste name: CARBON TETRACHLORIDE (OR) METHANE, TETRACHLORO-

. Waste code: U213
. Waste name: FURAN, TETRAHYDRO-(I) (OR) TETRAHYDROFURAN (I)

. Waste code: U220
. Waste name: BENZENE, METHYL- (OR) TOLUENE

. Waste code: U226
. Waste name: ETHANE, 1,1,1-TRICHLORO- (OR) METHYL CHLOROFORM

. Waste code: U228
. Waste name: ETHENE, TRICHLORO- (OR) TRICHLOROETHYLENE

. Waste code: U239
. Waste name: BENZENE, DIMETHYL- (I,T) (OR) XYLENE (I)

. Waste code: B002
. Waste name: B002

. Waste code: B004
. Waste name: B004

. Waste code: B005
. Waste name: B005

. Waste code: B006
. Waste name: B006

Date form received by agency: 07/14/1999
Site name: CENTURY CENTRE I
Classification: Small Quantity Generator

Date form received by agency: 03/29/1996
Site name: TRICO PRODUCTS CORPORATION
Classification: Large Quantity Generator

Date form received by agency: 05/17/1994
Site name: TRICO PRODUCTS CORPORATION
Classification: Large Quantity Generator

Date form received by agency: 02/27/1992
Site name: TRICO PRODUCTS CORP
Classification: Large Quantity Generator

Date form received by agency: 03/01/1990
Site name: TRICO PRODUCTS CORPORATION
Classification: Large Quantity Generator

Date form received by agency: 11/19/1980
Site name: CENTURY CENTRE I
Classification: Not a generator, verified

. Waste code: D001
. Waste name: IGNITABLE WASTE

CENTURY CENTRE I (Continued) **1000177343**

. Waste code: F001
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLORETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F008
. Waste name: PLATING BATH RESIDUES FROM THE BOTTOM OF PLATING BATHS FROM ELECTROPLATING OPERATIONS IN WHICH CYANIDES ARE USED IN THE PROCESS.

Date form received by agency: 08/18/1980
Site name: CENTURY CENTRE I
Classification: Large Quantity Generator

Corrective Action Summary:
Event date: 10/28/1988
Event: RFA COMPLETED-ASSESSMENT WAS A PA-PLUS

Event date: 12/16/1988
Event: DETERMINATION OF NEED FOR AN INVESTIGATION-INVESTIGATION IS NOT NECESSARY

Event date: 12/16/1988
Event: CA PROCESS IS TERMINATED-NO FURTHER ACTION

Event date: 09/22/1992
Event: RFA COMPLETED

Event date: 01/12/1994
Event: CA PRIORITIZATION-LOW CA PRIORITY

Event date: 07/19/1994
Event: DETERMINATION OF NEED FOR AN INVESTIGATION-INVESTIGATION IS NECESSARY

Event date: 07/24/2017
Event: REMEDY DECISION

Facility Has Received Notices of Violations:
Regulation violated: Not reported
Area of violation: LDR - General
Date violation determined: 01/27/1997
Date achieved compliance: 02/11/1997
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 01/27/1997
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

CENTURY CENTRE I (Continued) **1000177343**

Evaluation Action Summary:

Evaluation date:	03/05/2003
Evaluation:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation:	Not reported
Date achieved compliance:	Not reported
Evaluation lead agency:	EPA
Evaluation date:	10/11/2001
Evaluation:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation:	Not reported
Date achieved compliance:	Not reported
Evaluation lead agency:	State
Evaluation date:	08/13/2001
Evaluation:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation:	Not reported
Date achieved compliance:	Not reported
Evaluation lead agency:	State
Evaluation date:	01/31/2001
Evaluation:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation:	Not reported
Date achieved compliance:	Not reported
Evaluation lead agency:	State
Evaluation date:	12/13/1999
Evaluation:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation:	Not reported
Date achieved compliance:	Not reported
Evaluation lead agency:	EPA
Evaluation date:	09/18/1998
Evaluation:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation:	Not reported
Date achieved compliance:	Not reported
Evaluation lead agency:	EPA
Evaluation date:	01/10/1997
Evaluation:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation:	LDR - General
Date achieved compliance:	02/11/1997
Evaluation lead agency:	State
Evaluation date:	11/06/1995
Evaluation:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation:	Not reported
Date achieved compliance:	Not reported
Evaluation lead agency:	State
Evaluation date:	09/02/1986
Evaluation:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation:	Not reported
Date achieved compliance:	Not reported
Evaluation lead agency:	State
Evaluation date:	03/12/1986
Evaluation:	NON-FINANCIAL RECORD REVIEW

CENTURY CENTRE I (Continued) **1000177343**

Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 11/14/1985
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 08/21/1985
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

PADS:
EPAID: NYD002107399
Facility name: TRICO PRODUCTS CORP.
Facility Address: 817 WASHINGTON STREET
BUFFALO, NY 14203
Facility country: US
Generator: Yes
Storer: No
Transporter: No
Disposer: No
Research facility: No
Smelter: No
Facility owner name: TRICO PRODUCTS CORP.
Contact title: Not reported
Contact name: TOMPKINS, TIM
Contact tel: (716)857-3052
Contact extension: Not reported
Mailing address: 817 WASHINGTON STREET
BUFFALO, NY 14203
Mailing country: US
Cert. title: Not reported
Cert. name: Not reported
Cert. date: 01/11/1994
Date received: 02/02/1994

US AIRS MINOR:
Envid: 1000177343
Region Code: 02
Programmatic ID: AIR NY0000009140200507
Facility Registry ID: 110000326816
D and B Number: Not reported
Primary SIC Code: 3714
NAICS Code: 336399
Default Air Classification Code: MIN
Facility Type of Ownership Code: POF
Air CMS Category Code: Not reported
HPV Status: Not reported

US AIRS MINOR:
Region Code: 02
Programmatic ID: AIR NY0000009140200507
Facility Registry ID: 110000326816

CENTURY CENTRE I (Continued) **1000177343**

Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1982-02-19 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200507
Facility Registry ID: 110000326816
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1984-02-07 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200507
Facility Registry ID: 110000326816
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1984-03-07 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200507
Facility Registry ID: 110000326816
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1984-06-30 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200507
Facility Registry ID: 110000326816
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1984-07-01 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

CENTURY CENTRE I (Continued) **1000177343**

Region Code: 02
Programmatic ID: AIR NY0000009140200507
Facility Registry ID: 110000326816
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1984-12-17 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200507
Facility Registry ID: 110000326816
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1986-02-26 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200507
Facility Registry ID: 110000326816
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1987-01-13 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200507
Facility Registry ID: 110000326816
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1987-06-10 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200507
Facility Registry ID: 110000326816
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1988-04-01 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring

CENTURY CENTRE I (Continued) **1000177343**

Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200507
Facility Registry ID: 110000326816
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1990-03-27 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200507
Facility Registry ID: 110000326816
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1992-11-05 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

US AIRS MINOR:
Envid: 1000177343
Region Code: 02
Programmatic ID: AIR NY0000009140200507
Facility Registry ID: 110000326816
D and B Number: Not reported
Primary SIC Code: 3714
NAICS Code: 336399
Default Air Classification Code: MIN
Facility Type of Ownership Code: POF
Air CMS Category Code: Not reported
HPV Status: Not reported

US AIRS MINOR:
Region Code: 02
Programmatic ID: AIR NY0000009140200507
Facility Registry ID: 110000326816
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1982-02-19 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200507
Facility Registry ID: 110000326816

CENTURY CENTRE I (Continued) **1000177343**

Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1984-02-07 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200507
Facility Registry ID: 110000326816
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1984-03-07 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200507
Facility Registry ID: 110000326816
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1984-06-30 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200507
Facility Registry ID: 110000326816
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1984-07-01 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200507
Facility Registry ID: 110000326816
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1984-12-17 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

CENTURY CENTRE I (Continued) **1000177343**

Region Code: 02
Programmatic ID: AIR NY0000009140200507
Facility Registry ID: 110000326816
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1986-02-26 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200507
Facility Registry ID: 110000326816
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1987-01-13 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200507
Facility Registry ID: 110000326816
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1987-06-10 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200507
Facility Registry ID: 110000326816
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1988-04-01 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200507
Facility Registry ID: 110000326816
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1990-03-27 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring

CENTURY CENTRE I (Continued) **1000177343**

Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200507
Facility Registry ID: 110000326816
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1992-11-05 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

NY MANIFEST:
Country: USA
EPA ID: NYD002107399
Facility Status: Not reported
Location Address 1: 817 WASHINGTON ST
Code: BP
Location Address 2: Not reported
Total Tanks: Not reported
Location City: BUFFALO
Location State: NY
Location Zip: 14203
Location Zip 4: 1217

NY MANIFEST:
EPAID: NYD002107399
Mailing Name: CENTURY CENTER
Mailing Contact: ALTIER
Mailing Address 1: 326 LOVELL PLACE
Mailing Address 2: Not reported
Mailing City: ERIE
Mailing State: PA
Mailing Zip: 16503
Mailing Zip 4: Not reported
Mailing Country: USA
Mailing Phone: 7168525700

NY MANIFEST:
Document ID: Not reported
Manifest Status: Not reported
seq: Not reported
Year: 2007
Trans1 State ID: TXR000050930
Trans2 State ID: NJD071629976
Generator Ship Date: 03/23/2007
Trans1 Recv Date: 03/23/2007
Trans2 Recv Date: 04/02/2007
TSD Site Recv Date: 04/03/2007
Part A Recv Date: Not reported
Part B Recv Date: Not reported
Generator EPA ID: NYD002107399
Trans1 EPA ID: Not reported

CENTURY CENTRE I (Continued) **1000177343**

Trans2 EPA ID:	Not reported
TSDF ID 1:	KYD053348108
TSDF ID 2:	Not reported
Manifest Tracking Number:	000256433SKS
Import Indicator:	N
Export Indicator:	N
Discr Quantity Indicator:	N
Discr Type Indicator:	N
Discr Residue Indicator:	N
Discr Partial Reject Indicator:	N
Discr Full Reject Indicator:	N
Manifest Ref Number:	Not reported
Alt Facility RCRA ID:	Not reported
Alt Facility Sign Date:	Not reported
MGMT Method Type Code:	H141
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Quantity:	1678
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	2
Container Type:	DM - Metal drums, barrels
Handling Method:	L Landfill.
Specific Gravity:	1
Waste Code:	B002
Waste Code 1_2:	Not reported
Waste Code 1_3:	Not reported
Waste Code 1_4:	Not reported
Waste Code 1_5:	Not reported
Waste Code 1_6:	Not reported

Click this hyperlink while viewing on your computer to access
281 additional NY_MANIFEST: record(s) in the EDR Site Report.

K46 **TRICO PRODUCTS** **MN MANIFEST** **S119130720**
East **817 WASHINGTON ST** **N/A**
< 1/8 **BUFFALO, NY 14203**
0.122 mi.
644 ft. **Site 3 of 6 in cluster K**

Relative: MANIFEST:
Higher

Actual:
635 ft.

Manifest ID:	596540
Generator ID:	NYD002107399
Generator AI ID:	44658
Transporter 1 ID:	NYD982792814
Transporter 1 AI ID:	18983
Transporter 1 AI Name:	Franks Vacuum Truck Service
Transporter 1 Address:	4500 Royal Ave
Transporter 1 City:	Niagara Falls
Transporter 1 State:	NY
Transporter 1 ZIP:	14303-2128
Transporter 2 ID:	Not reported
Transporter 2 AI ID:	Not reported
Transporter 2 AI Name:	Not reported

TRICO PRODUCTS (Continued) **S119130720**

Transporter 2 Address:	Not reported
Transporter 2 City:	Not reported
Transporter 2 State:	Not reported
Transporter 2 ZIP:	Not reported
TSD ID:	MND981190242
TSD AI ID:	36830
TSD AI Name:	Aptus Nei
TSD Address:	21750 Cedar Ave
TSD City:	Lakeville
TSD State:	MN
TSD Zip:	55044
Gen Copy Recd Date:	8/23/1993 0:00:00
Fac Copy Recd Date:	1993-08-19 00:00:00
Gen Ship Date:	1993-08-13 00:00:00
Trans 1 Recd Date:	1993-08-13 00:00:00
Trans 2 Recd Date:	Not reported
Tsd Recd Date:	1993-08-16 00:00:00
Comments:	Not reported

Detail:

Manifest ID:	596540
Manifest Row:	1
Haz Material Name:	HAZ LIQ NOS-CONTAINS PCB
Haz Class Number:	Not reported
UN NA Number:	NA9188
Packing Group Number:	Not reported
Container Qty:	1
Container Code:	DMML
Waste Qty:	97
Waste Units Code:	AL
Waste Code List:	MN03

Manifest ID:	596540
Manifest Row:	2
Haz Material Name:	HAZ SOLID NOS-CONTAINS PCB
Haz Class Number:	Not reported
UN NA Number:	NA9188
Packing Group Number:	Not reported
Container Qty:	14
Container Code:	DMML
Waste Qty:	1374
Waste Units Code:	AL
Waste Code List:	MN03

Manifest ID:	596541
Generator ID:	NYD002107399
Generator AI ID:	44658
Transporter 1 ID:	MND980791321
Transporter 1 AI ID:	36828
Transporter 1 AI Name:	MCI Paint & Drywall
Transporter 1 Address:	21400 Hamburg Ave
Transporter 1 City:	Lakeville
Transporter 1 State:	MN
Transporter 1 ZIP:	55044
Transporter 2 ID:	Not reported
Transporter 2 AI ID:	Not reported
Transporter 2 AI Name:	Not reported

TRICO PRODUCTS (Continued) **S119130720**

Transporter 2 Address:	Not reported
Transporter 2 City:	Not reported
Transporter 2 State:	Not reported
Transporter 2 ZIP:	Not reported
TSD ID:	MND981190242
TSD AI ID:	36830
TSD AI Name:	Aptus Nei
TSD Address:	21750 Cedar Ave
TSD City:	Lakeville
TSD State:	MN
TSD Zip:	55044
Gen Copy Recd Date:	6/14/1993 0:00:00
Fac Copy Recd Date:	1993-06-23 00:00:00
Gen Ship Date:	1993-06-09 00:00:00
Trans 1 Recd Date:	1993-06-09 00:00:00
Trans 2 Recd Date:	Not reported
Tsd Recd Date:	1993-06-16 00:00:00
Comments:	Not reported

Detail:

Manifest ID:	596541
Manifest Row:	1
Haz Material Name:	PCB
Haz Class Number:	Not reported
UN NA Number:	NA9188
Packing Group Number:	Not reported
Container Qty:	5
Container Code:	DMML
Waste Qty:	795
Waste Units Code:	AL
Waste Code List:	MN03

K47 **TRICO PRODUCTS CORPORATION #1** **NY UST U003317008**
East **817 WASHINGTON ST** **NY Spills N/A**
< 1/8 **BUFFALO, NY 14203**
0.122 mi.
644 ft. **Site 4 of 6 in cluster K**

Relative:
Higher

Actual:
635 ft.

UST:

Id/Status:	9-220450 / Unregulated/Closed
Program Type:	PBS
Region:	STATE
DEC Region:	9
Expiration Date:	N/A
UTM X:	184018.70291
UTM Y:	4756527.51183
Site Type:	Manufacturing (Other than Chemical)/Processing

Affiliation Records:

Site Id:	52906
Affiliation Type:	Facility Owner
Company Name:	TRICO PRODUCTS CORPORATION
Contact Type:	Not reported
Contact Name:	Not reported
Address1:	817 WASHINGTON ST
Address2:	Not reported
City:	BUFFALO
State:	NY

TRICO PRODUCTS CORPORATION #1 (Continued) **U003317008**

Zip Code:	14203
Country Code:	001
Phone:	(716) 852-5700
EMail:	Not reported
Fax Number:	Not reported
Modified By:	TRANSLAT
Date Last Modified:	2004-03-04

Site Id:	52906
Affiliation Type:	Mail Contact
Company Name:	TRICO PRODUCTS CORPORATION
Contact Type:	Not reported
Contact Name:	Not reported
Address1:	817 WASHINGTON ST
Address2:	Not reported
City:	BUFFALO
State:	NY
Zip Code:	14203
Country Code:	001
Phone:	(716) 852-5700
EMail:	Not reported
Fax Number:	Not reported
Modified By:	TRANSLAT
Date Last Modified:	2004-03-04

Site Id:	52906
Affiliation Type:	Emergency Contact
Company Name:	TRICO PRODUCTS CORPORATION
Contact Type:	Not reported
Contact Name:	A.J. KEMNITZER PLT ENG
Address1:	Not reported
Address2:	Not reported
City:	Not reported
State:	NN
Zip Code:	Not reported
Country Code:	001
Phone:	(716) 852-5700
EMail:	Not reported
Fax Number:	Not reported
Modified By:	TRANSLAT
Date Last Modified:	2004-03-04

Site Id:	52906
Affiliation Type:	Facility Operator
Company Name:	TRICO PRODUCTS CORPORATION #1
Contact Type:	Not reported
Contact Name:	TRICO PRODUCTS CORPORATION
Address1:	Not reported
Address2:	Not reported
City:	Not reported
State:	NN
Zip Code:	Not reported
Country Code:	001
Phone:	(716) 852-5700
EMail:	Not reported
Fax Number:	Not reported
Modified By:	TRANSLAT

TRICO PRODUCTS CORPORATION #1 (Continued) **U003317008**

Date Last Modified: 2004-03-04

Tank Info:

Tank Number: 101
Tank ID: 169457
Tank Status: Closed Prior to Micro Conversion, 03/91
Material Name: Closed Prior to Micro Conversion, 03/91
Capacity Gallons: 30000
Install Date: 11/01/1969
Date Tank Closed: Not reported
Registered: True
Tank Location: Underground
Tank Type: Steel/carbon steel
Material Code: 0003
Common Name of Substance: #6 Fuel Oil (On-Site Consumption)

Tightness Test Method: NN
Date Test: Not reported
Next Test Date: Not reported
Pipe Model: Not reported
Modified By: TRANSLAT
Last Modified: 04/14/2017

Equipment Records:

D00 - Pipe Type - No Piping
A00 - Tank Internal Protection - None
F00 - Pipe External Protection - None
B00 - Tank External Protection - None
C00 - Pipe Location - No Piping
I04 - Overfill - Product Level Gauge (A/G)
G00 - Tank Secondary Containment - None
J02 - Dispenser - Suction Dispenser
H00 - Tank Leak Detection - None

Tank Number: 102
Tank ID: 169458
Tank Status: Closed Prior to Micro Conversion, 03/91
Material Name: Closed Prior to Micro Conversion, 03/91
Capacity Gallons: 1000
Install Date: 05/01/1954
Date Tank Closed: Not reported
Registered: True
Tank Location: Underground
Tank Type: Steel/carbon steel
Material Code: 0009
Common Name of Substance: Gasoline

Tightness Test Method: NN
Date Test: Not reported
Next Test Date: Not reported
Pipe Model: Not reported
Modified By: TRANSLAT
Last Modified: 04/14/2017

Equipment Records:

D00 - Pipe Type - No Piping

TRICO PRODUCTS CORPORATION #1 (Continued) **U003317008**

A00 - Tank Internal Protection - None
F00 - Pipe External Protection - None
B00 - Tank External Protection - None
C00 - Pipe Location - No Piping
G00 - Tank Secondary Containment - None
J02 - Dispenser - Suction Dispenser
H00 - Tank Leak Detection - None
I00 - Overfill - None

SPILLS:

Facility ID:	9212975
Facility Type:	ER
Spill Number:	9212975
DER Facility ID:	189688
Site ID:	230143
DEC Region:	9
Closed Date:	1993-02-19
Spill Cause:	Equipment Failure
Spill Class:	A3
SWIS:	1502
Spill Date:	1993-02-01
Investigator:	RMCROSSE
Referred To:	Not reported
Reported to Dept:	1993-02-17
CID:	Not reported
Water Affected:	Not reported
Spill Source:	Commercial/Industrial
Spill Notifier:	Responsible Party
Cleanup Ceased:	1993-02-19
Cleanup Meets Std:	True
Last Inspection:	1993-02-19
Recommended Penalty:	False
UST Trust:	False
Remediation Phase:	0
Date Entered In Computer:	1993-02-22
Spill Record Last Update:	1993-02-23
Spiller Name:	Not reported
Spiller Company:	TRICO PRODUCTS
Spiller Address:	817 WASHINGTON STREET
Spiller Company:	001
Contact Name:	Not reported
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was RMC 02/19/93: RMC/KEVIN GLASER/RICHARD MELDRUM, TRICO/EVAN CASEY, OSEA/GARY BROWN,OSEA/SITE - INSPECTED TRANSFORMER AREAS. RP WILL SEND KEVIN G. WORK PLAN & SCHEDULE BY 2/26/93. NO LONGER SPILL ISSUE. CLOSE OUT. "
Remarks:	"PCB TRANSFORMERS LEAK. $500,000 CLEANUP PROJECT. 30,000 PPM PCB FROM SOME SAMPLES."

All Materials:

Site ID:	230143
Operable Unit ID:	979976
Operable Unit:	01
Material ID:	402796
Material Code:	0017A
Material Name:	PCB oil
Case No.:	Not reported

TRICO PRODUCTS CORPORATION #1 (Continued) **U003317008**

Material FA:	Petroleum
Quantity:	.00
Units:	Not reported
Recovered:	.00
Oxygenate:	Not reported

K48 **TRICO PRODUCTS** **NY Spills** **S102175117**
SE **GOODELL & WASHINGTON** **N/A**
< 1/8 **BUFFALO, NY**
0.123 mi.
648 ft. **Site 5 of 6 in cluster K**

Relative: **Lower**

Actual: **633 ft.**

SPILLS:

Facility ID:	8600458
Facility Type:	ER
Spill Number:	8600458
DER Facility ID:	162161
Site ID:	194593
DEC Region:	9
Closed Date:	1986-04-21
Spill Cause:	Unknown
Spill Class:	Not reported
SWIS:	1502
Spill Date:	1986-04-18
Investigator:	MJHINTON
Referred To:	Not reported
Reported to Dept:	1986-04-18
CID:	Not reported
Water Affected:	Not reported
Spill Source:	Commercial/Industrial
Spill Notifier:	Citizen
Cleanup Ceased:	1986-04-21
Cleanup Meets Std:	True
Last Inspection:	Not reported
Recommended Penalty:	False
UST Trust:	False
Remediation Phase:	0
Date Entered In Computer:	1986-05-08
Spill Record Last Update:	1986-09-03
Spiller Name:	Not reported
Spiller Company:	TRICO PRODUCTS
Spiller Address:	Not reported
Spiller Company:	001
Contact Name:	Not reported
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was MJH "
Remarks:	"FUMES IN SEWER-BUFFALO SEWER AUTHORITY NOTIFIED"

All Materials:

Site ID:	194593
Operable Unit ID:	896711
Operable Unit:	01
Material ID:	480624
Material Code:	0059A
Material Name:	solvents
Case No.:	Not reported
Material FA:	Other

TRICO PRODUCTS (Continued) **S102175117**

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

K49 **FORMER TRICO PLANT** **NY BROWNFIELDS** **S113913742**
ESE **791 WASHINGTON STREET** **N/A**
1/8-1/4 **BUFFALO, NY 14203**
0.125 mi.
662 ft. **Site 6 of 6 in cluster K**

Relative: **Higher**

Actual: **634 ft.**

BROWNFIELDS:

Program:	BCP
Site Code:	485846
Acres:	2.11
HW Code:	C915281
SWIS:	1502
Town:	Buffalo (c)
Record Added Date:	08/15/2013
Record Updated Date:	07/06/2017
Update By:	CRSTANIS
Site Description:	Location: The site is located in the densely developed urban center of downtown Buffalo. The property is immediately bounded by commercial and residential properties to the north; Ellicott Street and a parking lot to the east; Goodell Street and Eastman Machine Company to the south; and Washington Street and commercial and residential properties to the west. Site Features: The site consists of a complex of five industrial buildings totaling 617,627 square feet and a small portion of former Burton Street. The buildings are currently vacant. Current Zoning and Land Use: The site is zoned CM (General Commercial). Past Use of the Site: The oldest of the five buildings was constructed circa 1890 as a portion of the Christian Weyand Brewery which operated at the site until the enactment of prohibition. The building was purchased in 1920 by Trico Products Corporation for the manufacturing of windshield wipers for the automotive industry. The remaining buildings were constructed from 1920 to 1954. The Trico Products Corporation operated at the site until circa 1990. Operations included electroplating, smelting, die-casting, rubber extrusion and metal fabrication. Site Geology and Hydrogeology: The site primarily consists of a building. Below the concrete building slab, there is a thin veneer (2 to 3 inches) of fill material consisting of black fine to course sand with ash. This is underlain with native soils generally consisting of a varying thickness and alternating layers of reddish-brown sandy lean clays and sandy silts to depths of 40 feet below the building floor. The bedrock consists of Onondaga Formation which has an approximate thickness of 110 to 160 feet. The depth to groundwater below the building basement floor is approximately 1.65 feet. Regional groundwater flow is estimated west toward Lake Erie. 10/15/13-DEC signed the Brownfield Cleanup Program Acceptance Letter for this site. 10/24/13- DEC signed the Brownfield Cleanup Agreement for this site.
Env Problem:	A remedial investigation (RI) was completed in December 2016. The soil/fill and groundwater samples were analyzed for Target Compound List (TCL) volatiles organic compounds (VOCs), semi-volatile organic compounds (SVOCs), polychlorinated bi-phenyls (PCBs), pesticides, herbicides, Target Analyte List (TAL) metals, and cyanide,. Based

FORMER TRICO PLANT (Continued) **S113913742**

upon the RI, groundwater is the prime medium of contamination at the site. Groundwater: Groundwater at the site is contaminated with chlorinated volatile organic compounds (cVOCs) [tetrachloroethene (PCE), trichloroethene (TCE), cis-dichloroethene (cis-DCE), trans-dichloroethene (trans-DCE), and vinyl chloride] related to the solvents used at the site during plant operations. The highest concentrations of cVOCs in groundwater were: PCE 4.9 parts per billion (ppb) (std. - 5 ppb), TCE 89 ppb (std. 5 ppb), cis-DCE -140 ppb (std. - 5 ppb), trans-DCE -200 ppb (std. -5 ppb), and vinyl chloride 2.1 ppb (std. - 2 ppb). Other parameters exceeding the Groundwater Quality Standards (GWQS) were: dissolved metals [cobalt - 7.3 ppb (std. -5 ppb), iron - 530 ppb (std. - 300 ppb), and magnesium - 123,000 ppb (std. - 35,000 ppb)] and PAHs [benzo(b)flouranthene - 0.71 ppb (std.- 0.002 ppb) and chrysene - 0.56 ppb (std.- 0.002 ppb)]. Iron and magnesium are natural occurring metals. Polychlorinated bi-phenyls (PCBs), pesticides, and herbicides were not detected in groundwater. Off-site Groundwater: Levels of TCE (0.33 ppb) and cis-DCE (2.8 ppb) found in off-site monitoring wells were below their respective groundwater quality standards. Soil/Fill: All soil that exists on the site is beneath a building or the former Burton Street (asphalt cover), therefore no surface soil exists on site. Levels of metals (arsenic, barium, and mercury), PCBs and PAHs were found above restricted residential soil cleanup objectives (RRSCOs) in soil/fill samples collected from beneath the building during a Limited Sub-surface Investigation in 2013. Total PAHs were below 50 ppm. During the RI, RRSCOs were exceeded only for arsenic (26.9 ppm; RRSCO-16 ppm) at only one sampling location. The levels of PAHs, PCBs, and cVOCs did not exceed RRSCOs in any RI sample. The levels of contamination beneath former Burton Street did not exceed RRSCOs. Drainage Structures: The material in the drainage structures contained residual oil. The concentrations of volatile organic compounds were below the restricted residential use soil cleanup objectives. Standing Water in the Basement: One pesticide [4,4 -DDD (0.08 ppb)] was detected in basement water above the GWQS (0.01 ppb). The levels of metals such as barium, manganese, nickel, and zinc were below the GWQS/Guidance Values. Sub-slab Vapor and Indoor Air: The concentrations of volatile contaminants of concern in sub-slab vapor samples were up to 19,000 microgram per cubic meter (ug/m3) - TCE, 730 ug/m3 - -cis-dichloroethene, 99 ug/m3 - trans-dichloroethene, 2.8 ug/m3 tetrachloroethene, and 0.51 ug/m3 - vinyl chloride. The indoor air samples showed 35 ug/m3 - TCE, 5.9 ug/m3 - cis-dichloroethene , 0.42 ug/m3 trans-dichloroethene, 0.24 ug/m3 tetrachloroethene , and 0.089 ug/m3 vinyl chloride. Soil vapor intrusion appears to be isolated to this building complex as the detected levels in sub-slab vapor are limited in nature and not expected to exist in off-site areas.

Health Problem: Direct contact with contaminants in soil is unlikely as the site is covered with buildings or pavement. People are not drinking contaminated groundwater as the area is served by a public water supply that is not affected by the site. Contact with sediments and standing water in the basement is possible. Volatile organic compounds in the groundwater or soil may move into the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. Because the building is vacant, inhalation of site-related contaminants due to

FORMER TRICO PLANT (Continued) **S113913742**

	soil vapor intrusion does not represent a current concern. However, the potential exists for people to inhale site contaminants if the building is reoccupied. Soil vapor intrusion concerns are limited to the on-site building only.
Dump:	False
Structure:	False
Lagoon:	False
Landfill:	False
Pond:	False
Disp Start:	Not reported
Disp Term:	Not reported
Lat/Long:	Not reported
Dell:	Not reported
Record Add:	8/15/2013 2:21:00 PM
Record Upd:	5/23/2017 9:50:00 AM
Updated By:	JSWALIA
Own Op:	Applicant/Requestor
Sub Type:	P03
Owner Name:	Peter L. Krog, Sr.
Owner Company:	847 Main Street, LLC
Owner Address:	4 Centre Drive
Owner Addr2:	Not reported
Owner City,St,Zip:	Orchard Park, NY 14127
Owner Country:	United States of America
Own Op:	Document Repository
Sub Type:	NNN
Owner Name:	Mary Jean Jakubowski
Owner Company:	Buffalo and Erie County Public Library
Owner Address:	1 Lafayette Square
Owner Addr2:	Not reported
Owner City,St,Zip:	Buffalo, NY 14203
Owner Country:	United States of America
Own Op:	Owner
Sub Type:	E
Owner Name:	Not reported
Owner Company:	Buffalo Brownfield Restoration Corporation
Owner Address:	95 Perry Street
Owner Addr2:	Not reported
Owner City,St,Zip:	Buffalo, NY 14203
Owner Country:	United States of America
Own Op:	Applicant/Requestor
Sub Type:	P03
Owner Name:	Paul Neureuter
Owner Company:	791 Washington Street, LLC
Owner Address:	4 Centre Drive
Owner Addr2:	Not reported
Owner City,St,Zip:	Orchard Park, NY 14127
Owner Country:	United States of America
HW Code:	C915281
Waste Type:	trichloroethene (TCE)
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915281
Waste Type:	polycyclic aromatic hydrocarbons (PAHS), total
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915281

FORMER TRICO PLANT (Continued) **S113913742**

Waste Type:	arsenic
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915281
Waste Type:	barium
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915281
Waste Type:	1,2-dichloroethene
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915281
Waste Type:	mercury
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915281
Waste Type:	vinyl chloride
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915281
Waste Type:	tetrachloroethene (PCE)
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915281
Waste Type:	dichloroethene (cis-1,2-)
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915281
Waste Type:	dichloroethene (trans-1,2-)
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
Crossref ID:	C915281-10-13
Cross Ref Type Code:	23
Cross Ref Type:	Agreement/Consent Order Number
Record Added Date:	2/28/2017 11:39:00 AM
Record Updated:	2/28/2017 11:39:00 AM
Updated By:	JSWALIA
Crossref ID:	October 24, 2013
Cross Ref Type Code:	26
Cross Ref Type:	Agreement/Consent Order Date
Record Added Date:	2/28/2017 11:37:00 AM
Record Updated:	2/28/2017 11:37:00 AM
Updated By:	JSWALIA
Crossref ID:	915249
Cross Ref Type Code:	02
Cross Ref Type:	HW Site ID
Record Added Date:	8/29/2014 10:31:00 AM
Record Updated:	8/29/2014 10:31:00 AM
Updated By:	MLDOSTER
Crossref ID:	NYD002107399
Cross Ref Type Code:	06
Cross Ref Type:	RCRA EPA ID No.
Record Added Date:	11/18/2013 10:11:00 AM
Record Updated:	11/18/2013 10:11:00 AM
Updated By:	DFLATES

50
SE
1/8-1/4
0.159 mi.
841 ft.

EASTMAN MACHINE CO
779 WASHINGTON ST
BUFFALO, NY 14075

RCRA-CESQG
US AIRS
FINDS
ECHO
NY MANIFEST

1000414863
NYD002107555

Relative:
Lower

Actual:
631 ft.

RCRA-CESQG:

Date form received by agency:	01/01/2007
Facility name:	EASTMAN MACHINE CO
Facility address:	779 WASHINGTON ST BUFFALO, NY 14075
EPA ID:	NYD002107555
Mailing address:	WASHINGTON ST BUFFALO, NY 14203
Contact:	Not reported
Contact address:	WASHINGTON ST BUFFALO, NY 14203
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:	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 hazardous waste

Owner/Operator Summary:

Owner/operator name:	Not reported
Owner/operator address:	NOT REQUIRED NOT REQUIRED, WY 99999
Owner/operator country:	US
Owner/operator telephone:	212-555-1212
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	Not reported
Owner/operator address:	NOT REQUIRED NOT REQUIRED, WY 99999
Owner/operator country:	US
Owner/operator telephone:	212-555-1212
Owner/operator email:	Not reported
Owner/operator fax:	Not reported

EASTMAN MACHINE CO (Continued) **1000414863**

Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
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
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 01/01/2006
Site name: EASTMAN MACHINE CO
Classification: Small Quantity Generator

Date form received by agency: 07/14/1999
Site name: EASTMAN MACHINE CO
Classification: Small Quantity Generator

Date form received by agency: 12/11/1984
Site name: EASTMAN MACHINE CO
Classification: Large Quantity Generator

. Waste code: X002
. Waste name: POLYCHLORINATED BIPHENOLS (PCBs)

Facility Has Received Notices of Violations:
Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 04/21/1989
Date achieved compliance: 03/29/1990
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 11/10/1989
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:

EASTMAN MACHINE CO (Continued) **1000414863**

Evaluation date: 05/04/2006
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 02/11/1998
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 04/21/1989
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 03/29/1990
Evaluation lead agency: State

US AIRS MINOR:
Envid: 1000414863
Region Code: 02
Programmatic ID: AIR NY0000009140200227
Facility Registry ID: 110005971083
D and B Number: Not reported
Primary SIC Code: 3552
NAICS Code: 333292
Default Air Classification Code: MIN
Facility Type of Ownership Code: POF
Air CMS Category Code: Not reported
HPV Status: Not reported

US AIRS MINOR:
Region Code: 02
Programmatic ID: AIR NY0000009140200227
Facility Registry ID: 110005971083
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1999-02-22 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

US AIRS MINOR:
Envid: 1000414863
Region Code: 02
Programmatic ID: AIR NY0000009140200227
Facility Registry ID: 110005971083
D and B Number: Not reported
Primary SIC Code: 3552
NAICS Code: 333292
Default Air Classification Code: MIN
Facility Type of Ownership Code: POF
Air CMS Category Code: Not reported
HPV Status: Not reported

EASTMAN MACHINE CO (Continued) **1000414863**

US AIRS MINOR:
- Region Code: 02
- Programmatic ID: AIR NY0000009140200227
- Facility Registry ID: 110005971083
- Air Operating Status Code: OPR
- Default Air Classification Code: MIN
- Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
- Activity Date: 1999-02-22 00:00:00
- Activity Status Date: Not reported
- Activity Group: Compliance Monitoring
- Activity Type: Inspection/Evaluation
- Activity Status: Not reported

FINDS:

Registry ID: 110005971083

Environmental Interest/Information System

AFS (Aerometric Information Retrieval System (AIRS) Facility Subsystem) replaces the former Compliance Data System (CDS), the National Emission Data System (NEDS), and the Storage and Retrieval of Aerometric Data (SAROAD). AIRS is the national repository for information concerning airborne pollution in the United States. AFS is used to track emissions and compliance data from industrial plants. AFS data are utilized by states to prepare State Implementation Plans to comply with regulatory programs and by EPA as an input for the estimation of total national emissions. AFS is undergoing a major redesign to support facility operating permits required under Title V of the Clean Air Act.

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.

FIS (New York - Facility Information System) is New York's Department of Environmental Conservation (DEC) information system for tracking environmental facility information found across the State.

AIR MINOR

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
- Envid: 1000414863
- Registry ID: 110005971083
- DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110005971083

NY MANIFEST:
- Country: USA

EASTMAN MACHINE CO (Continued) **1000414863**

EPA ID:	NYD002107555
Facility Status:	Not reported
Location Address 1:	779 WASHINGTON STREET
Code:	BP
Location Address 2:	Not reported
Total Tanks:	Not reported
Location City:	BUFFALO
Location State:	NY
Location Zip:	14203
Location Zip 4:	Not reported

NY MANIFEST:

EPAID:	NYD002107555
Mailing Name:	CUTTING ROOM APPLIANCE
Mailing Contact:	CUTTING ROOM APPLIANCE
Mailing Address 1:	779 WASHINGTON STREET
Mailing Address 2:	Not reported
Mailing City:	BUFFALO
Mailing State:	NY
Mailing Zip:	14203
Mailing Zip 4:	Not reported
Mailing Country:	USA
Mailing Phone:	7168522200

NY MANIFEST:

Document ID:	Not reported
Manifest Status:	Not reported
seq:	Not reported
Year:	2007
Trans1 State ID:	TXR000050930
Trans2 State ID:	Not reported
Generator Ship Date:	05/08/2007
Trans1 Recv Date:	05/08/2007
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	05/08/2007
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported
Generator EPA ID:	NYD002107555
Trans1 EPA ID:	Not reported
Trans2 EPA ID:	Not reported
TSDF ID 1:	NYD981556541
TSDF ID 2:	Not reported
Manifest Tracking Number:	000495677SKS
Import Indicator:	N
Export Indicator:	N
Discr Quantity Indicator:	N
Discr Type Indicator:	N
Discr Residue Indicator:	N
Discr Partial Reject Indicator:	N
Discr Full Reject Indicator:	N
Manifest Ref Number:	Not reported
Alt Facility RCRA ID:	Not reported
Alt Facility Sign Date:	Not reported
MGMT Method Type Code:	H141
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported

EASTMAN MACHINE CO (Continued) **1000414863**

Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Quantity:	60
Units:	G - Gallons (liquids only)* (8.3 pounds)
Number of Containers:	3
Container Type:	DM - Metal drums, barrels
Handling Method:	R Material recovery of more than 75 percent of the total material.
Specific Gravity:	1
Waste Code:	D039
Waste Code 1_2:	Not reported
Waste Code 1_3:	Not reported
Waste Code 1_4:	Not reported
Waste Code 1_5:	Not reported
Waste Code 1_6:	Not reported

Click this hyperlink while viewing on your computer to access
175 additional NY_MANIFEST: record(s) in the EDR Site Report.

51
SSE
1/8-1/4
0.160 mi.
846 ft.

UNIFORM NAME MAKERS INC **NY LTANKS** **S107523664**
742 WASHINGTON STREET **N/A**
BUFFALO, NY 14203

Relative:
Lower

Actual:
629 ft.

LTANKS:

Facility ID:	0551547
Site ID:	358731
Closed Date:	2006-03-06
Spill Number:	0551547
Spill Date:	2006-01-26
Spill Cause:	Tank Failure
Spill Source:	Commercial/Industrial
Spill Class:	B3
Cleanup Ceased:	Not reported
SWIS:	1502
Investigator:	RMCROSSE
Referred To:	Not reported
Reported to Dept:	2006-01-26
CID:	Not reported
Water Affected:	Not reported
Spill Notifier:	Other
Last Inspection:	2006-01-26
Recommended Penalty:	False
Meets Standard:	True
UST Involvement:	False
Remediation Phase:	0
Date Entered In Computer:	2006-01-26
Spill Record Last Update:	2006-03-06
Spiller Name:	Not reported
Spiller Company:	UNIFORM NAME MAKERS
Spiller Address:	742 WASHINGTON
Spiller County:	001
Spiller Contact:	WAREN CLARK
Spiller Phone:	Not reported
Spiller Extention:	Not reported
DEC Region:	9

UNIFORM NAME MAKERS INC (Continued) **S107523664**

DER Facility ID: 308723
DEC Memo: "01/26/06 RMC/SITE. INSPECTED TANK EXCAVATION, EXCAVATION VISUALLY CLEAN, HAVE SEVERAL DRUMS FOR DISPOSAL. FOUND ONLY A SMALL AMOUNT OF CONTAMINATION. EXCAVATION IS BETWEEN THE BUILDING AND WASHINGTON. FIVE SAMPLES TAKEN, TESTING AND DISPOSAL DUE 2/28/06. 03/06/06 RMC/FILE. RECEIVED REPORT. 5 EXCAVATION SAMPLES TAKEN, ALL MEET STARS. DISPOSAL DOCUMENTED FOR 4 DRUMS, NO FURTHER ACTION REQUIRED, LETTER, CLOSE OUT. "
Remarks: "contamination found while removing 1k fuel oil ust."

All Materials:
Site ID: 358731
Operable Unit ID: 1115959
Operable Unit: 01
Material ID: 2106069
Material Code: 0001A
Material Name: #2 fuel oil
Case No.: Not reported
Material FA: Petroleum
Quantity: Not reported
Units: Not reported
Recovered: Not reported
Oxygenate: False

L52 **UNITED IMPORT MOTORS** **NY AST** **U003399999**
South **548 PEARL STREET** **N/A**
1/8-1/4 **BUFFALO, NY 14202**
0.166 mi.
877 ft. **Site 1 of 5 in cluster L**

Relative: AST:
Lower
Region: STATE
Actual: DEC Region: 9
629 ft. Site Status: Unregulated/Closed
Facility Id: 9-600239
Program Type: PBS
UTM X: 183750.35249
UTM Y: 4756357.91185
Expiration Date: N/A
Site Type: Other Wholesale/Retail Sales

Affiliation Records:
Site Id: 55101
Affiliation Type: Mail Contact
Company Name: UNITED IMPORT MOTORS
Contact Type: Not reported
Contact Name: ROBERT WASSON
Address1: 548 PEARL STREET
Address2: Not reported
City: BUFFALO
State: NY
Zip Code: 14202
Country Code: 001
Phone: (716) 854-1100
EMail: Not reported
Fax Number: Not reported
Modified By: TRANSLAT
Date Last Modified: 2004-03-04

UNITED IMPORT MOTORS (Continued) **U003399999**

Site Id:	55101
Affiliation Type:	Facility Owner
Company Name:	UNITED IMPORT MOTORS
Contact Type:	PRESIDENT
Contact Name:	FRANK C. ERNST
Address1:	175 GREAT ARROW AVE.
Address2:	Not reported
City:	BUFFALO
State:	NY
Zip Code:	14207
Country Code:	001
Phone:	(716) 874-4650
EMail:	Not reported
Fax Number:	Not reported
Modified By:	bfgraber
Date Last Modified:	2007-12-13

Site Id:	55101
Affiliation Type:	Facility Operator
Company Name:	UNITED IMPORT MOTORS
Contact Type:	Not reported
Contact Name:	BOB RODDIE
Address1:	Not reported
Address2:	Not reported
City:	Not reported
State:	NN
Zip Code:	Not reported
Country Code:	999
Phone:	(716) 854-1100
EMail:	Not reported
Fax Number:	Not reported
Modified By:	AESKALSK
Date Last Modified:	2005-10-28

Site Id:	55101
Affiliation Type:	Emergency Contact
Company Name:	UNITED IMPORT MOTORS
Contact Type:	Not reported
Contact Name:	BOB RODDIE
Address1:	Not reported
Address2:	Not reported
City:	Not reported
State:	NN
Zip Code:	Not reported
Country Code:	999
Phone:	(716) 854-1100
EMail:	Not reported
Fax Number:	Not reported
Modified By:	AESKALSK
Date Last Modified:	2005-10-28

Tank Info:

Tank Number:	001
Tank Id:	171882
Material Code:	0022
Common Name of Substance:	Waste Oil/Used Oil

UNITED IMPORT MOTORS (Continued) **U003399999**

Equipment Records:

D00 - Pipe Type - No Piping
G00 - Tank Secondary Containment - None
J02 - Dispenser - Suction Dispenser
B00 - Tank External Protection - None
C00 - Pipe Location - No Piping
F00 - Pipe External Protection - None
A00 - Tank Internal Protection - None
H00 - Tank Leak Detection - None
I00 - Overfill - None
L09 - Piping Leak Detection - Exempt Suction Piping

Tank Location:	3
Tank Type:	Steel/Carbon Steel/Iron
Tank Status:	Closed - Removed
Pipe Model:	Not reported
Install Date:	Not reported
Capacity Gallons:	275
Tightness Test Method:	NN
Date Test:	Not reported
Next Test Date:	Not reported
Date Tank Closed:	06/21/2013
Register:	True
Modified By:	KAMCARDL
Last Modified:	04/14/2017
Material Name:	waste oil/used oil

Tank Number:	002
Tank Id:	171883
Material Code:	0022
Common Name of Substance:	Waste Oil/Used Oil

Equipment Records:

D00 - Pipe Type - No Piping
G00 - Tank Secondary Containment - None
J02 - Dispenser - Suction Dispenser
B00 - Tank External Protection - None
C00 - Pipe Location - No Piping
F00 - Pipe External Protection - None
H00 - Tank Leak Detection - None
I00 - Overfill - None
L09 - Piping Leak Detection - Exempt Suction Piping
A00 - Tank Internal Protection - None

Tank Location:	3
Tank Type:	Steel/Carbon Steel/Iron
Tank Status:	Closed - Removed
Pipe Model:	Not reported
Install Date:	Not reported
Capacity Gallons:	275
Tightness Test Method:	NN
Date Test:	Not reported
Next Test Date:	Not reported
Date Tank Closed:	10/28/2005
Register:	True
Modified By:	AESKALSK
Last Modified:	04/14/2017

UNITED IMPORT MOTORS (Continued) **U003399999**

Material Name: waste oil/used oil

53
WSW
1/8-1/4
0.168 mi.
886 ft.

THE BUFFALO CLUB
388 DELAWARE AVE
BUFFALO, NY 14202

NY AST **U004082327**
N/A

Relative:
Lower

Actual:
623 ft.

AST:

Region:	STATE
DEC Region:	9
Site Status:	Unregulated/Closed
Facility Id:	9-223905
Program Type:	PBS
UTM X:	183555.88821
UTM Y:	4756428.85492
Expiration Date:	N/A
Site Type:	Other

Affiliation Records:

Site Id:	53201
Affiliation Type:	Facility Owner
Company Name:	THE BUFFALO CLUB
Contact Type:	GENERAL MANAGER
Contact Name:	DANIEL R. FRANKLIN
Address1:	388 DELAWARE AVE
Address2:	Not reported
City:	BUFFALO
State:	NY
Zip Code:	14202
Country Code:	001
Phone:	(716) 886-6400
EMail:	Not reported
Fax Number:	Not reported
Modified By:	SLZIEMBA
Date Last Modified:	2012-07-31

Site Id:	53201
Affiliation Type:	Mail Contact
Company Name:	THE BUFFALO CLUB
Contact Type:	Not reported
Contact Name:	RICHARD JANKOWSKI
Address1:	388 DELAWARE AVE
Address2:	Not reported
City:	BUFFALO
State:	NY
Zip Code:	14202
Country Code:	001
Phone:	(716) 886-6400
EMail:	Not reported
Fax Number:	Not reported
Modified By:	SLZIEMBA
Date Last Modified:	2012-07-31

Site Id:	53201
Affiliation Type:	Facility Operator
Company Name:	THE BUFFALO CLUB
Contact Type:	Not reported

THE BUFFALO CLUB (Continued) **U004082327**

Contact Name:	RICHARD JANKOWSKI
Address1:	Not reported
Address2:	Not reported
City:	Not reported
State:	NN
Zip Code:	Not reported
Country Code:	999
Phone:	(716) 886-6400
EMail:	Not reported
Fax Number:	Not reported
Modified By:	SLZIEMBA
Date Last Modified:	2012-07-31

Site Id:	53201
Affiliation Type:	Emergency Contact
Company Name:	THE BUFFALO CLUB
Contact Type:	Not reported
Contact Name:	RICHARD JANKOWSKI
Address1:	Not reported
Address2:	Not reported
City:	Not reported
State:	NN
Zip Code:	Not reported
Country Code:	999
Phone:	(716) 886-6400
EMail:	Not reported
Fax Number:	Not reported
Modified By:	SLZIEMBA
Date Last Modified:	2012-07-31

Tank Info:

Tank Number:	1
Tank Id:	177569
Material Code:	0001
Common Name of Substance:	#2 Fuel Oil (On-Site Consumption)

Equipment Records:

F06 - Pipe External Protection - Wrapped
G03 - Tank Secondary Containment - Vault (w/o access)
H00 - Tank Leak Detection - None
D01 - Pipe Type - Steel/Carbon Steel/Iron
A00 - Tank Internal Protection - None
B01 - Tank External Protection - Painted/Asphalt Coating
I04 - Overfill - Product Level Gauge (A/G)
C01 - Pipe Location - Aboveground
J03 - Dispenser - Gravity

Tank Location:	6
Tank Type:	Steel/Carbon Steel/Iron
Tank Status:	Closed - Removed
Pipe Model:	Not reported
Install Date:	06/01/1999
Capacity Gallons:	4000
Tightness Test Method:	NN
Date Test:	Not reported
Next Test Date:	Not reported

THE BUFFALO CLUB (Continued) **U004082327**

Date Tank Closed: 03/18/2013
Register: True
Modified By: aeskalsk
Last Modified: 04/14/2017
Material Name: #2 fuel oil (on-site consumption)

Tank Number: 1-A
Tank Id: 177570
Material Code: 0001
Common Name of Substance: #2 Fuel Oil (On-Site Consumption)

Equipment Records:
B00 - Tank External Protection - None
C00 - Pipe Location - No Piping
F00 - Pipe External Protection - None
H00 - Tank Leak Detection - None
I04 - Overfill - Product Level Gauge (A/G)
G07 - Tank Secondary Containment - Excavation Liner
A00 - Tank Internal Protection - None
D01 - Pipe Type - Steel/Carbon Steel/Iron
J02 - Dispenser - Suction Dispenser

Tank Location: 6
Tank Type: Steel/Carbon Steel/Iron
Tank Status: Closed - Removed
Pipe Model: Not reported
Install Date: 12/01/1966
Capacity Gallons: 4975
Tightness Test Method: NN
Date Test: Not reported
Next Test Date: Not reported
Date Tank Closed: 07/01/1999
Register: True
Modified By: TRANSLAT
Last Modified: 04/14/2017
Material Name: #2 fuel oil (on-site consumption)

M54 **CHAKRA COMMUNICATIONS INC** **RCRA-SQG** **1005905757**
East **644 ELLICOTT ST** **FINDS** **NYR000108415**
1/8-1/4 **BUFFALO, NY 14203** **ECHO**
0.172 mi. **NY MANIFEST**
906 ft. **Site 1 of 2 in cluster M**

Relative:
Higher

Actual:
636 ft.

RCRA-SQG:
Date form received by agency: 02/23/2007
Facility name: CHAKRA COMMUNICATIONS INC
Facility address: 644 ELLICOTT ST
BUFFALO, NY 14203
EPA ID: NYR000108415
Mailing address: ELLICOTT ST
BUFFALO, NY 14203
Contact: JOE GRIFFIN
Contact address: ELLICOTT ST
BUFFALO, NY 14203
Contact country: US
Contact telephone: 716-505-7325
Contact email: Not reported

CHAKRA COMMUNICATIONS INC (Continued) **1005905757**

EPA Region: 02
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: ALTAIRE MANAGEMENT LLC
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 02/23/2007
Owner/Op end date: Not reported

Owner/operator name: CENTURY CENTRE LTD PARTNERSHIP
Owner/operator address: LOVELL PLACE
ERIE, PA 16503
Owner/operator country: US
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 02/23/2007
Owner/Op end date: Not reported

Owner/operator name: TIMOTHY A BENDER
Owner/operator address: 150 N WYOMING AVE
SOUTH ORANGE, NJ 07079
Owner/operator country: Not reported
Owner/operator telephone: 973-762-2355
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
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

CHAKRA COMMUNICATIONS INC (Continued) **1005905757**

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

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D011
. Waste name: SILVER

Historical Generators:
Date form received by agency: 02/22/2007
Site name: CHAKRA COMMUNICATIONS INC
Classification: Small Quantity Generator

Date form received by agency: 02/22/2007
Site name: CHAKRA COMMUNICATIONS INC
Classification: Small Quantity Generator

Date form received by agency: 08/07/2002
Site name: DIGICON IMAGING INC
Classification: Small Quantity Generator

. Waste code: D000
. Waste name: Not Defined

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D011
. Waste name: SILVER

Violation Status: No violations found

FINDS:

Registry ID: 110012567784

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.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1005905757

CHAKRA COMMUNICATIONS INC (Continued) **1005905757**

Registry ID: 110012567784
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110012567784

NY MANIFEST:
Country: USA
EPA ID: NYR000108415
Facility Status: Not reported
Location Address 1: 644 ELLICOTT ST
Code: BP
Location Address 2: Not reported
Total Tanks: Not reported
Location City: BUFFALO
Location State: NY
Location Zip: 14204
Location Zip 4: Not reported

NY MANIFEST:
EPAID: NYR000108415
Mailing Name: CHAKRA COMMUNICATIONS
Mailing Contact: BILL LUNGER
Mailing Address 1: 644 ELLICOTT ST
Mailing Address 2: Not reported
Mailing City: BUFFALO
Mailing State: NY
Mailing Zip: 14204
Mailing Zip 4: Not reported
Mailing Country: USA
Mailing Phone: 7165057300

NY MANIFEST:
Document ID: Not reported
Manifest Status: Not reported
seq: Not reported
Year: 2011
Trans1 State ID: TXR000050930
Trans2 State ID: NJD071629976
Generator Ship Date: 01/04/2011
Trans1 Recv Date: 01/04/2011
Trans2 Recv Date: 01/07/2011
TSD Site Recv Date: 01/15/2011
Part A Recv Date: Not reported
Part B Recv Date: Not reported
Generator EPA ID: NYR000108415
Trans1 EPA ID: Not reported
Trans2 EPA ID: Not reported
TSDF ID 1: KYD053348108
TSDF ID 2: Not reported
Manifest Tracking Number: 003338848FLE
Import Indicator: N
Export Indicator: N
Discr Quantity Indicator: N
Discr Type Indicator: N
Discr Residue Indicator: N
Discr Partial Reject Indicator: N
Discr Full Reject Indicator: N
Manifest Ref Number: Not reported
Alt Facility RCRA ID: Not reported

CHAKRA COMMUNICATIONS INC (Continued) **1005905757**

Alt Facility Sign Date:	Not reported
MGMT Method Type Code:	H061
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Quantity:	1200.0
Units:	P - Pounds
Number of Containers:	4.0
Container Type:	DM - Metal drums, barrels
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	1.0
Waste Code:	D001
Waste Code 1_2:	D018
Waste Code 1_3:	D039
Waste Code 1_4:	Not reported
Waste Code 1_5:	Not reported
Waste Code 1_6:	Not reported

Click this hyperlink while viewing on your computer to access
22 additional NY_MANIFEST: record(s) in the EDR Site Report.

N55 **NIAGARA MOHAWK A NATIONAL GRID CO** **NY MANIFEST** **S118086875**
SSW **W TUPPER ST** **N/A**
1/8-1/4 **BUFFALO, NY 14202**
0.182 mi.
962 ft. **Site 1 of 3 in cluster N**

Relative: **Lower**

Actual: **625 ft.**

NY MANIFEST:

Country:	USA
EPA ID:	NYP000971747
Facility Status:	Not reported
Location Address 1:	WEST TUPPER STREET
Code:	BP
Location Address 2:	Not reported
Total Tanks:	Not reported
Location City:	BUFFALO
Location State:	NY
Location Zip:	14202
Location Zip 4:	Not reported

NY MANIFEST:

EPAID:	NYP000971747
Mailing Name:	NIAGARA MOHAWK A NATIONAL GRID CO
Mailing Contact:	L MONTESANO
Mailing Address 1:	144 KENSINGTON AVE
Mailing Address 2:	Not reported
Mailing City:	BUFFALO
Mailing State:	NY
Mailing Zip:	14214
Mailing Zip 4:	Not reported
Mailing Country:	USA
Mailing Phone:	7168317209

NIAGARA MOHAWK A NATIONAL GRID CO (Continued) **S118086875**

NY MANIFEST:

Document ID:	Not reported
Manifest Status:	Not reported
seq:	Not reported
Year:	2015
Trans1 State ID:	NYD986980753
Trans2 State ID:	Not reported
Generator Ship Date:	04/23/2015
Trans1 Recv Date:	04/23/2015
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	04/30/2015
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported
Generator EPA ID:	NYP000971747
Trans1 EPA ID:	Not reported
Trans2 EPA ID:	Not reported
TSDF ID 1:	NYD049836679
TSDF ID 2:	Not reported
Manifest Tracking Number:	003045075FLE
Import Indicator:	N
Export Indicator:	N
Discr Quantity Indicator:	N
Discr Type Indicator:	N
Discr Residue Indicator:	N
Discr Partial Reject Indicator:	N
Discr Full Reject Indicator:	N
Manifest Ref Number:	Not reported
Alt Facility RCRA ID:	Not reported
Alt Facility Sign Date:	Not reported
MGMT Method Type Code:	H141
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Quantity:	605
Units:	G - Gallons (liquids only)* (8.3 pounds)
Number of Containers:	11
Container Type:	DM - Metal drums, barrels
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	1
Waste Code:	D008
Waste Code 1_2:	Not reported
Waste Code 1_3:	Not reported
Waste Code 1_4:	Not reported
Waste Code 1_5:	Not reported
Waste Code 1_6:	Not reported

Click this hyperlink while viewing on your computer to access
2 additional NY_MANIFEST: record(s) in the EDR Site Report.

N56
SSW
1/8-1/4
0.182 mi.
962 ft.

NATIONAL GRID MH46 W TUPPER ST BUFFALO
W TUPPER ST
BUFFALO, NY 14202

Site 2 of 3 in cluster N

RCRA-LQG
FINDS
ECHO

1017788025
NYP000971747

Relative:
Lower

Actual:
625 ft.

RCRA-LQG:

Date form received by agency:	02/24/2016
Facility name:	NATIONAL GRID MH46 W TUPPER ST BUFFALO
Facility address:	W TUPPER ST BUFFALO, NY 14202
EPA ID:	NYP000971747
Mailing address:	ERIE BLVD W SYRACUSE, NY 13202
Contact:	STEPHEN P HALLER
Contact address:	ERIE BLVD W A-3 SYRACUSE, NY 13202
Contact country:	US
Contact telephone:	315-428-5206
Contact email:	STEPHEN.HALLER@NATIONALGRID.COM
EPA Region:	02
Classification:	Large Quantity Generator
Description:	Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg 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; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; 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 more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name:	NATIONAL GRID
Owner/operator address:	ERIE BLVD W SYRACUSE, NY 13202
Owner/operator country:	US
Owner/operator telephone:	Not reported
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	01/01/1900
Owner/Op end date:	Not reported

Owner/operator name:	NIAGARA MOHAWK POWER CORP
Owner/operator address:	ERIE BLVD W SYRACUSE, NY 13202
Owner/operator country:	US
Owner/operator telephone:	Not reported
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator

NATIONAL GRID MH46 W TUPPER ST BUFFALO (Continued) **1017788025**

Owner/Op start date: 01/01/1900
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
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D008
. Waste name: LEAD

Historical Generators:
Date form received by agency: 06/29/2015
Site name: NIAGARA MOHAWK A NATIONAL GRID CO
Classification: Not a generator, verified

. Waste code: D008
. Waste name: LEAD

Date form received by agency: 04/22/2015
Site name: NIAGARA MOHAWK A NATIONAL GRID CO
Classification: Large Quantity Generator

. Waste code: D008
. Waste name: LEAD

Biennial Reports:

Last Biennial Reporting Year: 2017

Annual Waste Handled:
Waste code: D008
Waste name: LEAD
Amount (Lbs): 5021.5

Violation Status: No violations found

FINDS:

Registry ID: 110064385945

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of

NATIONAL GRID MH46 W TUPPER ST BUFFALO (Continued) **1017788025**

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.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1017788025
Registry ID: 110064385945
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110064385945

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57 NE 1/8-1/4 0.190 mi. 1004 ft. **DEPT OF COMMUNITY DEVELOPMENT** **RCRA NonGen / NLR** **1000393221**
9 CARLTON ST **FINDS** **NYD980526750**
BUFFALO, NY 14203 **ECHO**

Relative: Higher
Actual: 647 ft.

RCRA NonGen / NLR:
Date form received by agency: 01/01/2007
Facility name: DEPT OF COMMUNITY DEVELOPMENT
Facility address: 9 CARLTON ST
BUFFALO, NY 14203-1107
EPA ID: NYD980526750
Mailing address: CITY HALL
BUFFALO, NY 14202
Contact: Not reported
Contact address: CITY HALL
BUFFALO, NY 14202
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: Not reported
Owner/operator address: NOT REQUIRED
NOT REQUIRED, WY 99999
Owner/operator country: US
Owner/operator telephone: 212-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: Not reported
Owner/operator address: NOT REQUIRED
NOT REQUIRED, WY 99999
Owner/operator country: US
Owner/operator telephone: 212-555-1212

DEPT OF COMMUNITY DEVELOPMENT (Continued) **1000393221**

Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
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
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 01/01/2006
Site name: DEPT OF COMMUNITY DEVELOPMENT
Classification: Not a generator, verified

Date form received by agency: 07/08/1999
Site name: DEPT OF COMMUNITY DEVELOPMENT
Classification: Not a generator, verified

Date form received by agency: 09/30/1981
Site name: DEPT OF COMMUNITY DEVELOPMENT
Classification: Large Quantity Generator

. Waste code: F007
. Waste name: SPENT CYANIDE PLATING BATH SOLUTIONS FROM ELECTROPLATING OPERATIONS.

. Waste code: F008
. Waste name: PLATING BATH RESIDUES FROM THE BOTTOM OF PLATING BATHS FROM ELECTROPLATING OPERATIONS IN WHICH CYANIDES ARE USED IN THE PROCESS.

. Waste code: F009
. Waste name: SPENT STRIPPING AND CLEANING BATH SOLUTIONS FROM ELECTROPLATING OPERATIONS IN WHICH CYANIDES ARE USED IN THE PROCESS.

. Waste code: P030
. Waste name: CYANIDES (SOLUBLE CYANIDE SALTS), NOT OTHERWISE SPECIFIED

Violation Status: No violations found

FINDS:

Registry ID: 110004386904

DEPT OF COMMUNITY DEVELOPMENT (Continued) **1000393221**

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.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1000393221
Registry ID: 110004386904
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110004386904

L58 **SCHMIDT'S AUTOBODY AND GLASS INC.** **RCRA NonGen / NLR** **1000299503**
South **555 PEARL ST** **US AIRS** **NYD982279259**
1/8-1/4 **BUFFALO, NY 14202** **FINDS**
0.191 mi. **ECHO**
1006 ft. **Site 2 of 5 in cluster L** **NY MANIFEST**

Relative:
Lower

Actual:
627 ft.

RCRA NonGen / NLR:
Date form received by agency: 01/01/2007
Facility name: SCHMIDTS AUTO BODY & GLASS INC
Facility address: 555 PEARL ST
BUFFALO, NY 14202
EPA ID: NYD982279259
Mailing address: PEARL ST
BUFFALO, NY 14202
Contact: Not reported
Contact address: PEARL ST
BUFFALO, NY 14202
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:
Owner/operator name: SCHMIDTS AUTO BODY & GLASS INC
Owner/operator address: NOT REQUIRED
NOT REQUIRED, WY 99999
Owner/operator country: US
Owner/operator telephone: 212-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: SCHMIDTS AUTO BODY & GLASS INC

SCHMIDT'S AUTOBODY AND GLASS INC. (Continued) **1000299503**

Owner/operator address: NOT REQUIRED
NOT REQUIRED, WY 99999
Owner/operator country: US
Owner/operator telephone: 212-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
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
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 01/01/2006
Site name: SCHMIDTS AUTO BODY & GLASS INC
Classification: Not a generator, verified

Date form received by agency: 04/25/1995
Site name: SCHMIDTS AUTO BODY & GLASS INC
Classification: Not a generator, verified

. Waste code: NONE
. Waste name: None

Date form received by agency: 10/22/1987
Site name: SCHMIDTS AUTO BODY & GLASS INC
Classification: Large Quantity Generator

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

SCHMIDT'S AUTOBODY AND GLASS INC. (Continued) **1000299503**

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Facility Has Received Notices of Violations:
Regulation violated: Not reported
Area of violation: Listing - General
Date violation determined: 06/04/2008
Date achieved compliance: 06/16/2008
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 06/11/2008
Enf. disposition status: Action Satisfied (Case Closed)
Enf. disp. status date: 06/26/2008
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 06/04/2008
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Listing - General
Date achieved compliance: 06/16/2008
Evaluation lead agency: State

US AIRS MINOR:
Envid: 1000299503
Region Code: 02
Programmatic ID: AIR 020000003602990098
Facility Registry ID: 110004419530
D and B Number: Not reported
Primary SIC Code: 3711
NAICS Code: 999999
Default Air Classification Code: MIN
Facility Type of Ownership Code: POF
Air CMS Category Code: Not reported
HPV Status: Not reported

US AIRS MINOR:
Envid: 1000299503
Region Code: 02
Programmatic ID: AIR 020000003602990098
Facility Registry ID: 110004419530
D and B Number: Not reported
Primary SIC Code: 3711
NAICS Code: 999999
Default Air Classification Code: MIN
Facility Type of Ownership Code: POF
Air CMS Category Code: Not reported
HPV Status: Not reported

SCHMIDT'S AUTOBODY AND GLASS INC. (Continued) **1000299503**

FINDS:

Registry ID: 110004419530

Environmental Interest/Information System

AFS (Aerometric Information Retrieval System (AIRS) Facility Subsystem) replaces the former Compliance Data System (CDS), the National Emission Data System (NEDS), and the Storage and Retrieval of Aerometric Data (SAROAD). AIRS is the national repository for information concerning airborne pollution in the United States. AFS is used to track emissions and compliance data from industrial plants. AFS data are utilized by states to prepare State Implementation Plans to comply with regulatory programs and by EPA as an input for the estimation of total national emissions. AFS is undergoing a major redesign to support facility operating permits required under Title V of the Clean Air Act.

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.

AIR MINOR

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:	1000299503
Registry ID:	110004419530
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110004419530

NY MANIFEST:

Country:	USA
EPA ID:	NYD982279259
Facility Status:	Not reported
Location Address 1:	555 PEARL STREET
Code:	BP
Location Address 2:	Not reported
Total Tanks:	Not reported
Location City:	BUFFALO
Location State:	NY
Location Zip:	14202
Location Zip 4:	Not reported

NY MANIFEST:

EPAID:	NYD982279259
Mailing Name:	SCHMIDTS AUTO BODY & GLASS
Mailing Contact:	SCHMIDTS AUTO BODY & GLASS
Mailing Address 1:	555 PEARL STREET
Mailing Address 2:	Not reported
Mailing City:	BUFFALO
Mailing State:	NY

SCHMIDT'S AUTOBODY AND GLASS INC. (Continued) **1000299503**

Mailing Zip:	14202
Mailing Zip 4:	Not reported
Mailing Country:	USA
Mailing Phone:	7168551000

NY MANIFEST:

Document ID:	NYC3979697
Manifest Status:	C
seq:	Not reported
Year:	1996
Trans1 State ID:	NYMJ1781
Trans2 State ID:	Not reported
Generator Ship Date:	01/18/1996
Trans1 Recv Date:	01/18/1996
Trans2 Recv Date:	/ /
TSD Site Recv Date:	01/19/1996
Part A Recv Date:	/ /
Part B Recv Date:	02/01/1996
Generator EPA ID:	NYD982279259
Trans1 EPA ID:	ILD984908202
Trans2 EPA ID:	Not reported
TSDF ID 1:	NYD981556541
TSDF ID 2:	Not reported
Manifest Tracking Number:	Not reported
Import Indicator:	Not reported
Export Indicator:	Not reported
Discr Quantity Indicator:	Not reported
Discr Type Indicator:	Not reported
Discr Residue Indicator:	Not reported
Discr Partial Reject Indicator:	Not reported
Discr Full Reject Indicator:	Not reported
Manifest Ref Number:	Not reported
Alt Facility RCRA ID:	Not reported
Alt Facility Sign Date:	Not reported
MGMT Method Type Code:	Not reported
Waste Code:	F005 - UNKNOWN
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Quantity:	00050
Units:	P - Pounds
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	100
Waste Code:	F005 - UNKNOWN
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Quantity:	00150
Units:	P - Pounds
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	B Incineration, heat recovery, burning.

SCHMIDT'S AUTOBODY AND GLASS INC. (Continued) **1000299503**

Specific Gravity: 100

Click this hyperlink while viewing on your computer to access
90 additional NY_MANIFEST: record(s) in the EDR Site Report.

59
ENE
1/8-1/4
0.192 mi.
1015 ft.

WESTINGHOUSE ELECTRIC CORP
700 ELICOTT SQ BLDG
BUFFALO, NY 14203

RCRA NonGen / NLR **1000413068**
FINDS **NYD030230577**
ECHO
NY MANIFEST

Relative:
Higher

Actual:
641 ft.

RCRA NonGen / NLR:

Date form received by agency:	01/01/2007
Facility name:	WESTINGHOUSE ELECTRIC CORP
Facility address:	700 ELICOTT SQ BLDG BUFFALO, NY 14203
EPA ID:	NYD030230577
Mailing address:	ELICOTT SQ BLDG BUFFALO, NY 14203
Contact:	Not reported
Contact address:	ELICOTT SQ BLDG BUFFALO, NY 14203
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:	Not reported
Owner/operator address:	NOT REQUIRED NOT REQUIRED, WY 99999
Owner/operator country:	US
Owner/operator telephone:	212-555-1212
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	Not reported
Owner/operator address:	NOT REQUIRED NOT REQUIRED, WY 99999
Owner/operator country:	US
Owner/operator telephone:	212-555-1212
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

WESTINGHOUSE ELECTRIC CORP (Continued) **1000413068**

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
Site name: WESTINGHOUSE ELECTRIC CORP
Classification: Not a generator, verified

Date form received by agency: 07/08/1999
Site name: WESTINGHOUSE ELECTRIC CORP
Classification: Not a generator, verified

Date form received by agency: 03/31/1981
Site name: WESTINGHOUSE ELECTRIC CORP
Classification: Large Quantity Generator

. Waste code: D000
. Waste name: Not Defined

. Waste code: F001
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLORETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005

WESTINGHOUSE ELECTRIC CORP (Continued) **1000413068**

. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F017
. Waste name: Not Defined

. Waste code: F018
. Waste name: Not Defined

. Waste code: K069
. Waste name: EMISSION CONTROL DUST/SLUDGE FROM SECONDARY LEAD SMELTING.

Violation Status: No violations found

FINDS:

Registry ID: 110004352192

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.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1000413068
Registry ID: 110004352192
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110004352192

NY MANIFEST:
Country: USA
EPA ID: NYD030230577
Facility Status: Not reported
Location Address 1: 700 ELLICOTT SQUARE BUILDING
Code: BP
Location Address 2: Not reported
Total Tanks: Not reported
Location City: BUFFALO
Location State: NY
Location Zip: 14203
Location Zip 4: Not reported

NY MANIFEST:
EPAID: NYD030230577
Mailing Name: WESTINGHOUSE ELECTRIC CORPORATION
Mailing Contact: WESTINGHOUSE ELECTRIC CORPORATION

WESTINGHOUSE ELECTRIC CORP (Continued) **1000413068**

Mailing Address 1:	ERING SERVICE. 700 ELLICOTT
Mailing Address 2:	Not reported
Mailing City:	SQUARE BLDG.-BUFFALO
Mailing State:	NY
Mailing Zip:	14203
Mailing Zip 4:	Not reported
Mailing Country:	USA
Mailing Phone:	7168474741

NY MANIFEST:

Document ID:	NYA5673825
Manifest Status:	C
seq:	Not reported
Year:	1988
Trans1 State ID:	471
Trans2 State ID:	Not reported
Generator Ship Date:	01/27/1988
Trans1 Recv Date:	01/27/1988
Trans2 Recv Date:	/ /
TSD Site Recv Date:	02/05/1988
Part A Recv Date:	02/02/1988
Part B Recv Date:	02/17/1988
Generator EPA ID:	NYD030230577
Trans1 EPA ID:	MND980791321
Trans2 EPA ID:	Not reported
TSDF ID 1:	KSD980964993
TSDF ID 2:	Not reported
Manifest Tracking Number:	Not reported
Import Indicator:	Not reported
Export Indicator:	Not reported
Discr Quantity Indicator:	Not reported
Discr Type Indicator:	Not reported
Discr Residue Indicator:	Not reported
Discr Partial Reject Indicator:	Not reported
Discr Full Reject Indicator:	Not reported
Manifest Ref Number:	Not reported
Alt Facility RCRA ID:	Not reported
Alt Facility Sign Date:	Not reported
MGMT Method Type Code:	Not reported
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Quantity:	00750
Units:	P - Pounds
Number of Containers:	002
Container Type:	DM - Metal drums, barrels
Handling Method:	L Landfill.
Specific Gravity:	100

Click this hyperlink while viewing on your computer to access
1 additional NY_MANIFEST: record(s) in the EDR Site Report.

M60
East
1/8-1/4
0.192 mi.
1016 ft.

GREYHOUND
ELLICOTT & OAK STREETS
BUFFALO, NY

Site 2 of 2 in cluster M

NY LTANKS **S105054099**
N/A

Relative:
Higher

Actual:
637 ft.

LTANKS:

Facility ID:	8912297
Site ID:	279141
Closed Date:	1990-03-29
Spill Number:	8912297
Spill Date:	1990-03-27
Spill Cause:	Tank Overfill
Spill Source:	Commercial Vehicle
Spill Class:	Not reported
Cleanup Ceased:	1990-03-29
SWIS:	1502
Investigator:	FIX
Referred To:	Not reported
Reported to Dept:	1990-03-27
CID:	Not reported
Water Affected:	Not reported
Spill Notifier:	Citizen
Last Inspection:	1990-03-29
Recommended Penalty:	False
Meets Standard:	True
UST Involvement:	False
Remediation Phase:	0
Date Entered In Computer:	1990-03-27
Spill Record Last Update:	1990-04-02
Spiller Name:	Not reported
Spiller Company:	GREYHOUND
Spiller Address:	181 ELLICOTT STREET
Spiller County:	001
Spiller Contact:	Not reported
Spiller Phone:	Not reported
Spiller Extention:	Not reported
DEC Region:	9
DER Facility ID:	226663
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was CAF 03/27/90: CAF SITE VISIT-FOUND SPILL AND INSTRUCTED SUPERVISOR HOW CLEANUP ANDDISPOSAL OF MATERIALS SHOULD BE HANDELED. 03/29/90: CAF SITE VISIT-CLEANUP COMPLETED,NO FURTHER ACTION PLANNED. "
Remarks:	"BUS LEAKED DIESEL WHEN PULLING OUT FROM STATION,PROBABLY OVERFILLED, CITIZEN MAY BE A STRIKING EMPLOYEE."

All Materials:

Site ID:	279141
Operable Unit ID:	937993
Operable Unit:	01
Material ID:	441767
Material Code:	0008
Material Name:	diesel
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	10.00
Units:	G
Recovered:	10.00
Oxygenate:	Not reported

N61 **NIAGARA MOHAWK-A NATIONAL GRID CO** **RCRA NonGen / NLR** **1016169644**
SW **78 W TUPPER** **FINDS** **NYP000969824**
1/8-1/4 **BUFFALO, NY 14202** **ECHO**
0.195 mi. **NY MANIFEST**
1030 ft. **Site 3 of 3 in cluster N**

Relative: Lower

Actual: 622 ft.

RCRA NonGen / NLR:

Date form received by agency:	05/28/2014
Facility name:	NIAGARA MOHAWK-A NATIONAL GRID CO
Facility address:	78 W TUPPER BUFFALO, NY 14202
EPA ID:	NYP000969824
Mailing address:	ERIE BLVD W SYRACUSE, NY 13202
Contact:	MARGARET M CARD
Contact address:	ERIE BLVD W SYRACUSE, NY 13202
Contact country:	US
Contact telephone:	315-428-6670
Contact email:	Not reported
EPA Region:	02
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

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

. Waste code: D008
. Waste name: LEAD

Historical Generators:

Date form received by agency:	08/20/2013
Site name:	NIAGARA MOHAWK, A NATIONAL GRID CO
Classification:	Large Quantity Generator

. Waste code: D008
. Waste name: LEAD

Violation Status: No violations found

FINDS:

Registry ID: 110055932399

Environmental Interest/Information System

NIAGARA MOHAWK-A NATIONAL GRID CO (Continued) **1016169644**

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.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:	1016169644
Registry ID:	110055932399
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110055932399

NY MANIFEST:

Country:	USA
EPA ID:	NYP000969824
Facility Status:	Not reported
Location Address 1:	W TUPPER
Code:	BP
Location Address 2:	MH 78
Total Tanks:	Not reported
Location City:	BUFFALO
Location State:	NY
Location Zip:	14202
Location Zip 4:	Not reported

NY MANIFEST:

EPAID:	NYP000969824
Mailing Name:	NIAGARA MOHAWK POWER CORP
Mailing Contact:	NIAGARA MOHAWK POWER CORP
Mailing Address 1:	144 KENSINGTON AVE
Mailing Address 2:	Not reported
Mailing City:	BUFFALO
Mailing State:	NY
Mailing Zip:	14214
Mailing Zip 4:	Not reported
Mailing Country:	USA
Mailing Phone:	7168317209

NY MANIFEST:

Document ID:	Not reported
Manifest Status:	Not reported
seq:	Not reported
Year:	2013
Trans1 State ID:	NYD986980753
Trans2 State ID:	Not reported
Generator Ship Date:	08/27/2013
Trans1 Recv Date:	08/27/2013
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	08/27/2013
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported
Generator EPA ID:	NYP000969824

NIAGARA MOHAWK-A NATIONAL GRID CO (Continued) **1016169644**

Trans1 EPA ID:	Not reported
Trans2 EPA ID:	Not reported
TSDF ID 1:	NYD049836679
TSDF ID 2:	Not reported
Manifest Tracking Number:	001055874JJK
Import Indicator:	N
Export Indicator:	N
Discr Quantity Indicator:	N
Discr Type Indicator:	N
Discr Residue Indicator:	N
Discr Partial Reject Indicator:	N
Discr Full Reject Indicator:	N
Manifest Ref Number:	Not reported
Alt Facility RCRA ID:	Not reported
Alt Facility Sign Date:	Not reported
MGMT Method Type Code:	H135
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Quantity:	165
Units:	G - Gallons (liquids only)* (8.3 pounds)
Number of Containers:	3
Container Type:	DM - Metal drums, barrels
Handling Method:	T Chemical, physical, or biological treatment.
Specific Gravity:	1
Waste Code:	D008
Waste Code 1_2:	Not reported
Waste Code 1_3:	Not reported
Waste Code 1_4:	Not reported
Waste Code 1_5:	Not reported
Waste Code 1_6:	Not reported

Click this hyperlink while viewing on your computer to access additional NY_MANIFEST: detail in the EDR Site Report.

O62 **120 W. TUPPER STREET, INC.** **NY UST** **U003317252**
West **325 SOUTH ELMWOOD AVE** **N/A**
1/8-1/4 **BUFFALO, NY 14201**
0.197 mi.
1040 ft. **Site 1 of 3 in cluster O**

Relative: UST:
Lower

Id/Status:	9-224235 / Unregulated/Closed
Program Type:	PBS
Region:	STATE
DEC Region:	9
Expiration Date:	N/A
UTM X:	183513.27413
UTM Y:	4757653.04979
Site Type:	Other

Actual: **624 ft.**

Affiliation Records:

Site Id:	53230
Affiliation Type:	Mail Contact

120 W. TUPPER STREET, INC. (Continued) **U003317252**

Company Name:	120 W. TUPPER STREET, INC.
Contact Type:	Not reported
Contact Name:	DANIEL J. MERGENHAGEN
Address1:	120 W. TUPPER STREET
Address2:	Not reported
City:	BUFFALO
State:	NY
Zip Code:	14201
Country Code:	001
Phone:	(716) 842-1500
EMail:	DMERGENHAGEN@AOL.COM
Fax Number:	Not reported
Modified By:	LDGOMEZ
Date Last Modified:	2009-09-17

Site Id:	53230
Affiliation Type:	Facility Operator
Company Name:	120 W. TUPPER STREET, INC.
Contact Type:	Not reported
Contact Name:	120 W. TUPPER STREET, INC.
Address1:	Not reported
Address2:	Not reported
City:	Not reported
State:	NY
Zip Code:	Not reported
Country Code:	001
Phone:	(716) 842-1500
EMail:	Not reported
Fax Number:	Not reported
Modified By:	THKNIZEK
Date Last Modified:	2008-07-30

Site Id:	53230
Affiliation Type:	Emergency Contact
Company Name:	120 W. TUPPER STREET, INC.
Contact Type:	Not reported
Contact Name:	DANIEL J. MERGENHAGEN
Address1:	Not reported
Address2:	Not reported
City:	Not reported
State:	NN
Zip Code:	Not reported
Country Code:	999
Phone:	(716) 992-9229
EMail:	Not reported
Fax Number:	Not reported
Modified By:	THKNIZEK
Date Last Modified:	2008-07-30

Site Id:	53230
Affiliation Type:	Facility Owner
Company Name:	120 W. TUPPER STREET, INC.
Contact Type:	Not reported
Contact Name:	JEFFREY DAVIS
Address1:	120 WEST TUPPER STREET
Address2:	Not reported
City:	BUFFALO

120 W. TUPPER STREET, INC. (Continued) **U003317252**

State:	NY
Zip Code:	14201
Country Code:	001
Phone:	(716) 842-1500
EMail:	Not reported
Fax Number:	Not reported
Modified By:	LDGOMEZ
Date Last Modified:	2009-09-17

Tank Info:

Tank Number:	1
Tank ID:	177589
Tank Status:	Closed - Removed
Material Name:	Closed - Removed
Capacity Gallons:	6000
Install Date:	12/01/1993
Date Tank Closed:	09/15/2010
Registered:	True
Tank Location:	Underground
Tank Type:	Steel/carbon steel
Material Code:	0009
Common Name of Substance:	Gasoline
Tightness Test Method:	NN
Date Test:	Not reported
Next Test Date:	Not reported
Pipe Model:	Not reported
Modified By:	aeskalsk
Last Modified:	04/14/2017

Equipment Records:

K01 - Spill Prevention - Catch Basin
L09 - Piping Leak Detection - Exempt Suction Piping
D06 - Pipe Type - Fiberglass Reinforced Plastic (FRP)
B02 - Tank External Protection - Original Sacrificial Anode
J02 - Dispenser - Suction Dispenser
F04 - Pipe External Protection - Fiberglass
C03 - Pipe Location - Aboveground/Underground Combination
G04 - Tank Secondary Containment - Double-Walled (Underground)
H01 - Tank Leak Detection - Interstitial - Electronic Monitoring
I01 - Overfill - Float Vent Valve
A00 - Tank Internal Protection - None
B01 - Tank External Protection - Painted/Asphalt Coating
H05 - Tank Leak Detection - In-Tank System (ATG)

Tank Number:	1-A
Tank ID:	177590
Tank Status:	Closed - Removed
Material Name:	Closed - Removed
Capacity Gallons:	4000
Install Date:	Not reported
Date Tank Closed:	12/01/1993
Registered:	True
Tank Location:	Underground
Tank Type:	Steel/carbon steel

120 W. TUPPER STREET, INC. (Continued) **U003317252**

Material Code: 0009
Common Name of Substance: Gasoline

Tightness Test Method: 03
Date Test: 09/01/1992
Next Test Date: Not reported
Pipe Model: Not reported
Modified By: TRANSLAT
Last Modified: 04/14/2017

Equipment Records:

H00 - Tank Leak Detection - None
I00 - Overfill - None
F00 - Pipe External Protection - None
B00 - Tank External Protection - None
C00 - Pipe Location - No Piping
G00 - Tank Secondary Containment - None
J02 - Dispenser - Suction Dispenser
A00 - Tank Internal Protection - None
D01 - Pipe Type - Steel/Carbon Steel/Iron

Tank Number: 1-B
Tank ID: 177591
Tank Status: Closed - Removed
Material Name: Closed - Removed
Capacity Gallons: 6000
Install Date: 12/01/1993
Date Tank Closed: 12/01/1993
Registered: True
Tank Location: Underground
Tank Type: Steel/carbon steel
Material Code: 0009
Common Name of Substance: Gasoline

Tightness Test Method: NN
Date Test: Not reported
Next Test Date: Not reported
Pipe Model: Not reported
Modified By: TRANSLAT
Last Modified: 04/14/2017

Equipment Records:

K01 - Spill Prevention - Catch Basin
D06 - Pipe Type - Fiberglass Reinforced Plastic (FRP)
B02 - Tank External Protection - Original Sacrificial Anode
J02 - Dispenser - Suction Dispenser
C02 - Pipe Location - Underground/On-ground
F04 - Pipe External Protection - Fiberglass
G04 - Tank Secondary Containment - Double-Walled (Underground)
H01 - Tank Leak Detection - Interstitial - Electronic Monitoring
I01 - Overfill - Float Vent Valve
A00 - Tank Internal Protection - None
B01 - Tank External Protection - Painted/Asphalt Coating
H05 - Tank Leak Detection - In-Tank System (ATG)

Tank Number: 2

120 W. TUPPER STREET, INC. (Continued) **U003317252**

Tank ID:	164631
Tank Status:	Closed - Removed
Material Name:	Closed - Removed
Capacity Gallons:	2000
Install Date:	Not reported
Date Tank Closed:	12/01/1993
Registered:	True
Tank Location:	Underground
Tank Type:	Steel/carbon steel
Material Code:	0009
Common Name of Substance:	Gasoline
Tightness Test Method:	03
Date Test:	09/01/1992
Next Test Date:	Not reported
Pipe Model:	Not reported
Modified By:	TRANSLAT
Last Modified:	04/14/2017

Equipment Records:

I00 - Overfill - None
B00 - Tank External Protection - None
C00 - Pipe Location - No Piping
F00 - Pipe External Protection - None
J02 - Dispenser - Suction Dispenser
G00 - Tank Secondary Containment - None
A00 - Tank Internal Protection - None
D01 - Pipe Type - Steel/Carbon Steel/Iron
H99 - Tank Leak Detection - Other

O63 **JOSEPH DAVIS INC** **RCRA NonGen / NLR** **1000262210**
West **325 S ELMWOOD AVE** **FINDS** **NYD982793838**
1/8-1/4 **BUFFALO, NY 14201** **ECHO**
0.197 mi. **NY MANIFEST**
1040 ft. **Site 2 of 3 in cluster O**

Relative: Lower
Actual: 624 ft.

RCRA NonGen / NLR:

Date form received by agency:	01/01/2007
Facility name:	JOSEPH DAVIS INC
Facility address:	325 S ELMWOOD AVE BUFFALO, NY 14201
EPA ID:	NYD982793838
Mailing address:	W TUPPER ST BUFFALO, NY 14201
Contact:	Not reported
Contact address:	W TUPPER ST BUFFALO, NY 14201
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:	ESTATE OF MARSHALL E DAVIS
Owner/operator address:	NOT REQUIRED NOT REQUIRED, WY 99999

JOSEPH DAVIS INC (Continued) **1000262210**

Owner/operator country: US
Owner/operator telephone: 212-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: ESTATE OF MARSHALL E DAVIS
Owner/operator address: NOT REQUIRED
NOT REQUIRED, WY 99999
Owner/operator country: US
Owner/operator telephone: 212-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
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
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 01/01/2006
Site name: JOSEPH DAVIS INC
Classification: Not a generator, verified

Date form received by agency: 04/13/1995
Site name: JOSEPH DAVIS INC
Classification: Unverified

. Waste code: NONE
. Waste name: None

Date form received by agency: 08/10/1989
Site name: JOSEPH DAVIS INC
Classification: Large Quantity Generator

JOSEPH DAVIS INC (Continued) **1000262210**

. Waste code: F001
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLORETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Violation Status: No violations found

FINDS:

Registry ID: 110004434363

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.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:	1000262210
Registry ID:	110004434363
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110004434363

NY MANIFEST:

Country:	USA
EPA ID:	NYD982793838
Facility Status:	Not reported
Location Address 1:	325 SOUTH ELMWOOD
Code:	BP
Location Address 2:	Not reported
Total Tanks:	Not reported
Location City:	BUFFALO
Location State:	NY
Location Zip:	14201
Location Zip 4:	Not reported

NY MANIFEST:

EPAID:	NYD982793838
Mailing Name:	JOSEPH DAVIS INC
Mailing Contact:	JOSEPH DAVIS INC
Mailing Address 1:	325 SOUTH ELMWOOD
Mailing Address 2:	Not reported
Mailing City:	BUFFALO
Mailing State:	NY
Mailing Zip:	14201
Mailing Zip 4:	Not reported
Mailing Country:	USA

JOSEPH DAVIS INC (Continued) **1000262210**

Mailing Phone: 7168421500

NY MANIFEST:

Document ID:	MIA1694756
Manifest Status:	K
seq:	Not reported
Year:	1989
Trans1 State ID:	79631Z
Trans2 State ID:	Not reported
Generator Ship Date:	10/04/1989
Trans1 Recv Date:	10/04/1989
Trans2 Recv Date:	/ /
TSD Site Recv Date:	10/05/1989
Part A Recv Date:	11/27/1989
Part B Recv Date:	11/09/1989
Generator EPA ID:	NYD982793838
Trans1 EPA ID:	NYD097644801
Trans2 EPA ID:	Not reported
TSDF ID 1:	MID980615298
TSDF ID 2:	Not reported
Manifest Tracking Number:	Not reported
Import Indicator:	Not reported
Export Indicator:	Not reported
Discr Quantity Indicator:	Not reported
Discr Type Indicator:	Not reported
Discr Residue Indicator:	Not reported
Discr Partial Reject Indicator:	Not reported
Discr Full Reject Indicator:	Not reported
Manifest Ref Number:	Not reported
Alt Facility RCRA ID:	Not reported
Alt Facility Sign Date:	Not reported
MGMT Method Type Code:	Not reported
Waste Code:	F001 - UNKNOWN
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Quantity:	00500
Units:	G - Gallons (liquids only)* (8.3 pounds)
Number of Containers:	001
Container Type:	TP - Tanks, portable
Handling Method:	R Material recovery of more than 75 percent of the total material.
Specific Gravity:	100

Click this hyperlink while viewing on your computer to access
additional NY_MANIFEST: detail in the EDR Site Report.

O64 **JOSEPH DAVIS INC** **NY LTANKS** **S118953773**
West **325 SOUTH ELMWOOD** **N/A**
1/8-1/4 **BUFFALO, NY**
0.197 mi.
1040 ft. **Site 3 of 3 in cluster O**

Relative: LTANKS:
Lower

Actual: Facility ID: 9311171
624 ft. Site ID: 141703
Closed Date: 1996-01-30
Spill Number: 9311171
Spill Date: 1993-12-15
Spill Cause: Tank Failure
Spill Source: Commercial/Industrial
Spill Class: B3
Cleanup Ceased: 1996-01-30
SWIS: 1502
Investigator: COOKE
Referred To: Not reported
Reported to Dept: 1993-12-15
CID: Not reported
Water Affected: Not reported
Spill Notifier: Other
Last Inspection: 1995-01-20
Recommended Penalty: False
Meets Standard: False
UST Involvement: True
Remediation Phase: 0
Date Entered In Computer: 1993-12-15
Spill Record Last Update: 1998-12-17
Spiller Name: DAVID MUSKOPF
Spiller Company: JOSEPH DAVIS, INC.
Spiller Address: 120 WEST TUPPER STREET
Spiller County: 001
Spiller Contact: Not reported
Spiller Phone: Not reported
Spiller Extention: Not reported
DEC Region: 9
DER Facility ID: 120970
DEC Memo: "Prior to Sept, 2004 data translation this spill Lead_DEC Field was JDC 12/15/93: JDC/GARY TULNER, K & T PUMP/SITE - STRONG GASOLINE ODOR EMANATING FROM SAND-LOAM BACKFILL. NO FREE GASOLINE OBSERVED. CONTAMINATED SOILS BEING REMOVED AND STAGED ON PLASTIC. 12/16/93: JDC/DAVE MUSKOPF/TELECON - ADVISED HIM OF REMEDIATION REQUIREMENTS. INSPECTED SITE AND FOUND MORE SOIL CONTAMINATION EXPOSED IN EXCAVATION. 12/17/93: JDC DRAFTED LETTER TO MR. MUSKOPF OUTLINING CLEANUP OPTIONS. 12/21/93: SAC/KATHY MCCARTHY, K & T PUMP/TELECON - THEY WILL BE REMOVING TANK TOMORROW AT JOSEPH DAVIS. 12/27/93: JDC/KATHY MCCARTHY, K & T/TELECON - THEY HAVE BEEN DIRECTED BY R.P. TO DO REMEDIAL WORK. REMEDIAL PLAN SHOULD BE COMPLETED SOMETIME NEXT WEEK. 1/18/94: RECEIVED ANALYSIS FOR GW DATED 11/2/94 AND FOUND SATISFACTORY. NO FURTHER ACTION REQUIRED. SENT CLOSURE LETTER. 4/25/94: JDC/MR. MOSKUPF, RP/TELECON - WILL BE SENDING UPDATE ON CLEANUP STATUS; EXPECTS SOIL WILL BE DISPOSED OF. 5/6/94: SOIL ANALYSIS 4/18/94 INDICATES NON-HAZ, NO UPDATE FROM RP ON CLEANUP. 5/28/94: SENT LETTER REQUESTING DISPOSAL RECEIPTS FOR REMOVED SOILS. CK BK 7/14/94. 7/6/94: JDC INSPECTED SITE AND FOUND SOILS REMOVED. SOIL DISPOSAL RECEIPTS RECEIVED. NEED SOIL ANALYSIS TO CLOSE FILE. CK BK 7/14/94. 7/13/94: JDC SENT LETTER REQUESTING GW REMEDIATION PLAN

JOSEPH DAVIS INC (Continued) **S118953773**

AND/ OR RESAMPLING. RECEIVED SOIL DISPOSAL AND GW ANALYSIS FROM 4K TANK PIT. CK BK 7/29/94. 8/22/94: JDC TELCON W/ MR MUSKOFF, WILL RESAMPLE GW IN EXCAVATION OF 4K TANK WHEN MW IS INSTALLED. 12/9/94: RECIEVED GW ANALYSIS AT 4K TANK BOTTOM SHOWING MINOR LEVELS OF MTBE. WILL REQUEST ONE ADDITIONAL SAMPLE TO CONFIRM. 01/20/95: JDC INSPECTED PROPERTY AND CONFIRMED WELL IN PLACE. WILL CONTACTED RP AND REQUEST ANALYSIS OF GW TO CONFIRM 11/94 ANALYSIS. 01/23/95: JDC CONTACTED MR MUSKOPF AND REQUETED ADDITIONAL ANALYSIS BE COMPLETED. RP AGREED AND WILL BE USING K&T PUMP TO COLLECT SAMPLE. 03/09/95: SENT STATUS LETTER TO RP REQUESTING LAB TEST RESULTS FOR GW ANALYSIS. CK BK 3/30/95. 12/15/95: JDC LEFT MESSAGE FOR MR MUSKOFF TO RETURN MY CALL REGARDING SAMPLING STATUS. 1/30/96: RECIEVED GW ANALYSIS AND FOUND LOW LEVELS OF BTEX. WILL PROCESS FILE AS INACTIVE. NO FURTHER ACTION AT THIS TIME. "

Remarks: "CONTAMINATED SOIL DISCOVERED DURING TANK REMOVAL."

All TTF:

Facility ID:	9311171
Spill Number:	9311171
Spill Tank Test:	1542302
Site ID:	141703
Tank Number:	Not reported
Tank Size:	0
Material:	0009
EPA UST:	Not reported
UST:	Not reported
Cause:	Not reported
Source:	Not reported
Test Method:	00
Test Method 2:	Unknown
Leak Rate:	.00
Gross Fail:	Not reported
Modified By:	Spills
Last Modified Date:	Not reported

All Materials:

Site ID:	141703
Operable Unit ID:	989810
Operable Unit:	01
Material ID:	554033
Material Code:	0009
Material Name:	gasoline
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	.00
Units:	G
Recovered:	.00
Oxygenate:	Not reported

65
NNW
1/8-1/4
0.203 mi.
1070 ft.

ALLENTOWN TRADING COMPANY
553 DELAWARE AVE
BUFFALO, NY 14202

NY LTANKS
NY UST

U003107394
N/A

Relative:
Higher

Actual:
641 ft.

LTANKS:

Facility ID:	8902410
Site ID:	128500
Closed Date:	1989-08-01
Spill Number:	8902410
Spill Date:	1989-06-07
Spill Cause:	Tank Failure
Spill Source:	Gasoline Station or other PBS Facility
Spill Class:	Not reported
Cleanup Ceased:	1989-08-01
SWIS:	1502
Investigator:	ROSS
Referred To:	Not reported
Reported to Dept:	1989-06-08
CID:	Not reported
Water Affected:	Not reported
Spill Notifier:	Other
Last Inspection:	1989-07-11
Recommended Penalty:	False
Meets Standard:	True
UST Involvement:	True
Remediation Phase:	0
Date Entered In Computer:	1989-06-08
Spill Record Last Update:	1989-09-07
Spiller Name:	Not reported
Spiller Company:	THE FIRST ELMWOOD MGT
Spiller Address:	5820 MAIN STREET
Spiller County:	001
Spiller Contact:	Not reported
Spiller Phone:	Not reported
Spiller Extention:	Not reported
DEC Region:	9
DER Facility ID:	110861
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was LQR 06/08/89: LQR AND MS ON SITE W/ SPILLER CONTRACTOR, MW'S CHECKED,FUMES FOUND. 07/11/89: LQR ON SITE W/ BUYER & CONTRACTOR, EXPLORIATORY PITS BEING DUG. 07/11/89: LQR ON SITE W/ BUYER,CONTRACTOR & SELLER,TANK FOUND FURTHER INVESTIGATION NEEDED. 07/13/89: LQR TELCON W/ BUYER,LETTER SENT ON TANK PULL NO FURTHER ACTION NECESSARY. 08/01/89: BUYER RETESTED TANK 08/01/89 INCONCLUSIVE TEST,TO RETEST. 08/09/89: BUYER RETESTED TANK 08/01/89 TESTED TIGHT. "
	Not reported
Remarks:	"FUMES IN NEW PLACED MW'S"

All TTF:

Facility ID:	8902410
Spill Number:	8902410
Spill Tank Test:	1535558
Site ID:	128500
Tank Number:	Not reported
Tank Size:	0
Material:	0009
EPA UST:	Not reported
UST:	Not reported

ALLENTOWN TRADING COMPANY (Continued) **U003107394**

Cause:	Not reported
Source:	Not reported
Test Method:	00
Test Method 2:	Unknown
Leak Rate:	.00
Gross Fail:	Not reported
Modified By:	Spills
Last Modified Date:	Not reported

All Materials:

Site ID:	128500
Operable Unit ID:	928135
Operable Unit:	01
Material ID:	450112
Material Code:	0009
Material Name:	gasoline
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	.00
Units:	G
Recovered:	.00
Oxygenate:	Not reported

Facility ID:	9306552
Site ID:	128501
Closed Date:	2007-11-15
Spill Number:	9306552
Spill Date:	1993-08-28
Spill Cause:	Tank Test Failure
Spill Source:	Gasoline Station or other PBS Facility
Spill Class:	B3
Cleanup Ceased:	Not reported
SWIS:	1502
Investigator:	RMCROSSE
Referred To:	Not reported
Reported to Dept:	1993-08-28
CID:	Not reported
Water Affected:	Not reported
Spill Notifier:	Tank Tester
Last Inspection:	2007-09-01
Recommended Penalty:	False
Meets Standard:	False
UST Involvement:	True
Remediation Phase:	0
Date Entered In Computer:	1993-08-31
Spill Record Last Update:	2007-11-15
Spiller Name:	PAUL MORETTA/ JOE HANNON
Spiller Company:	ELLICOTT DEVELOPMENT CO.
Spiller Address:	210 ELLICOTT SQUARE BLDG
Spiller County:	001
Spiller Contact:	JOSEPH HANNON
Spiller Phone:	(716) 854-0600
Spiller Extention:	Not reported
DEC Region:	9
DER Facility ID:	110861
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was

ALLENTOWN TRADING COMPANY (Continued) **U003107394**

RMC 09/03/93: RMC/LOUIS PUDDU/PHONE - PLAN TO RETEST AND/OR SELL. TANKS ARE ALL PUMPED OUT. RESPONSE LETTER DUE BY 10/30/93. 11/23/93: RMC/REMINDER LETTER SENT, RESPONSE DUE 12/15/93. 11/24/93: RMC/SECOND REMINDER LETTER SENT, RESPONSE DUE 1/4/94. 01/12/94: SAC/AL DIPALO/PHONE HE HAS CONTRACT TO PULL TANK BY 2/15/94. 02/22/94: RMC/SITE WORK NO YET BEGUN. 02/25/94: MF/SITE TANKS REMOVED,CONTAMINATION FOUND, REMEDIATION LETTER, RESPONSE DUE 04/29/94. 05/17/94: RMC/LETTER RESPONSE DUE 6/7/94. 05/24/94: RMC/FILE SAC TALKED WITH ANDY K. OF BUFFALO DRILLING WHO IS WORKING ON PROJECT, WORK DUE 6/30/94. 05/27/94: RMC/LETTER SAMPLE RESULTS DUE 7/15/94. 06/06/94: RMC/ANDY K. BUFFALO DRILLING, WELLS WII BE TESTED, RESULTS DUE 7/30/94. 07/18/94: RMC/ANDY K. BUFFALO DRILLING/PHONE WELLS WILL BE TESTED,IF EXCAVATION IS DONE SPILLS WILL BE NOTIFIED FOR INSPECTION, RESULTS DUE 8/30/94. 08/11/94: RMC/ANDY K. BUFFALO DRILLING/MEETING PRELIMINARY WELL RESULTS HIGH, ADVISED WILL REQUIRE WORK, WORK PLAN DUE 9/30/94. 10/12/94: RMC/ANDY K. BUFFALO DRILLING/PHONE WORK TO BEGIN WEEK OF OCTOBER 17, INSPECT 10/30/94. 12/12/94: RMC/ANDY K. BUFFALO DRILLING/PHONE WORK BEGUN BUT NOT YET COMPLETED, SAMPLING 1/1, 4/1, 7/1, 10/1 AS BUILTS DUE 1/30/95. 02/10/95: RMC/ANDY K. BUFFALO DRILLING/PHONE WORK BEGUN BUT NOT YET COMPLETED, SAMPLING 1/1, 4/1, 7/1, 10/1 AS BUILTS DUE 1/30/95REVISED TO 2/28/95. 03/22/95: RMC/ANDY K. BUFFALO DRILLING/PHONE PHONE WORK COMPLETED, DOCUMENTATION TO TO FOLLOW ASAP, DUE 3/30/95. 03/27/95: RMC/RECEIVED AS BUILTS AND QUATERLY ANALYSIS, NEXT ROUND DUE 6/30/95. 05/30/95: RMC/ANDY K. BUFFALO DRILLING/PHONE - RMC ADVISED THAT MW SAMPLE RESULTS INDICATE THAT LEVELS ARE INCREASING. TO MEET WITH OWNERS OF PROPERTY 6/2/95 AT DEC OFFICE. 05/31/95: RMC/RECEIVED QUATERLY ANALYSIS, EXCEEDANCES, NEXT ROUND DUE 8/30/95. 06/02/95: RMC/SAC/PUDDU/CARL ELLICOTT DEVELOPEMENT/BUFFALO DRILLING/MEETING WENT OVER SITE HISTORY AND OPTIONS,RP TO SUBMIT LONG RANGE WORK PLAN FOR APPROVAL, DUE 6/30/95. 07/11/95: RMC/RECEIVED WORK PLAN, REVIEWED AND PROVIDED CHANGE REQUESTS TO BUFFALO DRILLING, REVISION DUE 8/30/95. 07/18/95: RMC/RECEIVED REVISED WORK PLAN, REVIEWED AND ACCEPTED, LETTER, SCHEDULE DUE 8/21/95. 08/17/95: RMC/RECEIVED SCHEDULE, OK, REINSPECT 9/15/95. 09/20/95: RMC/SITE SYSTEM NOT YET COMPLETE, REINSPECT 10/30/95. 11/06/95 RMC/ANDY K,BUFFALO DRILLING/PHONE SYSTEM UP AND RUNNING, QUATERLY SAMPLING TO BEGIN, ROUND DUE 12/30/95 01/19/96 RMC/FILE RECEIVED REPORT, OK, MAJOR EXCEEDANCES IN MWS PERSIST, NEXT ROUND DUE 4/30/96 05/10/96 RMC/FILE RECEIVED REPORT, MAJOR EXCEEDANCES CONTINUE, SYSTEM RUNNING, NEXT ROUND DUE 8/30/96 06/19/96 RMC/CARL PALADINO,852-8227/PHONE MR PALADINO WISHED TO EXLORE A VOL. CLEANUP OR REBCA AS HE CAN NOT GET FINANCING FOR DEVELOPEMENT COSTS OF SITE RMC TO CONFIR W/RNL AND PJB 07/3/96 RMC/PJB/ABBY SNYDER/CARL PALADINO/RICHARD SCHUECKLER/MEETING DISCUSSED CLEAN UP OBJECTIVES,CLOSURE AND LENDING INSTITUTION REQUIRMENTS, OPTIONS PRESENTED TO RP FOR REVIEW WITH LENDER, UPDATE 8/30/9 09/10/96 RMC/FILE RECEIVED SAMPLING REPORT, NO REAL IMPROVEMENT SEEN, NEXT ROUND DUE 12/30/96REVISED TO 1/31/97 03/12/97 RMC/FILE RECEIVED REPORT, EXCEEDANCE NOT DECREASING AS EXPECTED, RMC TO CAREFULLY REVIEW NEXT ROUND AS CURRENT TREATMENT MAY NOT BE ADEQATE, ROUND DUE 5/1/97 06/03/97 RMC/FILE LEFT MESSAGE FOR KUCSERIK TO CALL AS SAMPLE RESULTS OVERDUE, CALL DUE 6/10/97 06/06/97 RMC/ANDY K/PHONE WELLS TO BE SAMPLED TODAY, RESULTS DUE 7/15/97 08/18/97 RMC/FILE LETTER ON SAMPLING, RESPONSE DUE 9/12/97 08/25/97 RMC/FILE RECEIVED DISCHARGE SAMPLING, LETTER MW SAMPLING, REPORT DUE 10/30/97 09/02/97 RMC/FILE RECEIVE 6/97 AND7/97 MW SAMPLE RESULTS, VERY HIGH EXCEEDANCES, NEXT ROUND DUE 12/30/97 01/28/98 RMC/FILE RECEIVED

ALLENTOWN TRADING COMPANY (Continued) **U003107394**

REPORT, SIGNIFICANT EXCVEEDANCES CONTINUE, NEXT REPORT DUE 4/30/98 06/18/98 RMC/ANDY KUCSERIK/PHONE RECEIVED MW RESULTS HIGH EXCEEDANCES CONTINUE, RMC ADVISED THAT IF RESULTS DO NOT IMPROVE IN THE NEXT ROUND WE WILL REQUEST MORE AGRESSIVE REMEDIATION, NEXT ROUND DUE 10/30/98 11/12/98 RMC/FILE RECEIVED LETTER FROM BUFFALO DRILLING, RP PLANS FUTHER SITE INVESTIGATION, REPORT DUE 1/99 03/15/99 RMC/FILE LEFT MESSAGE FOR ANDY K. THAT REPORT OVERDUE, DUE 4/15/99 12/2/99 RMC/FILE NO RESPONSE FROM RECENT CALLS TO RP, LETTER, RESPONSE DUE 12/21/99 12/21/00 RMC/FILE RECVEIVED LETTER, LIMITED AMOUNT OF WORK WILL BE COMPLETED AND SUBMITTED FOR REVIEW BY 1/30/00 1/24/00 RMC/FILE RECEIVED FAX FORM BUFFALO DRILLING EXPOSURE ASSESSMENT IS BEING LOOKED AT AS A POTENTIAL, DUE 3/30/00 04/05/00 RMC/FILE LEFT MESSAGE FOR ANDY K. BUFFALO DRILLING REQUESTING REPORT. DUE 4/15 04/7/00 RMC/ANDY K./SITE NO WORK HAS BEEN AUTHORIZED BY RP, DISCUSSED POTENTIAL EXPOSURE ASSESSMENT, LEVELS ARE TOO HIGH, LETTER RESPONSE DUE 5/1 04/24/00 RMC/FILE RECEIVED LETTER FROM ELLICOTT DEVELOPMENT, WORKING ON ALTERNATIVE REMEDIATION PLAN, DUE 6/10 07/10/00 RMC/FILE NO PLAN SUBMITTED, LETTER, PLAN DUE 7/30 08/2/00 RMC/FILE RECEIVED LETTER FROM BUFFALO DRILLING, PLAN TO INSTALL ORC, REPORT DUE 10/30/00 12/01/00 RMC/ANDY K./PHONE RMC REQUESTED REPORT, NO WORK WAS DONE DUE TO EQUIPMENT BREAKDOWN, PROMISED WORK WILL START IN 30 DAYS, REPORT DUE 1/15/00 02/13/01 RMC/FILE NO WORK YET, NO REPORT, LEFT MESSAGE FOR ANDY K. TO CALL, DUE 2/20/01 3/14/02 RMC/PAUL MORETTA/PHONE. HE HEARD THAT NEXT DOOR NEIGHBOR HAS A SPILL PROBLEM, RMC SEARCHED RECORED FOUND NOTHING FROM INFORMATION GIVEN, THEY PLAN TO START O2 INJECTION, REPORT DUE 4/30/01 09/04/02 RMC/FILE. NOTHING RECEIVED, CONTACTED PAUL MORETTA. HE WILL SEND A LETTER WITHIN A WEEK ON THE SITE, DUE 9/15/02 09/20/02 RMC/FILE. RECEIVED LETTER REQUESTING INACTIVE. REVIEWED FILE. NO TOTAL SOILS ANALYSIS EVER DONE. GW RESULTS IN 200 PPM RANGE. REMEDIATION REQUIRED. LETTER. RESPONSE DUE 11/1/02 10/03/02 RMC/FILE. RMC TALKED TO PAUL MORETTA AND ANDY K. BUFFALO DRILLING, RMC ADVISED THAT CONTAMINATION WAS NOTED IN 1993 BY INSPECTORS DURING THE UST REMOVALS. RMC ALSO NOTED THAT GW IN THE AREA IS HIGHLY CONTAMINATED. UPDATE 11/1/02 12/04/02 RMC/FILE. RECEIVED REPORT AND LETTER FROM HSE REQUESTING CLOSURE. REPORT SHOWS SOIL BORINGS. NO BORING LOGS, NOTED PETROLEUM TYPE ODORS IN SOME OF THE BORINGS. ANALYITICAL PROVIVED MEETS TAGM TABLES. SITE REQUIRES FURTHER WORK DUE TO GW CONTAMINATION AND PETROLUEM TYPE ODORS IN SOIL. SEE FILE. LEFT MESSAGE FOR CRAIG SLATER TO CALL. 12/04/02 RMC/CRAIG SLATER/PHONE. WANTS TO REVIEW FILE NEXT MONDAY A 2PM. NOTIFIED KAB. UPDATE 12/30/02, REVISED TO 1/15/03 02/21/03 RMC/FILE. LEFT MESSAGE FOR CRAIG SLATER TO CALL. CALL DUE 3/1/03 02/24/03 RMC/FILE. RECEIVED AND RETURNED SLATERS MESSAGE. UPDATE 3/1/03 03/06/03 RMC/SAC/SLATER/KUCSERIK/MORETTA/MEETING. RP REQUESTED STATUS CHANGE. DEC ADVISED THAT LEVELS ARE TOO HIGH, RP TO DO ADDITIONAL SAMPLING. UPDATE 4/15/03 06/13/03 RMC/FILE. NO REPSONSE FROM RP, LEFT MESSAGE FOR RPS CRAIG SLATER. UPDATE 6/30/03 06/13/03 RMC/CRAIG SLATER/PHONE. THEY ARE DOING SAMPLING, REPORT DUE 7/15/03 10/30/03 RMC/FILE. PRP IS NON RESPONSIVE TO REPEATED REQUESTS FOR WORK TO BE DONE ON THIS SITE FOR YEARS, LEGAL REFERAL, UPDATE 03/01/2004 06/16/04 RMC/FILE. REFERAL WENT TO LEGAL IN MARCH. NO WORD YET, UPDATE 9/1/04. 10/18/04 RMC/FILE. MESSAGE TO KING REQUESTING LEGAL UPDATE. SPILL ASSIGNED TO ANNETTE SANSONE. UPDATE 1/1/05. 05/14/05 RMC/FILE. RECEIVED COPY OF LETTER LEGAL SENT TO CRAIG SLATER. UPDATE 7/30/05. 05/31/05 RMC/DK/ANNETTE S/MEETING. PRP PROVIDED SAMPLING FROM 2003 WHICH SHOWS THAT LEVELS IN WELLS HAD DECREASED 10 TIMES SINCE LAST TESTS. TO SAMPLE TWO WELLS FOR NEXT

ALLENTOWN TRADING COMPANY (Continued) **U003107394**

THREE QUARTERS. AND MEET AGAIN. WE WILL LOOK INTO O2 UNIT. THEY WILL DO A FS. NEXT ROUND DUE 7/15/05. 06/02/05 RMC/FILE. RECEIVED EMAIL THAN A O2 UNIT MAY BE AVAILABLE IN REGION 5. PASSED ALONG INFORMATION TO CRAIG SLATER. 08/01/05 RMC/CRAIG SLATER/PHONE. RMC REMINDED OF REPORT DUE, DUE 8/30/05 08/30/05 RMC/FILE. NOTHING RECEIVED, REQUESTED ANNETTE S. FOLLOW UP WITH CRAIG SLATER. UPDATE 9/30/05. 10/03/05 RMC/FILE. NOTHING YET, ANNETTE SANSONE IS WORKING ON, UPDATE 10/30/05. 11/14/05 RMC/FILE. REVIEWED SAMPLE RESULTS, SIGNIFICANT EXCEEDANCES IN GW AT PROPERTY LINE IN MW14 100PPM AND GREATER EXCEEDANCES IN MW12 140PPM. DISCUSSED WITH DAN KING. REMEDIATION IS REQUIRED, CALLED CRAIG SLATER AND ADVISED NEED FOR REMEDIAITON, THEY ARE CONSIDERING SUB SURFACE REMEDIATION. RMC ADVISED THAT THIS WAS TRIED HERE AND IT DIDN'T WORK. RMC DRAFTED LETTER REQUESTING FURTHER ASSESSMENT AND RAP. UPDATE 12/22/05. 12/09/05 RMC/FILE. RECEIVED MESSAGE FROM DAN KING THAT THEY WOULD NOT BE READY BY 12/16/05. RMC CONTACTED CRAIG SLATER AND ANDY K. THAT THREE MORE WEEKS WOULD BE OK, RESPONSE DUE 1/22/06. 03/01/06 RMC/FILE. NOTHING RECEIVED. LEFT MESSAGE FOR CRAIG SLATER. CALL DUE 3/10/06. 03/02/06 RMC/CRAIG SLATER/PHONE. GETTING PRICES. PLAN DUE BY 4/1/06. 05/03/06 RMC/FILE. NOTHING RECEIVED. CALLED CRAIG SLATER, LEFT MESSAGE. BACK TO LEGAL IF NOTHING BY 5/15/06. 05/25/06 RMC/CRAIG SLATER/PHONE. CRAIG CALLED TO ADVISE THEY HAVE A WORK PLAN. WILL MEET ON SITE WITH THE CONTRACTOR NEXT WEEK. IF THE PLAN IS DEEMED FEASIBLE IT WILL BE SUBMITTED TO DEC WITHIN TWO WEEKS. DUE 6/15/06. 11/28/06 RMC/FILE. RMC INSPECTED SITE SEVERAL TIMES DURING EXCAVATION IN OCTOBER. EXCAVATED AN AREA 50 BY 30 BY 10 FEET DEEP. UP AGAINST THE ROAD AND SOUTH PROPERTY LINE. ALSO LIMITED BY BUILDING. RECEIVED EXCAVATION SOIL SAMPLE RESULTS. ALL MEET TAGM. RECEIVED DISPOSAL RECEIPTS FOR 590 TONS IMPACTED SOIL THAT WAS REMOVED. REVIEWED WITH SAC. NEED TO SAMPLE MW14 AGAIN. EMAILED CRAIG SLATER. UPDATE 1/30/07. 01/05/07 RMC/FILE. CRAIG SLATER AND SAC DISCUSSIONS. MW14 REQUIRES SAMPLING. DUE 2/28/07. 11/15/07 RMC/FILE. DKK AND RMC INSPECTED THE SITE IN 9/07. BAILED MW14. WELL HAD PETROLEUM ODOR. DKK REVIEWED THE FILE AND DETERMINED THAT REMOVAL OF ANY ADDITIONAL CONTAMINED SOILS NOT POSSIBLE. SITE TO BE MADE INACTIVE. LETTER. INACTIVE. "

Remarks: "TANK TEST FAILURE."

All TTF:

Facility ID:	9306552
Spill Number:	9306552
Spill Tank Test:	1541926
Site ID:	128501
Tank Number:	Not reported
Tank Size:	0
Material:	1213A
EPA UST:	Not reported
UST:	Not reported
Cause:	Not reported
Source:	Not reported
Test Method:	00
Test Method 2:	Unknown
Leak Rate:	.00
Gross Fail:	Not reported
Modified By:	Spills
Last Modified Date:	Not reported

All Materials:

ALLENTOWN TRADING COMPANY (Continued) **U003107394**

Site ID: 128501
Operable Unit ID: 984727
Operable Unit: 01
Material ID: 573026
Material Code: 1213A
Material Name: MTBE (methyl-tert-butyl ether)
Case No.: 01634044
Material FA: Hazardous Material
Quantity: Not reported
Units: Not reported
Recovered: Not reported
Oxygenate: True

Site ID: 128501
Operable Unit ID: 984727
Operable Unit: 01
Material ID: 396412
Material Code: 0009
Material Name: gasoline
Case No.: Not reported
Material FA: Petroleum
Quantity: .00
Units: L
Recovered: .00
Oxygenate: True

UST:
Id/Status: 9-220817 / Active
Program Type: PBS
Region: STATE
DEC Region: 9
Expiration Date: 06/18/2021
UTM X: 183702.12924
UTM Y: 4756902.93391
Site Type: Retail Gasoline Sales

Affiliation Records:
Site Id: 52939
Affiliation Type: Emergency Contact
Company Name: 6253 GROUP, INC.
Contact Type: Not reported
Contact Name: JOE HANNON
Address1: Not reported
Address2: Not reported
City: Not reported
State: NN
Zip Code: Not reported
Country Code: 999
Phone: (716) 854-0060
EMail: Not reported
Fax Number: Not reported
Modified By: THKNIZEK
Date Last Modified: 2009-07-27

Site Id: 52939
Affiliation Type: Mail Contact

ALLENTOWN TRADING COMPANY (Continued) **U003107394**

Company Name:	10 ELLICOTT SQUARE COURT CORPORATION
Contact Type:	Not reported
Contact Name:	JOSEPH HANNON
Address1:	295 MAIN ST.
Address2:	SUITE 210
City:	BUFFALO
State:	NY
Zip Code:	14203
Country Code:	001
Phone:	(716) 854-0060
EMail:	JHANNON@ELLICOTTDEVELOPMENT.COM
Fax Number:	Not reported
Modified By:	AESKALSK
Date Last Modified:	2016-11-28

Site Id:	52939
Affiliation Type:	Facility Owner
Company Name:	6253 GROUP, INC.
Contact Type:	PRESIDENT
Contact Name:	WILLIAM A. PALADINO
Address1:	295 MAIN STREET SUITE 210
Address2:	Not reported
City:	BUFFALO
State:	NY
Zip Code:	14203
Country Code:	001
Phone:	(716) 854-0060
EMail:	Not reported
Fax Number:	Not reported
Modified By:	AESKALSK
Date Last Modified:	2016-11-28

Site Id:	52939
Affiliation Type:	Facility Operator
Company Name:	ALLENTOWN TRADING COMPANY
Contact Type:	Not reported
Contact Name:	JUSTIN SELAPACK
Address1:	Not reported
Address2:	Not reported
City:	Not reported
State:	NN
Zip Code:	Not reported
Country Code:	001
Phone:	(716) 881-0608
EMail:	Not reported
Fax Number:	Not reported
Modified By:	AESKALSK
Date Last Modified:	2016-11-28

Tank Info:

Tank Number:	1
Tank ID:	177455
Tank Status:	In Service
Material Name:	In Service
Capacity Gallons:	10000
Install Date:	02/01/1996

ALLENTOWN TRADING COMPANY (Continued) **U003107394**

Date Tank Closed: Not reported
Registered: True
Tank Location: Underground
Tank Type: Steel/carbon steel
Material Code: 0009
Common Name of Substance: Gasoline

Tightness Test Method: -
Date Test: Not reported
Next Test Date: Not reported
Pipe Model: Not reported
Modified By: AESKALSK
Last Modified: 10/31/2017

Equipment Records:

D11 - Pipe Type - Flexible Piping
G04 - Tank Secondary Containment - Double-Walled (Underground)
L07 - Piping Leak Detection - Pressurized Piping Leak Detector
B02 - Tank External Protection - Original Sacrificial Anode
E04 - Piping Secondary Containment - Double walled UG
F00 - Pipe External Protection - None
J01 - Dispenser - Pressurized Dispenser
C02 - Pipe Location - Underground/On-ground
K01 - Spill Prevention - Catch Basin
A00 - Tank Internal Protection - None
B01 - Tank External Protection - Painted/Asphalt Coating
H01 - Tank Leak Detection - Interstitial - Electronic Monitoring
I01 - Overfill - Float Vent Valve

Tank Number: 1-A
Tank ID: 177456
Tank Status: Closed - Removed
Material Name: Closed - Removed
Capacity Gallons: 2000
Install Date: Not reported
Date Tank Closed: 02/01/1994
Registered: True
Tank Location: Underground
Tank Type: Steel/carbon steel
Material Code: 0009
Common Name of Substance: Gasoline

Tightness Test Method: 03
Date Test: 01/01/1988
Next Test Date: Not reported
Pipe Model: Not reported
Modified By: LJJUDD
Last Modified: 04/14/2017

Equipment Records:

H00 - Tank Leak Detection - None
I00 - Overfill - None
B00 - Tank External Protection - None
C00 - Pipe Location - No Piping
F00 - Pipe External Protection - None
G00 - Tank Secondary Containment - None
J02 - Dispenser - Suction Dispenser

ALLENTOWN TRADING COMPANY (Continued) **U003107394**

D00 - Pipe Type - No Piping
A00 - Tank Internal Protection - None

Tank Number: 2
Tank ID: 177457
Tank Status: In Service
Material Name: In Service
Capacity Gallons: 8000
Install Date: 02/01/1996
Date Tank Closed: Not reported
Registered: True
Tank Location: Underground
Tank Type: Steel/carbon steel
Material Code: 0009
Common Name of Substance: Gasoline

Tightness Test Method: -
Date Test: Not reported
Next Test Date: Not reported
Pipe Model: Not reported
Modified By: AESKALSK
Last Modified: 10/31/2017

Equipment Records:

K01 - Spill Prevention - Catch Basin
B02 - Tank External Protection - Original Sacrificial Anode
E04 - Piping Secondary Containment - Double walled UG
F00 - Pipe External Protection - None
J01 - Dispenser - Pressurized Dispenser
L07 - Piping Leak Detection - Pressurized Piping Leak Detector
D11 - Pipe Type - Flexible Piping
G04 - Tank Secondary Containment - Double-Walled (Underground)
C02 - Pipe Location - Underground/On-ground
A00 - Tank Internal Protection - None
B01 - Tank External Protection - Painted/Asphalt Coating
H01 - Tank Leak Detection - Interstitial - Electronic Monitoring
I01 - Overfill - Float Vent Valve

Tank Number: 2-A
Tank ID: 177458
Tank Status: Closed - Removed
Material Name: Closed - Removed
Capacity Gallons: 2000
Install Date: Not reported
Date Tank Closed: 02/01/1994
Registered: True
Tank Location: Underground
Tank Type: Steel/carbon steel
Material Code: 0009
Common Name of Substance: Gasoline

Tightness Test Method: 03
Date Test: 01/01/1988
Next Test Date: Not reported
Pipe Model: Not reported
Modified By: LJJUDD

ALLENTOWN TRADING COMPANY (Continued) **U003107394**

Last Modified: 04/14/2017

Equipment Records:

B00 - Tank External Protection - None
C00 - Pipe Location - No Piping
F00 - Pipe External Protection - None
G00 - Tank Secondary Containment - None
J02 - Dispenser - Suction Dispenser
D00 - Pipe Type - No Piping
H00 - Tank Leak Detection - None
I00 - Overfill - None
A00 - Tank Internal Protection - None

Tank Number: 3
Tank ID: 163220
Tank Status: Closed - Removed
Material Name: Closed - Removed
Capacity Gallons: 2000
Install Date: Not reported
Date Tank Closed: 02/01/1994
Registered: True
Tank Location: Underground
Tank Type: Steel/carbon steel
Material Code: 0009
Common Name of Substance: Gasoline

Tightness Test Method: 03
Date Test: 01/01/1988
Next Test Date: Not reported
Pipe Model: Not reported
Modified By: LJJUDD
Last Modified: 04/14/2017

Equipment Records:

D00 - Pipe Type - No Piping
B00 - Tank External Protection - None
C00 - Pipe Location - No Piping
F00 - Pipe External Protection - None
G00 - Tank Secondary Containment - None
J02 - Dispenser - Suction Dispenser
H00 - Tank Leak Detection - None
I00 - Overfill - None
A00 - Tank Internal Protection - None

Tank Number: 4
Tank ID: 163221
Tank Status: Closed - Removed
Material Name: Closed - Removed
Capacity Gallons: 2000
Install Date: Not reported
Date Tank Closed: 02/01/1994
Registered: True
Tank Location: Underground
Tank Type: Steel/carbon steel
Material Code: 0009
Common Name of Substance: Gasoline

ALLENTOWN TRADING COMPANY (Continued) **U003107394**

Tightness Test Method:	03
Date Test:	01/01/1988
Next Test Date:	Not reported
Pipe Model:	Not reported
Modified By:	LJJUDD
Last Modified:	04/14/2017

Equipment Records:

B00 - Tank External Protection - None
C00 - Pipe Location - No Piping
F00 - Pipe External Protection - None
G00 - Tank Secondary Containment - None
J02 - Dispenser - Suction Dispenser
H00 - Tank Leak Detection - None
I00 - Overfill - None
D00 - Pipe Type - No Piping
A00 - Tank Internal Protection - None

66
ESE
1/8-1/4
0.209 mi.
1104 ft.

UNIVERSITY AT BUFFALO FOUNDATION
77 GOODELL ST
BUFFALO, NY 14203

RCRA-CESQG **1000214535**
FINDS **NYD982180127**
ECHO
NY MANIFEST

Relative:
Lower

Actual:
629 ft.

RCRA-CESQG:

Date form received by agency:	08/13/2009
Facility name:	UNIVERSITY AT BUFFALO FOUNDATION
Facility address:	77 GOODELL ST BUFFALO, NY 14203-1205
EPA ID:	NYD982180127
Mailing address:	WINSPEAR AVE BUFFALO, NY 14215
Contact:	ANTHONY OSWALD
Contact address:	WINSPEAR AVE BUFFALO, NY 14215
Contact country:	US
Contact telephone:	716-829-3301
Contact email:	ACOSWALD@BUFFALO.EDU
EPA Region:	02
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 hazardous waste

Owner/Operator Summary:

Owner/operator name:	PEOPLE OF THE STATE OF NEW YORK
Owner/operator address:	Not reported

UNIVERSITY AT BUFFALO FOUNDATION (Continued) **1000214535**

Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: State
Owner/Operator Type: Owner
Owner/Op start date: 07/15/2009
Owner/Op end date: Not reported

Owner/operator name: UNDER LICENSE TO UNIVERSITY AT BUFFALO
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: State
Owner/Operator Type: Operator
Owner/Op start date: 07/15/2009
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
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 01/01/2007
Site name: INTERCONTINENTAL BRANDED APPAREL
Classification: Not a generator, verified

Date form received by agency: 01/01/2006
Site name: INTERCONTINENTAL BRANDED APPAREL
Classification: Not a generator, verified

Date form received by agency: 07/08/1999
Site name: INTERCONTINENTAL BRANDED APPAREL
Classification: Not a generator, verified

Date form received by agency: 04/01/1987
Site name: INTERCONTINENTAL BRANDED APPAREL

UNIVERSITY AT BUFFALO FOUNDATION (Continued) **1000214535**

Classification: Small Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: F001
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLORETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Violation Status: No violations found

FINDS:

Registry ID: 110004414367

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.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1000214535
Registry ID: 110004414367
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110004414367

NY MANIFEST:
Country: USA
EPA ID: NYD982180127
Facility Status: Not reported
Location Address 1: 77 GOODELL ST
Code: BP
Location Address 2: Not reported
Total Tanks: Not reported

UNIVERSITY AT BUFFALO FOUNDATION (Continued) **1000214535**

Location City:	BUFFALO
Location State:	NY
Location Zip:	14203
Location Zip 4:	1205

NY MANIFEST:

EPAID:	NYD982180127
Mailing Name:	UNIVERSITY AT BUFFALO
Mailing Contact:	INTERCONTINENTAL BRANDING APPERL
Mailing Address 1:	220 WINSPEAR AVE
Mailing Address 2:	Not reported
Mailing City:	BUFFALO
Mailing State:	NY
Mailing Zip:	14215
Mailing Zip 4:	Not reported
Mailing Country:	USA
Mailing Phone:	7168528280

NY MANIFEST:

Document ID:	Not reported
Manifest Status:	Not reported
seq:	Not reported
Year:	2015
Trans1 State ID:	NYD986903904
Trans2 State ID:	Not reported
Generator Ship Date:	06/08/2015
Trans1 Recv Date:	06/08/2015
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	06/17/2015
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported
Generator EPA ID:	NYD982180127
Trans1 EPA ID:	Not reported
Trans2 EPA ID:	Not reported
TSDF ID 1:	OHD083377010
TSDF ID 2:	Not reported
Manifest Tracking Number:	006690192FLE
Import Indicator:	N
Export Indicator:	N
Discr Quantity Indicator:	N
Discr Type Indicator:	N
Discr Residue Indicator:	N
Discr Partial Reject Indicator:	N
Discr Full Reject Indicator:	N
Manifest Ref Number:	Not reported
Alt Facility RCRA ID:	Not reported
Alt Facility Sign Date:	Not reported
MGMT Method Type Code:	H110
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Quantity:	150
Units:	P - Pounds
Number of Containers:	1

UNIVERSITY AT BUFFALO FOUNDATION (Continued) **1000214535**

Container Type:	DM - Metal drums, barrels
Handling Method:	L Landfill.
Specific Gravity:	1
Waste Code:	D008
Waste Code 1_2:	Not reported
Waste Code 1_3:	Not reported
Waste Code 1_4:	Not reported
Waste Code 1_5:	Not reported
Waste Code 1_6:	Not reported

Click this hyperlink while viewing on your computer to access
8 additional NY_MANIFEST: record(s) in the EDR Site Report.

L67 **M & V RING CO INC** **RCRA NonGen / NLR** **1000135314**
South **505 PEARL ST** **FINDS** **NYD013744180**
1/8-1/4 **BUFFALO, NY 14202** **ECHO**
0.211 mi. **NY MANIFEST**
1115 ft. **Site 3 of 5 in cluster L**

Relative:
Lower

Actual:
625 ft.

RCRA NonGen / NLR:

Date form received by agency:	01/01/2007
Facility name:	M & V RING CO INC
Facility address:	505 PEARL ST BUFFALO, NY 14202
EPA ID:	NYD013744180
Mailing address:	PEARL ST BUFFALO, NY 14202
Contact:	Not reported
Contact address:	PEARL ST BUFFALO, NY 14202
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:	Not reported
Owner/operator address:	NOT REQUIRED NOT REQUIRED, WY 99999
Owner/operator country:	US
Owner/operator telephone:	212-555-1212
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	Not reported
Owner/operator address:	NOT REQUIRED NOT REQUIRED, WY 99999
Owner/operator country:	US
Owner/operator telephone:	212-555-1212

M & V RING CO INC (Continued) **1000135314**

Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
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
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 01/01/2006
Site name: M & V RING CO INC
Classification: Not a generator, verified

Date form received by agency: 12/31/1979
Site name: M & V RING CO INC
Classification: Not a generator, verified

Violation Status: No violations found

FINDS:

Registry ID: 110009466229

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.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1000135314
Registry ID: 110009466229
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110009466229

M & V RING CO INC (Continued) **1000135314**

NY MANIFEST:

Country:	USA
EPA ID:	NYD013744180
Facility Status:	Not reported
Location Address 1:	505 PEARL ST
Code:	BP
Location Address 2:	Not reported
Total Tanks:	Not reported
Location City:	BUFFALO
Location State:	NY
Location Zip:	14202
Location Zip 4:	Not reported

NY MANIFEST:

EPAID:	NYD013744180
Mailing Name:	M & V RING CO INC
Mailing Contact:	PERRY BERGER
Mailing Address 1:	15 SANDPIPER CT
Mailing Address 2:	Not reported
Mailing City:	BUFFALO
Mailing State:	NY
Mailing Zip:	14228
Mailing Zip 4:	1061
Mailing Country:	USA
Mailing Phone:	7164451604

NY MANIFEST:

Document ID:	NJA2775648
Manifest Status:	Not reported
seq:	01
Year:	2000
Trans1 State ID:	NJDEP5016
Trans2 State ID:	Not reported
Generator Ship Date:	09/07/2000
Trans1 Recv Date:	09/07/2000
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	09/12/2000
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported
Generator EPA ID:	NYD013744180
Trans1 EPA ID:	NJD080631369
Trans2 EPA ID:	Not reported
TSDF ID 1:	NJD980536593
TSDF ID 2:	Not reported
Manifest Tracking Number:	Not reported
Import Indicator:	Not reported
Export Indicator:	Not reported
Discr Quantity Indicator:	Not reported
Discr Type Indicator:	Not reported
Discr Residue Indicator:	Not reported
Discr Partial Reject Indicator:	Not reported
Discr Full Reject Indicator:	Not reported
Manifest Ref Number:	Not reported
Alt Facility RCRA ID:	Not reported
Alt Facility Sign Date:	Not reported
MGMT Method Type Code:	Not reported
Waste Code:	P106 - SODIUM CYANIDE

M & V RING CO INC (Continued) **1000135314**

Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Quantity:	00040
Units:	P - Pounds
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	01.00
Waste Code:	P106 - SODIUM CYANIDE
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Quantity:	00060
Units:	P - Pounds
Number of Containers:	001
Container Type:	DF - Fiberboard or plastic drums (glass)
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	01.00

Click this hyperlink while viewing on your computer to access additional NY_MANIFEST: detail in the EDR Site Report.

L68 **PM REFINING INC** **RCRA NonGen / NLR** **1000355385**
South **505 PEARL ST** **NY MANIFEST** **NYD002104552**
1/8-1/4 **BUFFALO, NY 14202**
0.211 mi.
1115 ft. **Site 4 of 5 in cluster L**

Relative: **Lower**

Actual: **625 ft.**

RCRA NonGen / NLR:

Date form received by agency:	01/01/2007
Facility name:	PM REFINING INC
Facility address:	505 PEARL ST BUFFALO, NY 14202
EPA ID:	NYD002104552
Mailing address:	PEARL ST BUFFALO, NY 14202
Contact:	Not reported
Contact address:	PEARL ST BUFFALO, NY 14202
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:

Owner/operator name:	Not reported
Owner/operator address:	NOT REQUIRED NOT REQUIRED, WY 99999
Owner/operator country:	US

PM REFINING INC (Continued) **1000355385**

Owner/operator telephone: 212-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: Not reported
Owner/operator address: NOT REQUIRED
NOT REQUIRED, WY 99999
Owner/operator country: US
Owner/operator telephone: 212-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
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
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 01/01/2006
Site name: PM REFINING INC
Classification: Not a generator, verified

Date form received by agency: 03/29/1995
Site name: PM REFINING INC
Classification: Unverified

. Waste code: NONE
. Waste name: None

Date form received by agency: 03/08/1984
Site name: PM REFINING INC
Classification: Small Quantity Generator

. Waste code: D002

PM REFINING INC (Continued) **1000355385**

. Waste name: CORROSIVE WASTE

Facility Has Received Notices of Violations:
Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 08/26/1988
Date achieved compliance: 12/01/1988
Violation lead agency: State
Enforcement action: INITIAL 3008(A) COMPLIANCE
Enforcement action date: 10/07/1988
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 08/26/1988
Date achieved compliance: 12/01/1988
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 11/21/1988
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 2000
Paid penalty amount: 2000

Evaluation Action Summary:
Evaluation date: 02/10/1995
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 11/29/1989
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 08/26/1988
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 12/01/1988
Evaluation lead agency: State

NY MANIFEST:
Country: USA
EPA ID: NYD002104552
Facility Status: Not reported
Location Address 1: 505 PEARL ST
Code: BP
Location Address 2: Not reported

PM REFINING INC (Continued) **1000355385**

Total Tanks:	Not reported
Location City:	BUFFALO
Location State:	NY
Location Zip:	14202
Location Zip 4:	Not reported

NY MANIFEST:

EPAID:	NYD002104552
Mailing Name:	PM REFINING INCORPORATED
Mailing Contact:	PHILIP R LENARD
Mailing Address 1:	505 PEARL STREET
Mailing Address 2:	Not reported
Mailing City:	BUFFALO
Mailing State:	NY
Mailing Zip:	14202
Mailing Zip 4:	Not reported
Mailing Country:	USA
Mailing Phone:	7168567618

NY MANIFEST:

Document ID:	NYA5185935
Manifest Status:	C
seq:	Not reported
Year:	1988
Trans1 State ID:	NY62520-G
Trans2 State ID:	Not reported
Generator Ship Date:	09/08/1988
Trans1 Recv Date:	09/08/1988
Trans2 Recv Date:	/ /
TSD Site Recv Date:	09/08/1988
Part A Recv Date:	09/15/1988
Part B Recv Date:	09/13/1988
Generator EPA ID:	NYD002104552
Trans1 EPA ID:	NYD013711338
Trans2 EPA ID:	Not reported
TSDF ID 1:	NYD043815703
TSDF ID 2:	Not reported
Manifest Tracking Number:	Not reported
Import Indicator:	Not reported
Export Indicator:	Not reported
Discr Quantity Indicator:	Not reported
Discr Type Indicator:	Not reported
Discr Residue Indicator:	Not reported
Discr Partial Reject Indicator:	Not reported
Discr Full Reject Indicator:	Not reported
Manifest Ref Number:	Not reported
Alt Facility RCRA ID:	Not reported
Alt Facility Sign Date:	Not reported
MGMT Method Type Code:	Not reported
Waste Code:	D002 - NON-LISTED CORROSIVE WASTES
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Quantity:	01045
Units:	G - Gallons (liquids only)* (8.3 pounds)

PM REFINING INC (Continued) **1000355385**

Number of Containers: 019
Container Type: DM - Metal drums, barrels
Handling Method: T Chemical, physical, or biological treatment.
Specific Gravity: 100

Click this hyperlink while viewing on your computer to access
19 additional NY_MANIFEST: record(s) in the EDR Site Report.

L69 **SATURN RINGS INC** **NY Spills** **1004755775**
South **505 PEARL ST - 5TH FLOOR** **RCRA NonGen / NLR** **NY0000370734**
1/8-1/4 **BUFFALO, NY 14202** **FINDS**
0.211 mi. **ECHO**
1115 ft. **Site 5 of 5 in cluster L** **RI MANIFEST**
NY MANIFEST
Relative:
Lower

Actual:
625 ft.

SPILLS:

Facility ID:	8903811
Facility Type:	ER
Spill Number:	8903811
DER Facility ID:	128688
Site ID:	151423
DEC Region:	9
Closed Date:	1989-07-17
Spill Cause:	Other
Spill Class:	Not reported
SWIS:	1502
Spill Date:	1989-07-17
Investigator:	ROSS
Referred To:	Not reported
Reported to Dept:	1989-07-17
CID:	Not reported
Water Affected:	Not reported
Spill Source:	Gasoline Station or other PBS Facility
Spill Notifier:	Affected Persons
Cleanup Ceased:	1989-07-17
Cleanup Meets Std:	True
Last Inspection:	Not reported
Recommended Penalty:	False
UST Trust:	False
Remediation Phase:	0
Date Entered In Computer:	1989-07-17
Spill Record Last Update:	1989-07-31
Spiller Name:	Not reported
Spiller Company:	MONARCH CAST COMPANY
Spiller Address:	505 PEARL STREET
Spiller Company:	001
Contact Name:	Not reported
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was LQR 07/17/89: REFERED TO AIR RESOUCES TO INVESTIGATE. "
Remarks:	"ENVIROMENTAL PROBLEM IN BUILDING"

All Materials:

Site ID:	151423
Operable Unit ID:	931421
Operable Unit:	01
Material ID:	447884
Material Code:	0066A

SATURN RINGS INC (Continued) **1004755775**

Material Name: unknown petroleum
Case No.: Not reported
Material FA: Petroleum
Quantity: .00
Units: G
Recovered: .00
Oxygenate: Not reported

RCRA NonGen / NLR:
Date form received by agency: 01/01/2007
Facility name: SATURN RINGS INC
Facility address: 505 PEARL ST - 5TH FLOOR
BUFFALO, NY 14202
EPA ID: NY0000370734
Mailing address: PEARL ST - 5TH FLOOR
BUFFALO, NY 14202
Contact: MICHAEL HYMAN
Contact address: PEARL ST - 5TH FLOOR
BUFFALO, NY 14202
Contact country: US
Contact telephone: 716-856-7476
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: SATURN RINGS INC
Owner/operator address: 505 PEARL ST
BUFFALO, NY 14202
Owner/operator country: US
Owner/operator telephone: 716-856-7476
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: SATURN RINGS INC
Owner/operator address: 505 PEARL ST
BUFFALO, NY 14202
Owner/operator country: US
Owner/operator telephone: 716-856-7476
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No

SATURN RINGS INC (Continued) **1004755775**

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
Site name: SATURN RINGS INC
Classification: Not a generator, verified

Date form received by agency: 06/17/1994
Site name: SATURN RINGS INC
Classification: Conditionally Exempt Small Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D011
. Waste name: SILVER

Violation Status: No violations found

FINDS:

Registry ID: 110004316437

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.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1004755775
Registry ID: 110004316437
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110004316437

RI MANIFEST:
EPA Id: NY0000370734
Manifest Document Number: RIC0027555

SATURN RINGS INC (Continued) **1004755775**

GEN Cert Date: 7/18/1994
TSDF Id: RID980065642
TSDF Name: METALS TREATMENT CO,. INC.
TSDF Date: Not reported
Transporter 2 Id: CTD983872748
Transporter 2 Name: Not reported
Transporter Receipt Date: Not reported
Number Of Containers: 0
Container Type: Not reported
Waste Code1: D002
Waste Code2: D011
Waste Code3: Not reported
Fee Exempt Code: Not reported
Comment: Not reported

Details:
EPA ID: NY0000370734
Manifest Docket Number: RIC0027555
Waste Description: SULFURIC ACID
Quantity: 55
WT/Vol Units: G
Item Number: 1
Transporter Name: SEALAND ENVIRONMENTAL SERVICES
Transporter EPA ID: CTD983872748
GEN Cert Date: 7/18/1994
Transporter Receipt Date: Not reported
Transporter 2 Receipt Date: Not reported
TSDF Receipt Date: Not reported
Transporter 2 ID: CTD983872748

EPA ID: NY0000370734
Manifest Docket Number: RIC0027555
Waste Description: SULFURIC ACID
Quantity: 55
WT/Vol Units: G
Item Number: 1
Transporter Name: SEALAND ENVIRONMENTAL SERVICES
Transporter EPA ID: CTD983872748
GEN Cert Date: 7/18/1994
Transporter Receipt Date: Not reported
Transporter 2 Receipt Date: Not reported
TSDF Receipt Date: Not reported
Transporter 2 ID: CTD983872748

NY MANIFEST:
Country: USA
EPA ID: NY0000370734
Facility Status: Not reported
Location Address 1: 505 PEARL ST
Code: BP
Location Address 2: Not reported
Total Tanks: Not reported
Location City: BUFFALO
Location State: NY
Location Zip: 14202
Location Zip 4: Not reported

SATURN RINGS INC (Continued) **1004755775**

NY MANIFEST:

EPAID:	NY0000370734
Mailing Name:	SATURN RINGS
Mailing Contact:	JOHN KASPEREK
Mailing Address 1:	505 PEARL ST
Mailing Address 2:	Not reported
Mailing City:	BUFFALO
Mailing State:	NY
Mailing Zip:	14202
Mailing Zip 4:	Not reported
Mailing Country:	USA
Mailing Phone:	7168567618

NY MANIFEST:

Document ID:	NYG2184057
Manifest Status:	Not reported
seq:	01
Year:	2000
Trans1 State ID:	T491XNOH
Trans2 State ID:	Not reported
Generator Ship Date:	03/22/2000
Trans1 Recv Date:	03/22/2000
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	03/29/2000
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported
Generator EPA ID:	NY0000370734
Trans1 EPA ID:	OH0000000539
Trans2 EPA ID:	Not reported
TSDF ID 1:	OHD083377010
TSDF ID 2:	Not reported
Manifest Tracking Number:	Not reported
Import Indicator:	Not reported
Export Indicator:	Not reported
Discr Quantity Indicator:	Not reported
Discr Type Indicator:	Not reported
Discr Residue Indicator:	Not reported
Discr Partial Reject Indicator:	Not reported
Discr Full Reject Indicator:	Not reported
Manifest Ref Number:	Not reported
Alt Facility RCRA ID:	Not reported
Alt Facility Sign Date:	Not reported
MGMT Method Type Code:	Not reported
Waste Code:	D001 - NON-LISTED IGNITABLE WASTES
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Quantity:	00400
Units:	P - Pounds
Number of Containers:	002
Container Type:	DM - Metal drums, barrels
Handling Method:	T Chemical, physical, or biological treatment.
Specific Gravity:	01.00
Waste Code:	D002 - NON-LISTED CORROSIVE WASTES

SATURN RINGS INC (Continued) **1004755775**

Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Quantity:	00200
Units:	P - Pounds
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	T Chemical, physical, or biological treatment.
Specific Gravity:	01.00
Waste Code:	D002 - NON-LISTED CORROSIVE WASTES
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Quantity:	00200
Units:	P - Pounds
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	T Chemical, physical, or biological treatment.
Specific Gravity:	01.00
Waste Code:	D008 - LEAD 5.0 MG/L TCLP
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Quantity:	00200
Units:	P - Pounds
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	T Chemical, physical, or biological treatment.
Specific Gravity:	01.00

Click this hyperlink while viewing on your computer to access
5 additional NY_MANIFEST: record(s) in the EDR Site Report.

P70 **NIAGARA MOHAWK A NATIONAL GRID CO** **RCRA NonGen / NLR** **1018158857**
SW **W TUPPER AVE & DELAWARE AVE** **FINDS** **NYP000972174**
1/8-1/4 **BUFFALO, NY 14201** **ECHO**
0.213 mi.
1124 ft. **Site 1 of 3 in cluster P**

Relative: RCRA NonGen / NLR:
Lower

Date form received by agency:	04/07/2016
Facility name:	NIAGARA MOHAWK A NATIONAL GRID CO
Facility address:	W TUPPER AVE & DELAWARE AVE MH350 BUFFALO, NY 14201
EPA ID:	NYP000972174
Mailing address:	ERIE BLVD W SYRACUSE, NY 13202
Contact:	LENNY DELVECCHIO
Contact address:	ERIE BLVD W SYRACUSE, NY 13202
Contact country:	US
Contact telephone:	315-428-6670
Contact email:	Not reported

Actual:
620 ft.

NIAGARA MOHAWK A NATIONAL GRID CO (Continued) **1018158857**

EPA Region: 02
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: NATIONAL GRID
Owner/operator address: ERIE BLVD W
SYRACUSE, NY 13202
Owner/operator country: US
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 01/01/1900
Owner/Op end date: Not reported

Owner/operator name: NIAGARA MOHAWK POWER CORP
Owner/operator address: ERIE BLVD W
SYRACUSE, NY 13202
Owner/operator country: US
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 01/01/1900
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
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: B007
. Waste name: B007

Historical Generators:
Date form received by agency: 03/17/2016
Site name: NATIONAL GRID MH350 WEST TUPPER AVE BUFFALO
Classification: Large Quantity Generator

NIAGARA MOHAWK A NATIONAL GRID CO (Continued) **1018158857**

. Waste code: B002
. Waste name: B002

. Waste code: B007
. Waste name: B007

Date form received by agency: 09/10/2015
Site name: NIAGARA MOHAWK A NATIONAL GRID CO
Classification: Large Quantity Generator

. Waste code: B007
. Waste name: B007

Violation Status: No violations found

FINDS:

Registry ID: 110066947371

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.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1018158857
Registry ID: 110066947371
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110066947371

P71 **NIAGARA MOHAWK A NATIONAL GRID CO** **NY MANIFEST** **S118256516**
SW **W TUPPER AVE & DELAWARE AVE** **N/A**
1/8-1/4 **BUFFALO, NY 14201**
0.213 mi.
1124 ft. **Site 2 of 3 in cluster P**

Relative:
Lower

Actual:
620 ft.

NY MANIFEST:
Country: USA
EPA ID: NYP000972174
Facility Status: Not reported
Location Address 1: WEST TUPPER AVENUE
Code: BP
Location Address 2: Not reported
Total Tanks: Not reported
Location City: BUFFALO
Location State: NY
Location Zip: 14201
Location Zip 4: Not reported

NY MANIFEST:
EPAID: NYP000972174
Mailing Name: NIAGARA MOHAWK A NATIONAL GRID CO

NIAGARA MOHAWK A NATIONAL GRID CO (Continued) **S118256516**

Mailing Contact:	L MONTESANO
Mailing Address 1:	144 KENSINGTON AVE
Mailing Address 2:	Not reported
Mailing City:	BUFFALO
Mailing State:	NY
Mailing Zip:	14214
Mailing Zip 4:	Not reported
Mailing Country:	USA
Mailing Phone:	7168317209

NY MANIFEST:

Document ID:	Not reported
Manifest Status:	Not reported
seq:	Not reported
Year:	2015
Trans1 State ID:	NYD986980753
Trans2 State ID:	Not reported
Generator Ship Date:	09/22/2015
Trans1 Recv Date:	09/22/2015
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	09/22/2015
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported
Generator EPA ID:	NYP000972174
Trans1 EPA ID:	Not reported
Trans2 EPA ID:	Not reported
TSDF ID 1:	NYD049836679
TSDF ID 2:	Not reported
Manifest Tracking Number:	003045119FLE
Import Indicator:	N
Export Indicator:	N
Discr Quantity Indicator:	N
Discr Type Indicator:	N
Discr Residue Indicator:	N
Discr Partial Reject Indicator:	N
Discr Full Reject Indicator:	N
Manifest Ref Number:	Not reported
Alt Facility RCRA ID:	Not reported
Alt Facility Sign Date:	Not reported
MGMT Method Type Code:	H141
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Quantity:	160
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	1
Container Type:	DM - Metal drums, barrels
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	1
Waste Code:	Not reported
Waste Code 1_2:	Not reported
Waste Code 1_3:	Not reported
Waste Code 1_4:	B007
Waste Code 1_5:	Not reported

NIAGARA MOHAWK A NATIONAL GRID CO (Continued) **S118256516**

Waste Code 1_6: Not reported

Click this hyperlink while viewing on your computer to access
1 additional NY_MANIFEST: record(s) in the EDR Site Report.

Q72 **NOCO MOTOR FUELS S-45** **NY LTANKS** **U001851847**
WNW **400 VIRGINIA AVE** **NY UST** **N/A**
1/8-1/4 **BUFFALO, NY 14201**
0.216 mi.
1138 ft. **Site 1 of 2 in cluster Q**

Relative: **Lower**

Actual: **627 ft.**

LTANKS:

Facility ID:	9401935
Site ID:	115285
Closed Date:	1994-06-10
Spill Number:	9401935
Spill Date:	1994-05-09
Spill Cause:	Tank Failure
Spill Source:	Gasoline Station or other PBS Facility
Spill Class:	C3
Cleanup Ceased:	1994-06-10
SWIS:	1502
Investigator:	COOKE
Referred To:	Not reported
Reported to Dept:	1994-05-09
CID:	Not reported
Water Affected:	Not reported
Spill Notifier:	DEC
Last Inspection:	1994-05-10
Recommended Penalty:	False
Meets Standard:	True
UST Involvement:	True
Remediation Phase:	0
Date Entered In Computer:	1994-05-12
Spill Record Last Update:	1995-01-31
Spiller Name:	Not reported
Spiller Company:	NOCO ENERGY
Spiller Address:	700 GRAND ISLAND BLVD
Spiller County:	001
Spiller Contact:	Not reported
Spiller Phone:	Not reported
Spiller Extention:	Not reported
DEC Region:	9
DER Facility ID:	100458
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was JDC 05/09/94: JDC ON SITE, TANK EXCAVATION NO VISIABLE CONTAMINATION, SENT LETTER TO GARY ROESCH, NOCO REQUEST STANDARD CLEANUP AND TESTING. 05/10/94: JDC ON SITE, EXCAVATION FOR THIRD TANK SHOWD NO EVIDENCE OF CONTAMINATION. SOIL SAMPLES COLLECTED FOR CLEAN DETEMINATION. 06/10/94: POST ANALYSIS FOR BOTH EXCAVATIONS MEET SOIL STANDARDS; REMOVED SOIL ANALYSIS INDICATES NON-HAZ. 6/10/94 LETTER FROM NOCO STATED SOILS REMOVED TO RIVER RD FOR BIO-TREAT. NO FURTHER ACTION REQUIRED. "
Remarks:	"SOIL CONTAMINATION FOUND DURING TANK REMOVAL"

All Materials:

Site ID:	115285

NOCO MOTOR FUELS S-45 (Continued) **U001851847**

Operable Unit ID:	999002
Operable Unit:	01
Material ID:	385674
Material Code:	0009
Material Name:	gasoline
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	.00
Units:	G
Recovered:	.00
Oxygenate:	Not reported

UST:

Id/Status:	9-222615 / Unregulated/Closed
Program Type:	PBS
Region:	STATE
DEC Region:	9
Expiration Date:	N/A
UTM X:	183468.54806
UTM Y:	4756732.32941
Site Type:	Retail Gasoline Sales

Affiliation Records:

Site Id:	53090
Affiliation Type:	Mail Contact
Company Name:	NOCO ENERGY CORP
Contact Type:	Not reported
Contact Name:	GARY ROESCH
Address1:	700 GRAND ISLAND BLVD
Address2:	Not reported
City:	TONAWANDA
State:	NY
Zip Code:	14150
Country Code:	001
Phone:	(716) 874-6200
EMail:	Not reported
Fax Number:	Not reported
Modified By:	TRANSLAT
Date Last Modified:	2004-03-04

Site Id:	53090
Affiliation Type:	Facility Owner
Company Name:	NOCO MOTOR FUELS
Contact Type:	Not reported
Contact Name:	Not reported
Address1:	2440 SHERIDAN DRIVE
Address2:	Not reported
City:	TONAWANDA
State:	NY
Zip Code:	14150
Country Code:	001
Phone:	(716) 833-6626
EMail:	Not reported
Fax Number:	Not reported
Modified By:	TRANSLAT
Date Last Modified:	2004-03-04

NOCO MOTOR FUELS S-45 (Continued) **U001851847**

Site Id:	53090
Affiliation Type:	Emergency Contact
Company Name:	NOCO MOTOR FUELS
Contact Type:	Not reported
Contact Name:	GARY ROESCH
Address1:	Not reported
Address2:	Not reported
City:	Not reported
State:	NN
Zip Code:	Not reported
Country Code:	001
Phone:	(716) 874-6200
EMail:	Not reported
Fax Number:	Not reported
Modified By:	TRANSLAT
Date Last Modified:	2004-03-04

Site Id:	53090
Affiliation Type:	Facility Operator
Company Name:	NOCO MOTOR FUELS S-45
Contact Type:	Not reported
Contact Name:	NOCO MOTOR FUELS
Address1:	Not reported
Address2:	Not reported
City:	Not reported
State:	NN
Zip Code:	Not reported
Country Code:	001
Phone:	(716) 884-4276
EMail:	Not reported
Fax Number:	Not reported
Modified By:	TRANSLAT
Date Last Modified:	2004-03-04

Tank Info:

Tank Number:	1
Tank ID:	164319
Tank Status:	Closed - Removed
Material Name:	Closed - Removed
Capacity Gallons:	6000
Install Date:	05/01/1972
Date Tank Closed:	05/01/1994
Registered:	True
Tank Location:	Underground
Tank Type:	Steel/carbon steel
Material Code:	0009
Common Name of Substance:	Gasoline

Tightness Test Method:	14
Date Test:	04/01/1992
Next Test Date:	Not reported
Pipe Model:	Not reported
Modified By:	TRANSLAT
Last Modified:	04/14/2017

Equipment Records:

NOCO MOTOR FUELS S-45 (Continued) **U001851847**

G00 - Tank Secondary Containment - None
C02 - Pipe Location - Underground/On-ground
D06 - Pipe Type - Fiberglass Reinforced Plastic (FRP)
F00 - Pipe External Protection - None
J01 - Dispenser - Pressurized Dispenser
B00 - Tank External Protection - None
I04 - Overfill - Product Level Gauge (A/G)
A00 - Tank Internal Protection - None
H05 - Tank Leak Detection - In-Tank System (ATG)

Tank Number: 2
Tank ID: 164320
Tank Status: Closed - Removed
Material Name: Closed - Removed
Capacity Gallons: 10000
Install Date: 09/01/1977
Date Tank Closed: 05/01/1994
Registered: True
Tank Location: Underground
Tank Type: Steel/carbon steel
Material Code: 0009
Common Name of Substance: Gasoline

Tightness Test Method: 14
Date Test: 04/01/1992
Next Test Date: Not reported
Pipe Model: Not reported
Modified By: TRANSLAT
Last Modified: 04/14/2017

Equipment Records:

I04 - Overfill - Product Level Gauge (A/G)
D06 - Pipe Type - Fiberglass Reinforced Plastic (FRP)
B00 - Tank External Protection - None
F00 - Pipe External Protection - None
J01 - Dispenser - Pressurized Dispenser
A00 - Tank Internal Protection - None
C02 - Pipe Location - Underground/On-ground
G00 - Tank Secondary Containment - None
H05 - Tank Leak Detection - In-Tank System (ATG)

Tank Number: 3
Tank ID: 164321
Tank Status: Closed - Removed
Material Name: Closed - Removed
Capacity Gallons: 10000
Install Date: 09/01/1977
Date Tank Closed: 05/01/1994
Registered: True
Tank Location: Underground
Tank Type: Steel/carbon steel
Material Code: 0009
Common Name of Substance: Gasoline

Tightness Test Method: 14
Date Test: 04/01/1992

NOCO MOTOR FUELS S-45 (Continued) **U001851847**

Next Test Date: Not reported
Pipe Model: Not reported
Modified By: TRANSLAT
Last Modified: 04/14/2017

Equipment Records:

H05 - Tank Leak Detection - In-Tank System (ATG)
D06 - Pipe Type - Fiberglass Reinforced Plastic (FRP)
I04 - Overfill - Product Level Gauge (A/G)
B00 - Tank External Protection - None
F00 - Pipe External Protection - None
J01 - Dispenser - Pressurized Dispenser
C02 - Pipe Location - Underground/On-ground
G00 - Tank Secondary Containment - None
A00 - Tank Internal Protection - None

Tank Number: 4
Tank ID: 164322
Tank Status: Closed - Removed
Material Name: Closed - Removed
Capacity Gallons: 550
Install Date: 05/01/1955
Date Tank Closed: Not reported
Registered: True
Tank Location: Underground
Tank Type: Steel/carbon steel
Material Code: 9999
Common Name of Substance: Other

Tightness Test Method: NN
Date Test: Not reported
Next Test Date: Not reported
Pipe Model: Not reported
Modified By: TRANSLAT
Last Modified: 04/14/2017

Equipment Records:

B00 - Tank External Protection - None
C00 - Pipe Location - No Piping
D02 - Pipe Type - Galvanized Steel
F00 - Pipe External Protection - None
H00 - Tank Leak Detection - None
I00 - Overfill - None
A00 - Tank Internal Protection - None
G00 - Tank Secondary Containment - None
J02 - Dispenser - Suction Dispenser

Tank Number: 5
Tank ID: 164323
Tank Status: Closed - Removed
Material Name: Closed - Removed
Capacity Gallons: 550
Install Date: 05/01/1955
Date Tank Closed: Not reported
Registered: True
Tank Location: Underground

NOCO MOTOR FUELS S-45 (Continued) **U001851847**

Tank Type: Steel/carbon steel
Material Code: 0001
Common Name of Substance: #2 Fuel Oil (On-Site Consumption)

Tightness Test Method: NN
Date Test: Not reported
Next Test Date: Not reported
Pipe Model: Not reported
Modified By: TRANSLAT
Last Modified: 04/14/2017

Equipment Records:

G00 - Tank Secondary Containment - None
J02 - Dispenser - Suction Dispenser
B00 - Tank External Protection - None
C00 - Pipe Location - No Piping
D02 - Pipe Type - Galvanized Steel
F00 - Pipe External Protection - None
A00 - Tank Internal Protection - None
H00 - Tank Leak Detection - None
I00 - Overfill - None

Q73 **FAMILY DOLLAR STORE #6320** **RCRA-CESQG** **1017788143**
WNW **400 VIRGINIA ST** **FINDS** **NYR000218826**
1/8-1/4 **BUFFALO, NY 14201** **ECHO**
0.216 mi.
1138 ft. **Site 2 of 2 in cluster Q**

Relative:
Lower

Actual:
627 ft.

RCRA-CESQG:
Date form received by agency: 08/25/2015
Facility name: FAMILY DOLLAR STORE #6320
Facility address: 400 VIRGINIA ST
BUFFALO, NY 14201-2023
EPA ID: NYR000218826
Mailing address: PO BOX 1017
CHARLOTTE, NC 45299
Contact: KEVIN STRAIGHT
Contact address: PO BOX 1017
CHARLOTTE, NC 45299
Contact country: US
Contact telephone: 704-708-1909
Contact email: KSTRAIGHT@FAMILYDOLLAR.COM
EPA Region: 02
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 hazardous waste

FAMILY DOLLAR STORE #6320 (Continued) **1017788143**

Owner/Operator Summary:
Owner/operator name: FAMILY DOLLAR STORES
Owner/operator address: Not reported
Not reported
Owner/operator country: US
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 06/17/2004
Owner/Op end date: Not reported

Owner/operator name: 9274 GROUP INC
Owner/operator address: MAIN ST #210
BUFFALO, NY 14203
Owner/operator country: US
Owner/operator telephone: 716-854-0060
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 11/21/2014
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
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D004
. Waste name: ARSENIC

. Waste code: D005
. Waste name: BARIUM

FAMILY DOLLAR STORE #6320 (Continued) **1017788143**

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D009
. Waste name: MERCURY

. Waste code: D010
. Waste name: SELENIUM

. Waste code: D011
. Waste name: SILVER

. Waste code: D016
. Waste name: 2,4-D (2,4-DICHLOROPHENOXYACETIC ACID)

. Waste code: D024
. Waste name: M-CRESOL

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: U002
. Waste name: 2-PROPANONE (I) (OR) ACETONE (I)

Historical Generators:
Date form received by agency: 03/10/2015
Site name: FAMILY DOLLAR STORE #6320
Classification: Conditionally Exempt Small Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D004
. Waste name: ARSENIC

. Waste code: D005
. Waste name: BARIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D009
. Waste name: MERCURY

. Waste code: D010
. Waste name: SELENIUM

. Waste code: D011
. Waste name: SILVER

. Waste code: D016

FAMILY DOLLAR STORE #6320 (Continued) **1017788143**

. Waste name: 2,4-D (2,4-DICHLOROPHENOXYACETIC ACID)

. Waste code: D024
. Waste name: M-CRESOL

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: U002
. Waste name: 2-PROPANONE (I) (OR) ACETONE (I)

Violation Status: No violations found

FINDS:

Registry ID: 110064382608

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.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1017788143
Registry ID: 110064382608
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110064382608

P74 **FPPF CHEMICAL COMPANY INC.** **OH SWRCY** **S120929707**
SW **117 W. TUPPER STREET** **N/A**
1/8-1/4 **BUFFALO, NY 14201**
0.225 mi.
1188 ft. **Site 3 of 3 in cluster P**

Relative:
Lower

Actual:
619 ft.

SWRCY:
Facility Type: Not reported
Owner Type: Not reported
Contact Name: Tony Tucci
Contact Phone: 7168569607
Materials Accepted: Not reported
Address line2: Not reported
Phone number2: Not reported
Fax number: 7168560750
E_mail address: fppf@buffnet.net
Vendor ID: 21
Category ID: Antifreeze Recycling Equipment Vendors
Web URL: www.fppf.com
Has coverage area: Y
Description: Not reported

75
ENE
1/8-1/4
0.241 mi.
1273 ft.

NYS CENTER FOR EXCELLENCE IN BIOINFORMATICS AND LI
701 ELLICOTT ST
BUFFALO, NY 14203

RCRA-LQG **1010327911**
NY MANIFEST **NYR000140590**

Relative:
Higher

Actual:
642 ft.

RCRA-LQG:

Date form received by agency:	02/23/2016
Facility name:	NYS CENTER FOR EXCELLENCE IN BIOINFORMATICS AND LIFE SCIENCES
Facility address:	701 ELLICOTT ST BUFFALO, NY 14203
EPA ID:	NYR000140590
Mailing address:	WINSPEAR AVE BUFFALO, NY 14215
Contact:	ANTHONY OSWALD
Contact address:	WINSPEAR AVE BUFFALO, NY 14215
Contact country:	US
Contact telephone:	716-829-3301
Contact email:	ACOSWALD@BUFFALO.EDU
EPA Region:	02
Land type:	State
Classification:	Large Quantity Generator
Description:	Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg 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; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; 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 more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name:	PEOPLE OF THE STATE OF NEW YORK
Owner/operator address:	WINSPEAR AVE BUFFALO, NY 14215
Owner/operator country:	US
Owner/operator telephone:	Not reported
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	State
Owner/Operator Type:	Owner
Owner/Op start date:	06/02/2006
Owner/Op end date:	Not reported
Owner/operator name:	UNDER LICENSE TO UNIVERSITY AT BUFFALO
Owner/operator address:	Not reported Not reported
Owner/operator country:	US
Owner/operator telephone:	Not reported
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	State

NYS CENTER FOR EXCELLENCE IN BIOINFORMATICS AND LIFE SCIENCE (Continued) **1010327911**

Owner/Operator Type: Operator
Owner/Op start date: 06/02/2006
Owner/Op end date: Not reported

Owner/operator name: STATE UNIVERSITY OF NEW YORK AT BUFFALO
Owner/operator address: WINSPEAR AVE
BUFFALO, NY 14215
Owner/operator country: US
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: State
Owner/Operator Type: Operator
Owner/Op start date: 06/20/2006
Owner/Op end date: Not reported

Owner/operator name: ANTHONY OSWALD
Owner/operator address: WINSPEAR AVE
BUFFALO, NY 14215
Owner/operator country: US
Owner/operator telephone: 716-829-3301
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: State
Owner/Operator Type: Owner
Owner/Op start date: 06/20/2006
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
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Universal Waste Summary:
Waste type: Batteries
Accumulated waste on-site: Yes
Generated waste on-site: Not reported

Waste type: Lamps
Accumulated waste on-site: Yes
Generated waste on-site: Not reported

NYS CENTER FOR EXCELLENCE IN BIOINFORMATICS AND LIFE SCIENCE (Continued) **1010327911**

Waste type: Thermostats
Accumulated waste on-site: Yes
Generated waste on-site: Not reported

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D004
. Waste name: ARSENIC

. Waste code: D019
. Waste name: CARBON TETRACHLORIDE

. Waste code: D022
. Waste name: CHLOROFORM

. Waste code: D028
. Waste name: 1,2-DICHLOROETHANE

. Waste code: D029
. Waste name: 1,1-DICHLOROETHYLENE

. Waste code: D039
. Waste name: TETRACHLOROETHYLENE

. Waste code: D040
. Waste name: TRICHLORETHYLENE

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: P087
. Waste name: OSMIUM OXIDE OSO4, (T-4)- (OR) OSMIUM TETROXIDE

Historical Generators:
Date form received by agency: 02/28/2014
Site name: NYS CENTER FOR EXCELLENCE IN BIOINFORMATICS AND LIFE SCIENCES
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D003

NYS CENTER FOR EXCELLENCE IN BIOINFORMATICS AND LIFE SCIENCE (Continued) **1010327911**

. Waste name: REACTIVE WASTE

. Waste code: D018
. Waste name: BENZENE

. Waste code: D019
. Waste name: CARBON TETRACHLORIDE

. Waste code: D022
. Waste name: CHLOROFORM

. Waste code: D028
. Waste name: 1,2-DICHLOROETHANE

. Waste code: D029
. Waste name: 1,1-DICHLOROETHYLENE

. Waste code: D038
. Waste name: PYRIDINE

. Waste code: D039
. Waste name: TETRACHLOROETHYLENE

. Waste code: LABP
. Waste name: LAB PACK

. Waste code: P087
. Waste name: OSMIUM OXIDE OSO4, (T-4)- (OR) OSMIUM TETROXIDE

. Waste code: P098
. Waste name: POTASSIUM CYANIDE (OR) POTASSIUM CYANIDE K(CN)

Date form received by agency: 01/01/2007
Site name: NYS CTR FOR EXCELLENCE IN BIOINFORMATICS
Classification: Not a generator, verified

Date form received by agency: 07/06/2006
Site name: NYS CTR FOR EXCELLENCE IN BIOINFORMATICS
Classification: Small Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D003
. Waste name: REACTIVE WASTE

. Waste code: D004
. Waste name: ARSENIC

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

NYS CENTER FOR EXCELLENCE IN BIOINFORMATICS AND LIFE SCIENCE (Continued) **1010327911**

. Waste code: D008
. Waste name: LEAD

. Waste code: D009
. Waste name: MERCURY

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: D039
. Waste name: TETRACHLOROETHYLENE

. Waste code: D040
. Waste name: TRICHLORETHYLENE

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: P028
. Waste name: BENZENE, (CHLOROMETHYL)- (OR) BENZYL CHLORIDE

. Waste code: P029
. Waste name: COPPER CYANIDE (OR) COPPER CYANIDE CU(CN)

. Waste code: U001
. Waste name: ACETALDEHYDE (I) (OR) ETHANAL (I)

. Waste code: U002

NYS CENTER FOR EXCELLENCE IN BIOINFORMATICS AND LIFE SCIENCE (Continued) **1010327911**

. Waste name: 2-PROPANONE (I) (OR) ACETONE (I)

. Waste code: U003
. Waste name: ACETONITRILE (I,T)

. Waste code: U007
. Waste name: 2-PROPENAMIDE (OR) ACRYLAMIDE

. Waste code: U009
. Waste name: 2-PROPENENITRILE (OR) ACRYLONITRILE

. Waste code: U012
. Waste name: ANILINE (I,T) (OR) BENZENAMINE (I,T)

. Waste code: U029
. Waste name: METHANE, BROMO- (OR) METHYL BROMIDE

. Waste code: U044
. Waste name: CHLOROFORM (OR) METHANE, TRICHLORO-

. Waste code: U068
. Waste name: METHANE, DIBROMO- (OR) METHYLENE BROMIDE

. Waste code: U077
. Waste name: ETHANE, 1,2-DICHLORO- (OR) ETHYLENE DICHLORIDE

. Waste code: U080
. Waste name: METHANE, DICHLORO- (OR) METHYLENE CHLORIDE

. Waste code: U108
. Waste name: 1,4-DIETHYLENEOXIDE (OR) 1,4-DIOXANE

. Waste code: U122
. Waste name: FORMALDEHYDE

. Waste code: U123
. Waste name: FORMIC ACID (C,T)

. Waste code: U136
. Waste name: ARSINIC ACID, DIMETHYL- (OR) CACODYLIC ACID

. Waste code: U140
. Waste name: 1-PROPANOL, 2-METHYL- (I,T) (OR) ISOBUTYL ALCOHOL (I,T)

. Waste code: U161
. Waste name: 4-METHYL-2-PENTANONE (I) (OR) METHYL ISOBUTYL KETONE (I) (OR) PENTANOL, 4-METHYL-

. Waste code: U169
. Waste name: BENZENE, NITRO- (OR) NITROBENZENE (I,T)

. Waste code: U188
. Waste name: PHENOL

. Waste code: U196
. Waste name: PYRIDINE

NYS CENTER FOR EXCELLENCE IN BIOINFORMATICS AND LIFE SCIENCE (Continued) **1010327911**

. Waste code: U201
. Waste name: 1,3-BENZENEDIOL (OR) RESORCINOL

. Waste code: U207
. Waste name: 1,2,4,5-TETRACHLOROBENZENE (OR) BENZENE, 1,2,4,5-TETRACHLORO-

. Waste code: U208
. Waste name: 1,1,1,2-TETRACHLOROETHANE (OR) ETHANE, 1,1,1,2-TETRACHLORO-

. Waste code: U210
. Waste name: ETHENE, TETRACHLORO- (OR) TETRACHLOROETHYLENE

. Waste code: U211
. Waste name: CARBON TETRACHLORIDE (OR) METHANE, TETRACHLORO-

. Waste code: U220
. Waste name: BENZENE, METHYL- (OR) TOLUENE

. Waste code: U226
. Waste name: ETHANE, 1,1,1-TRICHLORO- (OR) METHYL CHLOROFORM

. Waste code: U228
. Waste name: ETHENE, TRICHLORO- (OR) TRICHLOROETHYLENE

. Waste code: U246
. Waste name: CYANOGEN BROMIDE (CN)BR

. Waste code: U404
. Waste name: ETHANAMINE, N,N-DIETHYL- (OR) TRIETHYLAMINE

Date form received by agency: 07/05/2006
Site name: NYS CTR FOR EXCELLENCE IN BIOINFORMATICS
Classification: Small Quantity Generator

Biennial Reports:

Last Biennial Reporting Year: 2017

Annual Waste Handled:
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.
Amount (Lbs): 10265

Waste code: D002
Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.
Amount (Lbs): 10265

NYS CENTER FOR EXCELLENCE IN BIOINFORMATICS AND LIFE SCIENCE (Continued) **1010327911**

Waste code: D004
Waste name: ARSENIC
Amount (Lbs): 10265

Waste code: D019
Waste name: CARBON TETRACHLORIDE
Amount (Lbs): 10265

Waste code: D022
Waste name: CHLOROFORM
Amount (Lbs): 10265

Waste code: D028
Waste name: 1,2-DICHLOROETHANE
Amount (Lbs): 10265

Waste code: D029
Waste name: 1,1-DICHLOROETHYLENE
Amount (Lbs): 10265

Waste code: D039
Waste name: TETRACHLOROETHYLENE
Amount (Lbs): 10265

Waste code: D040
Waste name: TRICHLOROETHYLENE
Amount (Lbs): 10265

Waste code: F002
Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2-TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE LISTED IN F001, F004, OR F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
Amount (Lbs): 10265

Waste code: P087
Waste name: OSMIUM OXIDE OSO4, (T-4)-
Amount (Lbs): 7

Violation Status: No violations found

Evaluation Action Summary:
Evaluation date: 02/01/2017
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 12/08/2010
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported

NYS CENTER FOR EXCELLENCE IN BIOINFORMATICS AND LIFE SCIENCE (Continued) **1010327911**

Date achieved compliance: Not reported
Evaluation lead agency: State

NY MANIFEST:
Country: USA
EPA ID: NYR000140590
Facility Status: Not reported
Location Address 1: 701 ELLICOTT ST
Code: BP
Location Address 2: Not reported
Total Tanks: Not reported
Location City: BUFFALO
Location State: NY
Location Zip: 14203
Location Zip 4: Not reported

NY MANIFEST:
EPAID: NYR000140590
Mailing Name: NYS CTR FOR EXCELLENCE IN BIOINFORMATICS
Mailing Contact: TOM OSWALD
Mailing Address 1: 220 WINSPEAR AVE
Mailing Address 2: Not reported
Mailing City: BUFFALO
Mailing State: NY
Mailing Zip: 14215
Mailing Zip 4: Not reported
Mailing Country: USA
Mailing Phone: 7168293301

NY MANIFEST:
Document ID: Not reported
Manifest Status: Not reported
seq: Not reported
Year: 2017
Trans1 State ID: INR000123497
Trans2 State ID: Not reported
Generator Ship Date: 10/05/2017
Trans1 Recv Date: 10/05/2017
Trans2 Recv Date: Not reported
TSD Site Recv Date: 10/14/2017
Part A Recv Date: Not reported
Part B Recv Date: Not reported
Generator EPA ID: NYR000140590
Trans1 EPA ID: Not reported
Trans2 EPA ID: Not reported
TSDF ID 1: IND000646943
TSDF ID 2: Not reported
Manifest Tracking Number: 016652053JJK
Import Indicator: N
Export Indicator: N
Discr Quantity Indicator: N
Discr Type Indicator: N
Discr Residue Indicator: N
Discr Partial Reject Indicator: N
Discr Full Reject Indicator: N
Manifest Ref Number: Not reported
Alt Facility RCRA ID: Not reported
Alt Facility Sign Date: Not reported

NYS CENTER FOR EXCELLENCE IN BIOINFORMATICS AND LIFE SCIENCE (Continued) **1010327911**

MGMT Method Type Code:	H141
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Quantity:	3
Units:	P - Pounds
Number of Containers:	1
Container Type:	CF - Fiber or plastic boxes, cartons
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	1
Waste Code:	D022
Waste Code 1_2:	Not reported
Waste Code 1_3:	Not reported
Waste Code 1_4:	Not reported
Waste Code 1_5:	Not reported
Waste Code 1_6:	Not reported

Click this hyperlink while viewing on your computer to access
483 additional NY_MANIFEST: record(s) in the EDR Site Report.

76
SW
1/4-1/2
0.257 mi.
1355 ft.

NIAGARA MOHAWK A NATIONAL GRID CO **NY LTANKS S118953846**
325 DELAWARE AVE **NY MANIFEST N/A**
BUFFALO, NY 14202

Relative:
Lower

Actual:
618 ft.

LTANKS:

Facility ID:	9800039
Site ID:	236140
Closed Date:	1998-06-01
Spill Number:	9800039
Spill Date:	1998-04-01
Spill Cause:	Tank Overfill
Spill Source:	Commercial/Industrial
Spill Class:	B3
Cleanup Ceased:	1998-06-01
SWIS:	1502
Investigator:	MXFRANKS
Referred To:	Not reported
Reported to Dept:	1998-04-01
CID:	999
Water Affected:	Not reported
Spill Notifier:	Other
Last Inspection:	1998-04-01
Recommended Penalty:	False
Meets Standard:	True
UST Involvement:	False
Remediation Phase:	0
Date Entered In Computer:	1998-04-01
Spill Record Last Update:	2002-03-12
Spiller Name:	PETER TILLELI
Spiller Company:	BENCHMARK MANAGEMENT CORP
Spiller Address:	4053 MAPLE ROAD
Spiller County:	001

NIAGARA MOHAWK A NATIONAL GRID CO (Continued) **S118953846**

Spiller Contact:	Not reported
Spiller Phone:	Not reported
Spiller Extention:	Not reported
DEC Region:	9
DER Facility ID:	194532
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was MF 04/01/98: MNP INSP.TANKS REMOVED & EXCAVATION MOSTLY BACKFILLED. SPOKE W/ RICK CROUCH - BDC. MINOR CONTAMINATION WAS AROUND FILL PORTS, EXCAVATION SAMPLED & HE HAS PICTURES. NO RE-EXCAVATION NECESSARY. ABOUT 2 TRUCKLOADS OF SOIL ON PLASTIC. HE WILL SEND PHOTOS & SAMPLE RESULTS. 05/07/98: MNP REVIEWED BDC 5/5/98 TANK CLOSURE REPORT. SAMPLE RESULTS MEET STARS #1, PICTURES SHOW NO VISIBLE CONTAMINATION. 2 TRUCKLOADS (61.6 TONS) OF CONTAMINATED SOIL DISPOSED AT MODERN LANDFILL ON 4/7/98. ALSO, 1 DRUM OF TANK BOTTOM SLUDGE DISPOSED AT AMERICAN RECYCLERS ON 4/14/98. NO FURTHER WORK NEEDED, SENDING CLOSURE LETTER, COMPLETE. 05/19/98: MF T/C/RICK CROUCH, BUFFALO DRILLING. WANTS CLOSURE LETTER. DON'T HAVE DISPOSAL RECEIPTS; ONLY 3 SIDES OF EXCAVATION SAMPLED. WANT TO KNOW WHY. HE CLAIMED HE ONLY BID 4 SAMPLES, 1 FROM BOTTON & 1 FROM 3 SIDES. ALSO TOOK OVER SPILL FROM MNP. 06/01/98: MF RECEIVED SOIL DISPOSAL RECEIPTS, 61.7 TONS DISPOSED OF. CLOSURE LETTER SENT. NO FURTHER ACTION NECESSARY. NOTE ONLY THREE SIDE WALLS SAMPLED."
Remarks:	"contractor found petroleum contamination while removing 2-5k ust's c0ntaminated soil around fillport being staged on plastic"

All Materials:

Site ID:	236140
Operable Unit ID:	1060553
Operable Unit:	01
Material ID:	325597
Material Code:	0001A
Material Name:	#2 fuel oil
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	.00
Units:	G
Recovered:	.00
Oxygenate:	Not reported

NY MANIFEST:

Country:	USA
EPA ID:	NYP000967471
Facility Status:	Not reported
Location Address 1:	325 DELAWARE AVE
Code:	BP
Location Address 2:	Not reported
Total Tanks:	Not reported
Location City:	BUFFALO
Location State:	NY
Location Zip:	14202
Location Zip 4:	Not reported

NY MANIFEST:

EPAID:	NYP000967471
Mailing Name:	NIAGARA MOHAWK A NATIONAL GRID CO
Mailing Contact:	M MORROW
Mailing Address 1:	144 KENSINGTON AVE

NIAGARA MOHAWK A NATIONAL GRID CO (Continued) **S118953846**

Mailing Address 2:	Not reported
Mailing City:	BUFFALO
Mailing State:	NY
Mailing Zip:	14214
Mailing Zip 4:	Not reported
Mailing Country:	USA
Mailing Phone:	7168317428

NY MANIFEST:

Document ID:	Not reported
Manifest Status:	Not reported
seq:	Not reported
Year:	2011
Trans1 State ID:	NYD986980753
Trans2 State ID:	Not reported
Generator Ship Date:	07/12/2011
Trans1 Recv Date:	07/12/2011
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	07/13/2011
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported
Generator EPA ID:	NYP000967471
Trans1 EPA ID:	Not reported
Trans2 EPA ID:	Not reported
TSDF ID 1:	NYD049836679
TSDF ID 2:	Not reported
Manifest Tracking Number:	001055657JJK
Import Indicator:	N
Export Indicator:	N
Discr Quantity Indicator:	N
Discr Type Indicator:	N
Discr Residue Indicator:	N
Discr Partial Reject Indicator:	N
Discr Full Reject Indicator:	N
Manifest Ref Number:	Not reported
Alt Facility RCRA ID:	Not reported
Alt Facility Sign Date:	Not reported
MGMT Method Type Code:	H132
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Quantity:	273.0
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	1.0
Container Type:	DM - Metal drums, barrels
Handling Method:	L Landfill.
Specific Gravity:	1.0
Waste Code:	B007
Waste Code 1_2:	Not reported
Waste Code 1_3:	Not reported
Waste Code 1_4:	Not reported
Waste Code 1_5:	Not reported
Waste Code 1_6:	Not reported

NIAGARA MOHAWK A NATIONAL GRID CO (Continued) **S118953846**

Click this hyperlink while viewing on your computer to access
1 additional NY_MANIFEST: record(s) in the EDR Site Report.

R77 **BENDERSON DEVELOPMENT** **NY LTANKS** **S100119790**
NNW **584 DELAWARE AVENUE** **N/A**
1/4-1/2 **BUFFALO, NY**
0.273 mi.
1442 ft. **Site 1 of 2 in cluster R**

Relative: **Higher**
Actual: **647 ft.**

LTANKS:

Facility ID:	8808966
Site ID:	272336
Closed Date:	1989-11-10
Spill Number:	8808966
Spill Date:	1989-02-16
Spill Cause:	Tank Failure
Spill Source:	Commercial/Industrial
Spill Class:	Not reported
Cleanup Ceased:	1989-11-10
SWIS:	1502
Investigator:	LEARY
Referred To:	Not reported
Reported to Dept:	1989-02-16
CID:	Not reported
Water Affected:	Not reported
Spill Notifier:	Fire Department
Last Inspection:	1989-11-10
Recommended Penalty:	False
Meets Standard:	True
UST Involvement:	True
Remediation Phase:	0
Date Entered In Computer:	1989-02-23
Spill Record Last Update:	1989-12-07
Spiller Name:	Not reported
Spiller Company:	BENDERSON DEVELOP. CORP.
Spiller Address:	570 DELAWARE AVENUE
Spiller County:	001
Spiller Contact:	Not reported
Spiller Phone:	Not reported
Spiller Extention:	Not reported
DEC Region:	9
DER Facility ID:	221660
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was RNL 02/23/89: TANK TO BE TESTED BY OWNER, TANK OPERATED BY DEC R-9. 03/01/89: RNL SITE INSP. 03/01/89, FUMES NOTED ONLY IN SUMP PIT, FAN REMOVED, NO MONITORING WELLS. 03/09/89: RNL LETTER 03/03/89, REQUEST MW'S BY 03/07/89; RNL TELECON 03/08/89, NO ANSWER; RNL TELECON 03/09/89, NO ANSWER. 05/17/89: RNL CHECKED MW 04/05/89 AND 05/17/89, BOTH TIMES WELL WAS DRY, NO GASOLINE FUMES NOTED. 11/10/89: RNL CHECKED MW 08/15/89 AND 11/10/89, BOTH TIMES WELL WAS DRY, NO GASOLINE FUMES NOTED, CLOSEOUT SITE, NOTHING IN MW SINCE INSTALLATION. "
Remarks:	"FUMES DETECTED IN ELEVATOR SHAFT FROM LEAKING BENDERSON TANK"

All Materials:

Site ID:	272336
Operable Unit ID:	925281

BENDERSON DEVELOPMENT (Continued) **S100119790**

Operable Unit:	01
Material ID:	453722
Material Code:	0009
Material Name:	gasoline
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	.00
Units:	G
Recovered:	.00
Oxygenate:	Not reported

78
WSW
1/4-1/2
0.293 mi.
1547 ft.

BUFFALO SCHOOL # 76 **NY LTANKS** **S110490866**
300 SOUTH ELMWOOD AVE **N/A**
BUFFALO, NY

Relative:
Lower

Actual:
614 ft.

LTANKS:

Facility ID:	0111280
Site ID:	66723
Closed Date:	2002-05-30
Spill Number:	0111280
Spill Date:	2002-02-27
Spill Cause:	Tank Test Failure
Spill Source:	Institutional, Educational, Gov., Other
Spill Class:	B4
Cleanup Ceased:	Not reported
SWIS:	1502
Investigator:	BFGRABER
Referred To:	Not reported
Reported to Dept:	2002-02-27
CID:	396
Water Affected:	Not reported
Spill Notifier:	Tank Tester
Last Inspection:	Not reported
Recommended Penalty:	False
Meets Standard:	True
UST Involvement:	False
Remediation Phase:	0
Date Entered In Computer:	2002-02-27
Spill Record Last Update:	2002-08-06
Spiller Name:	Not reported
Spiller Company:	SAME
Spiller Address:	Not reported
Spiller County:	999
Spiller Contact:	BILL MOSS
Spiller Phone:	(716) 851-3028
Spiller Extention:	Not reported
DEC Region:	9
DER Facility ID:	63861
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was BG 03/04/02: BFG TELECON BILL MOSS (SCHOOL 76 ASSISTANT ENGINEER) AND HE SAID THE SCHOOL INTENDS TO KEEP USING THE TANK. HE SAID THAT THE TANK WILL BE TESTED SEPERATELY WITH THE PIPING UNHOOKED AND TANK TESTED SEPERATELY. IF THE TANK PASSES, THE PIPING WILL BE REPLACED. NOTE: DAVID MENDEL IS ENVIRONMENTAL SERVICE GROUP'S (ESG) CONTACT @ 716-695-6720. 03/04/02: BFG SENT BILL MOSS A LETTER EXPLAINING THE

BUFFALO SCHOOL # 76 (Continued) **S110490866**

SCHOOLS' OPTIONS. 04/22/02: BFG TELECON BILL MOSS AND WAS TOLD ESG DID TANK TESTING INCORRECTLY AND WILL BE RETESTING TANK ASAP. 05/28/02: REC'D TANK RETEST REPORT PERFORMED ON 05/22/02. TANK AND SYSTEM TIGHTNESS RETEST PASSED. ******** SPILL CLOSED - NO FURTHER WORK REQUIRED **********"

Remarks: "believes the leak is in the piping. tank is not being used..they now use natural gas."

All TTF:

Facility ID:	0111280
Spill Number:	0111280
Spill Tank Test:	1526904
Site ID:	66723
Tank Number:	Not reported
Tank Size:	12000
Material:	0001
EPA UST:	Not reported
UST:	Not reported
Cause:	Not reported
Source:	Not reported
Test Method:	03
Test Method 2:	Horner EZ Check I or II
Leak Rate:	.00
Gross Fail:	Not reported
Modified By:	Spills
Last Modified Date:	Not reported

All Materials:

Site ID:	66723
Operable Unit ID:	848343
Operable Unit:	01
Material ID:	528868
Material Code:	0001A
Material Name:	#2 fuel oil
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	.00
Units:	G
Recovered:	.00
Oxygenate:	Not reported

R79 **NYSDEC** **NY LTANKS** **1000185749**
North **600 DELAWARE AVE** **NY Spills** **NYD981178650**
1/4-1/2 **BUFFALO, NY 14202** **RCRA NonGen / NLR**
0.303 mi. **FINDS**
1602 ft. **Site 2 of 2 in cluster R** **ECHO**
NY MANIFEST

Relative:
Higher

Actual:
652 ft.

LTANKS:

Facility ID:	9404468
Site ID:	169893
Closed Date:	1994-08-15
Spill Number:	9404468
Spill Date:	1994-06-29
Spill Cause:	Tank Test Failure
Spill Source:	Commercial/Industrial
Spill Class:	C4

NYSDEC (Continued) **1000185749**

Cleanup Ceased:	1994-08-15
SWIS:	1502
Investigator:	RMCROSSE
Referred To:	Not reported
Reported to Dept:	1994-06-29
CID:	Not reported
Water Affected:	Not reported
Spill Notifier:	Tank Tester
Last Inspection:	Not reported
Recommended Penalty:	False
Meets Standard:	True
UST Involvement:	True
Remediation Phase:	0
Date Entered In Computer:	1994-06-30
Spill Record Last Update:	2002-03-20
Spiller Name:	Not reported
Spiller Company:	BENDERSON DELEVELOPMENT
Spiller Address:	570 DELAWARE AVENUE
Spiller County:	001
Spiller Contact:	Not reported
Spiller Phone:	Not reported
Spiller Extention:	Not reported
DEC Region:	9
DER Facility ID:	142956
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was RMC 06/30/94: RMC/LETTER RESPONSE DUE 7/30/94. 07/12/94: SAC BRUCE NATALIZIA BENDERSON/PHONE BENDERSON IS GOING TO RETEST, RESULTS DUE 8/18/94. 08/15/94: RMC/RECEIVED RETEST, PASSED, CLOSE OUT. "
Remarks:	"LINES PASSED, TANK FAILED"

All TTF:

Facility ID:	9404468
Spill Number:	9404468
Spill Tank Test:	1542915
Site ID:	169893
Tank Number:	Not reported
Tank Size:	0
Material:	0008
EPA UST:	Not reported
UST:	Not reported
Cause:	Not reported
Source:	Not reported
Test Method:	00
Test Method 2:	Unknown
Leak Rate:	.00
Gross Fail:	Not reported
Modified By:	Spills
Last Modified Date:	Not reported

All Materials:

Site ID:	169893
Operable Unit ID:	1001539
Operable Unit:	01
Material ID:	553940
Material Code:	0008
Material Name:	diesel
Case No.:	Not reported

NYSDEC (Continued) **1000185749**

Material FA:	Petroleum
Quantity:	.00
Units:	G
Recovered:	.00
Oxygenate:	Not reported

Facility ID:	9503691
Site ID:	169894
Closed Date:	1998-05-07
Spill Number:	9503691
Spill Date:	1995-06-01
Spill Cause:	Tank Failure
Spill Source:	Commercial/Industrial
Spill Class:	B3
Cleanup Ceased:	Not reported
SWIS:	1502
Investigator:	RMCROSSE
Referred To:	Not reported
Reported to Dept:	1995-06-23
CID:	Not reported
Water Affected:	Not reported
Spill Notifier:	Other
Last Inspection:	1998-03-04
Recommended Penalty:	False
Meets Standard:	True
UST Involvement:	True
Remediation Phase:	0
Date Entered In Computer:	1995-06-30
Spill Record Last Update:	2002-03-20
Spiller Name:	JOHN GOULD
Spiller Company:	BENDERSON DEVELOPMENT
Spiller Address:	570 DELAWARE AVENUE
Spiller County:	001
Spiller Contact:	Not reported
Spiller Phone:	Not reported
Spiller Extention:	Not reported
DEC Region:	9
DER Facility ID:	142956
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was RMC 07/05/95: RMC/FILE, SENT LETTER REQUESTING SITE ASSESMENT , DUE 8/30/95. 09/20/95: RMC/FILE, SENT LETTER REQUESTING SITE ASSESMENT , DUE 8/30/95, REVISED TO 9/30/95. 11/2/95 RMC/FILE, NO RESPONSE LETTER, RESPONSE DUE 11/15/95 1/4/96 RMC/LAURIE CIRCELLI/PHONE, SITE CONTACT SHOULD BE JOHN GOULD, BENDERSON HAS HIRED BUFFALO DRILLING TO PREPARE A SITE ASSESSMENT, DUE 2/28/96 02/22/96 RMC/RECEIVED REPORT, RICK CROUCH/PHONE RNL/MEETING, REPORT SHOWS NO CONTAMINATION OUTSIDE TANK PIT, LEVELS IN HIGH PPM IN TANK PIT ITSELF BASED ON B AND D SAMPLING, TANK PIT REQUIRES FURTHER SITE ASSESSEMENT AND MAYBE REMEDIATION, CROUCH TO TALK WITH BENDERSON AND WORK OUT NEXT STEP, CALL BACK DUE 3/15/96 5/1/96 RMC/FILE, CONTRACTOR ADVISED THAT REPORT WILL BE SUBMITTED BY 6/1/96 07/05/96 RMC/LORI CIRCELLI/PHONE, RMC AGAIN ADVISED THAT FURTHER WORK IS REQUIRED, TO CALL BACK,CALL DUE 7/7/96 08/26/96 RMC/FILE, LETTER, RESPONSE DUE 9/6/96 09/09/96 RMC/RICK CROUCH, BUFFALO DRILLING/PHONE, TO PROPOSE VAC. EXTRACTION POINTS TO CLIENT AND GET BACK TO DEC, CALL DUE 9/15/96 10/21/96 RMC/RICK CROUCH/PHONE, WENT OVER PROPOSAL TO INSTALL SVE, RMC ADVISED

NYSDEC (Continued) **1000185749**

THAT NEED TO HAVE SAMPLING IN PLAN ADEQUATE FOR CLOSURE DETERMINATION, TO DO BASELINE BORINGS IN TANK PIT AND RESUBMIT PLAN WITH MINOR CHANGES, DUE 11/30/96 12/31/96 RMC/RICK CROUCH/PHONE, SENT REWORKED PLAN TO BENDERSON, NOTHING HAS YET TO BE DECIDED BECAUSE GOULD LEFT COMPANY, CROUCH TO GET PLAN TO ME BY 1/30/97 02/25/97 RMC/FILE, LEFT MESSAGE FOR CROUCH TO CALL, CALL DUE 3/1/97 02/28/97 RMC/FILE, LEFT MESSAGE FOR TOM WUERCH TO CALL, CALL DUE 3/3/97 03/20/97 RMC/FILE, LEFT MESSAGE FOR RP TO CALL. CALL DUE 4/1/97 03/20/96 RMC/IVAN LOZINA, 878-9319/PHONE, RMC TO HAVE MEETING TO DISCUSS SITE APPROACH AFTER 4/8/96 06/03/97 RMC/FILE, LEFT MESSAGE FOR LOZINA TO CALL, CALL DUE 6/10/97 06/26/97 RMC/FILE, LEFT ANOTHER MESSAGE CALL DUE 6/27 07/21/97 RMC/FILE, LEFT ANOTHER MESSAGE CALL BACK 7/28 12/22/97 RMC/FILE, RETURNED LOZINAS CALL 12/24/97 RMC/LOZINA/PHONE, TO MEET 1/8/98 03/04/98 RMC/IVAN LOZINA/SITE, WENT OVER PREVIOUS WORK, SITE ASSESSMENT SHOWED CONTAMINATION CONFINED TO TANK PIT AREA, RMC REQUESTED THE TANK PIT BE RESAMPLED, FOR TCLP STARS TABLE 2, DUE 5/1/98 05/07/98 RMC/FILE, RECEIVED SUPPLEMENTAL REPORT FROM NWI, WORK REQUESTED AS ORIGINAL POST EXCAVATION SAMPLE BY B AND D IN 1995 PRIOR TO INSTALLING A NEW UST SHOWED EXCEEDANCES IN STARS, RMC REVIEWED FILE, NO PROBLEMS NOTED IN BUFFALO DRILLINGS INVESTIGATION OUTSIDE THE UST TANK PIT, NO EXCEEDANCES IN LATEST WORK BY NWI, NO ACTION REQUIRED, CLOSE OUT "

Remarks: "CONTAMINATION FOUND IN CHEMICAL ANALYSIS"

All Materials:

Site ID:	169894
Operable Unit ID:	1018150
Operable Unit:	01
Material ID:	365199
Material Code:	0009
Material Name:	gasoline
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	.00
Units:	G
Recovered:	.00
Oxygenate:	Not reported

SPILLS:

Facility ID:	8910055
Facility Type:	ER
Spill Number:	8910055
DER Facility ID:	142956
Site ID:	169889
DEC Region:	9
Closed Date:	1990-03-07
Spill Cause:	Equipment Failure
Spill Class:	Not reported
SWIS:	1502
Spill Date:	1990-01-01
Investigator:	MXFRANKS
Referred To:	Not reported
Reported to Dept:	1990-01-02
CID:	Not reported
Water Affected:	Not reported
Spill Source:	Institutional, Educational, Gov., Other

NYSDEC (Continued) **1000185749**

Spill Notifier:	DEC
Cleanup Ceased:	1990-03-07
Cleanup Meets Std:	True
Last Inspection:	1990-02-28
Recommended Penalty:	False
UST Trust:	True
Remediation Phase:	0
Date Entered In Computer:	1990-01-19
Spill Record Last Update:	1990-03-08
Spiller Name:	Not reported
Spiller Company:	BENDERSON DEVELOPMENT
Spiller Address:	570 DELAWARE AVENUE
Spiller Company:	001
Contact Name:	Not reported
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was MF 01/19/90: MF TELECON BENDERSON, TO RETURN CALL. 02/28/90: MF 2/2/90 TELECON RENO (BENDERSON), HE CLAIMED HE WILL SEND ME REPAIR INVOICE. 02/28/90: MF 2/28/90 INSPECTED DISPENSOR, NEW UNIT IN PLACE, NO LEAKS NOTICED. NO REPORT FROM BENDERSON. 03/07/90: MF RECEIVED REPAIR BILL FROM BENDERSON. NO FUTHER WORK NECESSARY ON THIS SPILL. "
Remarks:	"GASOLINE DISPENSER LEAKS WHEN UNDER PRESSURE. PADS IN PLACE."

All Materials:

Site ID:	169889
Operable Unit ID:	937070
Operable Unit:	01
Material ID:	443181
Material Code:	0009
Material Name:	gasoline
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	5.00
Units:	G
Recovered:	.00
Oxygenate:	Not reported

Facility ID:	8912037
Facility Type:	ER
Spill Number:	8912037
DER Facility ID:	142956
Site ID:	169890
DEC Region:	9
Closed Date:	1990-03-20
Spill Cause:	Human Error
Spill Class:	Not reported
SWIS:	1502
Spill Date:	1990-03-20
Investigator:	ROSS
Referred To:	Not reported
Reported to Dept:	1990-03-20
CID:	Not reported
Water Affected:	Not reported
Spill Source:	Institutional, Educational, Gov., Other
Spill Notifier:	Responsible Party
Cleanup Ceased:	1990-03-20
Cleanup Meets Std:	True
Last Inspection:	1990-03-20

NYSDEC (Continued) **1000185749**

Recommended Penalty:	False
UST Trust:	True
Remediation Phase:	0
Date Entered In Computer:	1990-03-20
Spill Record Last Update:	1990-03-26
Spiller Name:	Not reported
Spiller Company:	NYSDEC
Spiller Address:	600 DELAWARE AVENUE
Spiller Company:	001
Contact Name:	Not reported
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was LQR 03/20/90: LQR AND CAF SPILL UNIT SPREAD SPEEDY DRY AND PADS,MECHANIC CLEANED UP. "
Remarks:	"OVER FILL TANK ON VEHICLE"

All Materials:

Site ID:	169890
Operable Unit ID:	937794
Operable Unit:	01
Material ID:	441518
Material Code:	0009
Material Name:	gasoline
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	4.00
Units:	G
Recovered:	4.00
Oxygenate:	Not reported

Facility ID:	9002580
Facility Type:	ER
Spill Number:	9002580
DER Facility ID:	142956
Site ID:	169891
DEC Region:	9
Closed Date:	1990-06-06
Spill Cause:	Equipment Failure
Spill Class:	Not reported
SWIS:	1502
Spill Date:	1990-06-05
Investigator:	FIX
Referred To:	Not reported
Reported to Dept:	1990-06-05
CID:	Not reported
Water Affected:	Not reported
Spill Source:	Institutional, Educational, Gov., Other
Spill Notifier:	Responsible Party
Cleanup Ceased:	1990-06-06
Cleanup Meets Std:	True
Last Inspection:	1990-06-06
Recommended Penalty:	False
UST Trust:	False
Remediation Phase:	0
Date Entered In Computer:	1990-06-06
Spill Record Last Update:	1990-06-08
Spiller Name:	Not reported
Spiller Company:	MODERN DISPOSAL

NYSDEC (Continued) **1000185749**

Spiller Address:	Not reported
Spiller Company:	999
Contact Name:	Not reported
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was CAF / / : CAF SITE INSPECTION-REASONABLE CLEANUP,SOME SPEEDY DRY STILL ON SITENO FURTHER ACTION PLANNED,. "
Remarks:	"MODERN DISPOSAL WILL SEND CREW TO CLEAN UO,BENDERSON CREWS STARTED CLEANUP BY APPLYING FLOOR DRY."

All Materials:

Site ID:	169891
Operable Unit ID:	940597
Operable Unit:	01
Material ID:	437321
Material Code:	0016A
Material Name:	non PCB oil
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	2.00
Units:	G
Recovered:	2.00
Oxygenate:	Not reported

Facility ID:	9004957
Facility Type:	ER
Spill Number:	9004957
DER Facility ID:	142956
Site ID:	169892
DEC Region:	9
Closed Date:	1990-08-06
Spill Cause:	Human Error
Spill Class:	Not reported
SWIS:	1502
Spill Date:	1990-08-03
Investigator:	PRINGLE
Referred To:	Not reported
Reported to Dept:	1990-08-03
CID:	Not reported
Water Affected:	Not reported
Spill Source:	Institutional, Educational, Gov., Other
Spill Notifier:	Citizen
Cleanup Ceased:	1990-08-06
Cleanup Meets Std:	True
Last Inspection:	1990-08-06
Recommended Penalty:	False
UST Trust:	False
Remediation Phase:	0
Date Entered In Computer:	1990-08-07
Spill Record Last Update:	1990-12-04
Spiller Name:	Not reported
Spiller Company:	NYSDEC
Spiller Address:	600 DELAWARE AVENUE
Spiller Company:	001
Contact Name:	Not reported
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was MNP 08/06/90: 8/6/90 MNP INSP. SPEEDY DRY PICKED UP & DISPOSED, I PUT GASOLINE SOAKED SORBENT PADS IN DUMPSTER. NO FURTHER ACTION NEEDED,

NYSDEC (Continued) **1000185749**

COMPLETE. "
Remarks: "NOZZLE DID NOT SHUT OFF WHILE NYSDEC EMPLOYEE WAS FUELING STATE VEHICLE"

All Materials:
Site ID: 169892
Operable Unit ID: 942608
Operable Unit: 01
Material ID: 436030
Material Code: 0009
Material Name: gasoline
Case No.: Not reported
Material FA: Petroleum
Quantity: 15.00
Units: G
Recovered: 15.00
Oxygenate: Not reported

Facility ID: 9509971
Facility Type: ER
Spill Number: 9509971
DER Facility ID: 142956
Site ID: 169895
DEC Region: 9
Closed Date: 1995-11-13
Spill Cause: Human Error
Spill Class: C5
SWIS: 1502
Spill Date: 1995-11-07
Investigator: COOKE
Referred To: Not reported
Reported to Dept: 1995-11-10
CID: 312
Water Affected: Not reported
Spill Source: Commercial/Industrial
Spill Notifier: Health Department
Cleanup Ceased: 1995-11-13
Cleanup Meets Std: True
Last Inspection: Not reported
Recommended Penalty: False
UST Trust: False
Remediation Phase: 0
Date Entered In Computer: 1995-11-10
Spill Record Last Update: 2002-03-20
Spiller Name: Not reported
Spiller Company: LASALLE AMBULANCE
Spiller Address: 600 DELAWARE AVENUE
Spiller Company: 001
Contact Name: Not reported
DEC Memo: "Prior to Sept, 2004 data translation this spill Lead_DEC Field was
JDC 11/13/95: JDC TELCON W/ DAVE COLE, LASALLE - HEAVY RAIN WASHED SPILLED GASOLINE FROM OVERFILL SPILL TO PARKING LOT AT DISPENSER, CLAY SORB USED, NO RECOVERY POSSIBLE. ADVISED DAVE COLE TO CONTACT DEC ON FUTURE SPILLS. NO FURTHER ACTION REQUIRED."
Remarks: "NOZZLE FELL FEOM VEHICLE - PRODUCT HOSED DOWN INTO SEWER BY R.P."

All Materials:

NYSDEC (Continued) **1000185749**

Site ID:	169895
Operable Unit ID:	1020400
Operable Unit:	01
Material ID:	360900
Material Code:	0009
Material Name:	gasoline
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	10.00
Units:	G
Recovered:	.00
Oxygenate:	Not reported

Facility ID:	8608020
Facility Type:	ER
Spill Number:	8608020
DER Facility ID:	142956
Site ID:	169887
DEC Region:	9
Closed Date:	1987-03-26
Spill Cause:	Equipment Failure
Spill Class:	Not reported
SWIS:	1502
Spill Date:	1987-03-26
Investigator:	COOKE
Referred To:	Not reported
Reported to Dept:	1987-03-03
CID:	Not reported
Water Affected:	Not reported
Spill Source:	Passenger Vehicle
Spill Notifier:	Affected Persons
Cleanup Ceased:	1987-03-26
Cleanup Meets Std:	True
Last Inspection:	1987-03-26
Recommended Penalty:	False
UST Trust:	False
Remediation Phase:	0
Date Entered In Computer:	1987-03-31
Spill Record Last Update:	1987-04-06
Spiller Name:	Not reported
Spiller Company:	NYS DEPT. OF ENV. CONS.
Spiller Address:	600 DELAWARE AVENUE
Spiller Company:	001
Contact Name:	Not reported
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was JDC / / : JDC SITE INSP. 03/26/87, CLEANED UP BY DEC SPILL UNIT. "
Remarks:	""

All Materials:

Site ID:	169887
Operable Unit ID:	904596
Operable Unit:	01
Material ID:	473508
Material Code:	0009
Material Name:	gasoline
Case No.:	Not reported
Material FA:	Petroleum

NYSDEC (Continued) **1000185749**

Quantity:	5.00
Units:	G
Recovered:	5.00
Oxygenate:	Not reported
Facility ID:	8900461
Facility Type:	ER
Spill Number:	8900461
DER Facility ID:	142956
Site ID:	169888
DEC Region:	9
Closed Date:	1991-07-03
Spill Cause:	Human Error
Spill Class:	Not reported
SWIS:	1502
Spill Date:	1989-04-14
Investigator:	LEARY
Referred To:	Not reported
Reported to Dept:	1989-04-17
CID:	Not reported
Water Affected:	Not reported
Spill Source:	Institutional, Educational, Gov., Other
Spill Notifier:	Affected Persons
Cleanup Ceased:	1991-07-03
Cleanup Meets Std:	True
Last Inspection:	1989-04-17
Recommended Penalty:	False
UST Trust:	False
Remediation Phase:	0
Date Entered In Computer:	1989-04-17
Spill Record Last Update:	1991-07-03
Spiller Name:	Not reported
Spiller Company:	NYSDEC
Spiller Address:	DELAWARE AVENUE
Spiller Company:	001
Contact Name:	Not reported
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was RNL 04/17/89: RNL SITE INSP. 04/17/89 WITH R. MCCABE AND K. KISH, CLEANUP REQUIRED, RNL TO CONTACT BENDERSON FOR CLEANUP, J. MCMAHON AND P. BUECHI ALSON NOTIFIED. 04/17/89: 04/17/89, P. BUECHI STATED BENDERSON REFUSED TO CLEANUP AS THEY STATED THEY WERE NOT THE SPILLER, RNL CONTACTED E&E TO CLEANUP ROOM, THEY WILL DO SO 04/17/89, PM. 04/17/89: RNL SITE INSP. 04/17/89, E&E CLEANED UP ROOM OF FREE MURCURY, AIR MONITORING TO BE DONE 04/18/89. 04/18/89: E&E SAMPLED AIR IN ROOM, LEVELS OF MUNCURY WERE FOUND, VENTILATION DONE. 04/24/89: E&E AGAIN SAMPLED AIR IN ROOM, VIRTUALLY ALL READINGS WERE ZERO, CONTINUE TO VENTILATE. 06/01/89: RNL DISCUSSION WITH LESTER ABOUT POP DISPOSAL AND METHOD OF PAYMENT FOR HIS DAMAGES, TALKED TO E&E, S&HW, AND ADMINSTRATION, NO ANSWER TO DATE. 08/13/90: RNL DISCUSSION 08/13/90 WITH LESTER ABOUT POP DISPOSAL AND METHOD OF PAYMENT FOR HIS DAMAGES, STILL NO ANSWER TO DATE. 01/29/91: RNL DISCUSSION 01/29/91 WITH LESTER ABOUT POP DISPOSAL AND METHOD OF PAYMENT FOR HIS DAMAGES, HE WILL CHECK WITH ALBANY, NO PAYMENT TO DATE. 05/16/91: RNL REVIEW OF FILE, NO FURTHER SPILL UNIT INVOLVEMENT, LESTER NOT PURSUEING HIS COST RECOVERY, CLOSEOUT. "
Remarks:	"MERCURY SPILL FROM MANOMETER FOUND IN AIR ROOM"

NYSDEC (Continued) **1000185749**

All Materials:
Site ID: 169888
Operable Unit ID: 926868
Operable Unit: 01
Material ID: 451795
Material Code: 0031A
Material Name: mercury
Case No.: 07439976
Material FA: Hazardous Material
Quantity: 1.00
Units: L
Recovered: 1.00
Oxygenate: Not reported

RCRA NonGen / NLR:
Date form received by agency: 01/01/2007
Facility name: NYSDEC
Facility address: 600 DELAWARE AVE
BUFFALO, NY 14202-1002
EPA ID: NYD981178650
Mailing address: DELAWARE AVE
BUFFALO, NY 14202
Contact: Not reported
Contact address: DELAWARE AVE
BUFFALO, NY 14202
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: NYSDEC
Owner/operator address: NOT REQUIRED
NOT REQUIRED, WY 99999
Owner/operator country: US
Owner/operator telephone: 212-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NYSDEC
Owner/operator address: NOT REQUIRED
NOT REQUIRED, WY 99999
Owner/operator country: US
Owner/operator telephone: 212-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private

NYSDEC (Continued) **1000185749**

Owner/Operator Type: Owner
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
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 01/01/2006
Site name: NYSDEC
Classification: Not a generator, verified

Date form received by agency: 07/08/1999
Site name: NYSDEC
Classification: Not a generator, verified

Date form received by agency: 12/23/1985
Site name: NYSDEC
Classification: Small Quantity Generator

. Waste code: D000
. Waste name: Not Defined

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D003
. Waste name: REACTIVE WASTE

. Waste code: U129
. Waste name: CYCLOHEXANE, 1,2,3,4,5,6-HEXACHLORO-, (1ALPHA, 2ALPHA, 3BETA, 4ALPHA, 5ALPHA, 6BETA)- (OR) LINDANE

. Waste code: U130
. Waste name: 1,3-CYCLOPENTADIENE, 1,2,3,4,5,5-HEXACHLORO- (OR) HEXACHLOROCYCLOPENTADIENE

. Waste code: U196
. Waste name: PYRIDINE

NYSDEC (Continued) **1000185749**

Violation Status: No violations found

FINDS:

Registry ID: 110004401861

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.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:	1000185749
Registry ID:	110004401861
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110004401861

NY MANIFEST:

Country:	USA
EPA ID:	NYP000785113
Facility Status:	Not reported
Location Address 1:	600 DELAWARE AVE
Code:	BP
Location Address 2:	Not reported
Total Tanks:	Not reported
Location City:	BUFFALO
Location State:	NY
Location Zip:	14202
Location Zip 4:	Not reported

NY MANIFEST:

EPAID:	NYP000785113
Mailing Name:	NYSDEC
Mailing Contact:	ROBERT C WOZNIAK
Mailing Address 1:	600 DELAWARE AVENUE
Mailing Address 2:	Not reported
Mailing City:	BUFFALO
Mailing State:	NY
Mailing Zip:	14202
Mailing Zip 4:	Not reported
Mailing Country:	USA
Mailing Phone:	7168474585

NY MANIFEST:

Document ID:	NYO1414818
Manifest Status:	C
seq:	Not reported
Year:	1984
Trans1 State ID:	9A-214
Trans2 State ID:	Not reported
Generator Ship Date:	07/09/1984

NYSDEC (Continued) **1000185749**

Trans1 Recv Date:	07/09/1984
Trans2 Recv Date:	/ /
TSD Site Recv Date:	07/09/1984
Part A Recv Date:	07/16/1984
Part B Recv Date:	07/16/1984
Generator EPA ID:	NYP000785113
Trans1 EPA ID:	NYD980592653
Trans2 EPA ID:	Not reported
TSDF ID 1:	NYD980592653
TSDF ID 2:	Not reported
Manifest Tracking Number:	Not reported
Import Indicator:	Not reported
Export Indicator:	Not reported
Discr Quantity Indicator:	Not reported
Discr Type Indicator:	Not reported
Discr Residue Indicator:	Not reported
Discr Partial Reject Indicator:	Not reported
Discr Full Reject Indicator:	Not reported
Manifest Ref Number:	Not reported
Alt Facility RCRA ID:	Not reported
Alt Facility Sign Date:	Not reported
MGMT Method Type Code:	Not reported
Waste Code:	D001 - NON-LISTED IGNITABLE WASTES
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Quantity:	00250
Units:	G - Gallons (liquids only)* (8.3 pounds)
Number of Containers:	005
Container Type:	DM - Metal drums, barrels
Handling Method:	R Material recovery of more than 75 percent of the total material.
Specific Gravity:	100

Click this hyperlink while viewing on your computer to access additional NY_MANIFEST: detail in the EDR Site Report.

Country:	USA
EPA ID:	NYP003601416
Facility Status:	Not reported
Location Address 1:	600 DELAWARE AVENUE
Code:	BP
Location Address 2:	Not reported
Total Tanks:	Not reported
Location City:	BUFFALO
Location State:	NY
Location Zip:	14202
Location Zip 4:	Not reported

NY MANIFEST:

EPAID:	NYP003601416
Mailing Name:	NYSDEC
Mailing Contact:	KEVIN N. GLASER
Mailing Address 1:	600 DELAWARE AVENUE
Mailing Address 2:	Not reported
Mailing City:	BUFFALO

NYSDEC (Continued) **1000185749**

Mailing State:	NY
Mailing Zip:	14202
Mailing Zip 4:	Not reported
Mailing Country:	USA
Mailing Phone:	7168474585

NY MANIFEST:

Document ID:	NYB5185233
Manifest Status:	C
seq:	Not reported
Year:	1992
Trans1 State ID:	CV9688
Trans2 State ID:	Not reported
Generator Ship Date:	06/12/1992
Trans1 Recv Date:	06/12/1992
Trans2 Recv Date:	/ /
TSD Site Recv Date:	06/12/1992
Part A Recv Date:	06/25/1992
Part B Recv Date:	06/23/1992
Generator EPA ID:	NYP003601416
Trans1 EPA ID:	NYD986908085
Trans2 EPA ID:	Not reported
TSDF ID 1:	NYD082785429
TSDF ID 2:	Not reported
Manifest Tracking Number:	Not reported
Import Indicator:	Not reported
Export Indicator:	Not reported
Discr Quantity Indicator:	Not reported
Discr Type Indicator:	Not reported
Discr Residue Indicator:	Not reported
Discr Partial Reject Indicator:	Not reported
Discr Full Reject Indicator:	Not reported
Manifest Ref Number:	Not reported
Alt Facility RCRA ID:	Not reported
Alt Facility Sign Date:	Not reported
MGMT Method Type Code:	Not reported
Waste Code:	D001 - NON-LISTED IGNITABLE WASTES
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Quantity:	00100
Units:	G - Gallons (liquids only)* (8.3 pounds)
Number of Containers:	002
Container Type:	DM - Metal drums, barrels
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	100

Click this hyperlink while viewing on your computer to access
2 additional NY_MANIFEST: record(s) in the EDR Site Report.

S80 **275 FRANKLIN STREET** **NY BROWNFIELDS** **S106437513**
SSW **275 FRANKLIN STREET** **N/A**
1/4-1/2 **BUFFALO, NY 14202**
0.323 mi.
1708 ft. **Site 1 of 3 in cluster S**

Relative: **Lower**

Actual: **616 ft.**

BROWNFIELDS:

Program:	BCP
Site Code:	423240
Acres:	0.25
HW Code:	C915208A
SWIS:	1502
Town:	Buffalo (c)
Record Added Date:	12/23/2009
Record Updated Date:	12/30/2016
Update By:	CRSTANIS
Site Description:	Location: The Offsite Area adjoins two BCP application sites (C915208 and C915237). The C915208 encompasses two adjacent contiguous parcels in the City of Buffalo, Erie Co., and are identified as and located at 275-277 Franklin St. (~0.13 acres), and 279 Franklin St. (~0.12 acres). The offsite areas impacted by the groundwater plume are generally situated south/southwest of the C915208 BCP site. Site Features: The BCP sites and Offsite Areas are situated in an urban downtown commercial district. The 275-277 and 279 Franklin St. parcels (C915208) are paved commercial surface parking lots. The 432 Pearl St. parcel (C915237) is a paved commercial surface parking lot. The 267 Franklin St. parcel (C915237) contains an occupied tenement style apartment building with a paved surface parking lot for the tenants, and is across Asbury Alley from the 432 Pearl St parcel. The Offsite Areas consist of mixed use commercial building intersperced with paved surface parking lots. Some of the commercial buildings are typical of tightly developed urban areas. Current Zoning and Land Use: The surrounding offsite area is situated in the Downtown Opportunity (DO) zoning district which currently contains a mix of uses including apartment residences, restaurants, retail, entertainment, office and parking. A residential apartment are located at 267 Franklin St. Past Use of the Site: Record information concerning the land use dates back to the late 1800s where the area was predominantly closely spaced urban residential interspersed with commercial businesses and establishments. Redevelopment in the ensuing decades and century resulted in less residential use and significant development to a more urban comercial downtown area. Site Geology and Hydrogeology: Overburden: The C915208 BCP site and adjoining offsite areas are located within the Erie-Ontario lake plain physiographic province, which is typified by little topographic relief and gentle slope toward Lake Erie, except in the immediate vicinity of major drainage ways. The surficial geology of the Lake Erie plain generally consists of a thin glacial till layer, glaciolacustrine (lake-laid laminated silts and clays) deposits, alluvium, and soils derived by these deposits. The C915208 BCP site and adjoining offsite area geology consists of a lake-laid sandy ridge deposit about 40 to 45 feet thick with several interbedded silty clay lenses exists below a thin soil/fill layer. The soil/fill layer (2 to 5 feet thick) found throughout the site is characteristic of urban fill common in the City of Buffalo. Glacial till deposits were not encountered at the site except for a thin layer (1 to 2 feet thick) above limestone bedrock. The site is situated over the Onondaga formation limestone. Limestone bedrock was encountered about 52 feet below the surface. Unconfined groundwater was encountered

275 FRANKLIN STREET (Continued) **S106437513**

within the native soils at depths of approximately 10 to 12 feet below groundsurface. Because of a silty clay soil lense within the sandy soil, the site has a defined shallow and deep groundwater horizon. Site groudnwater flow gradient appears to flow in a south/southwest direction. Regional groundwater appears to flow west/southwest toward Lake Erie and confluence of the Buffalo River.

Env Problem:

Supplemental field investigations of the C915208 BCP site were conducted in 2008 to develop an Interim Remedial Measure (IRM) for the C915208 BCP site. This investigation confirmed that deeper groundwater zone is contaminated, but to a lesser level, and that the bedrock zone was not contaminated with the chlorinated solvents. The 2008 C915208 BCP site IRM consisted of in-situ shallow groundwater zone treatment and soil vapor extraction (SVE) from the vadose zone. The in-situ groundwater treatment involved of injecting a hydrogen reducing compound (HRC - a molasses type food product) into the contaminated shallow groundwater zone at numerous intervals to help propagate anaerobic bacteria with the ability to consume and breakdown chlorinated VOCs. Additionally, the groundwater remediation was bio-augmented by injecting a strain of anaerobic bacteria that readily consumes the VOCs. The HRC and bacteria injection was completed in August 2008. The SVE system for the C915208 site consisted of a series of soil vapor extraction wells situated in the solvent contaminated soil areas in the vadose zone and were coupled to a vacuum blower system to extract residual volatilized solvent from the soil. The solvent vapors were scrubbed from the air stream using activated carbon. The installation of the SVE system was completed in December 2008 and was operated through September 2009 where subsequent confirmation soil sampling indicated that target VOC reduction levels in vadose zone soils were achieved. Post-IRM shallow groundwater sampling indicated a reduction in dissolved VOC levels; however, additional measures were determined necessary. An additional injection of bacteria and HRC was conducted in Fall 2009. Current shallow monitoring data suggests that additional remediation measures are required. An additional investigative boring and monitoring well was installed in 2012 to further assess deep groundwater impacts. PRE-REMEDIATION: A Site Investigation (SI) that included BCP site C915208 commenced in late 2006 to supplement 2004 environmental assessments of the 275-277 Franklin St. parcel. The results of the investigations of BCP site C915208 revealed chlorinated solvents commonly used by dry cleaners (tetrachloroethene [PERC, PCE]) in soils and groundwater predominantly at 275-277 Franklin St. parcel. The SI 275-277 Franklin St. parcel revealed that the offsite migration of PCE in groundwater at levels up to 18 parts per million at the 267 Franklin St. apartment building parcel currently owned by the applicant. Additionally, chlorinated solvent vapors were detected during soil vapor evaluations at the 267 Franklin St. parcel (an occupied apartment building). Investigation of offsite areas by DEC on adjoining properties revealed an extensive offsite chlorinated VOC plume. The 275-277 Franklin St. parcel serves as a source of groundwater contamination where trace amounts had migrated to the 432 Pearl St. parcel and at higher levels onto the 267 Franklin st. parcel. These parcels were subsequently purchased by the C915208 BCP applicant and were eventually admitted to the BCP as site C915237. The C915208 site investigation suggests that the 432 Pearl St. parcel is on the fringe of the groundwater contaminant plume, and the groundwater contaminant levels were slightly above the the groundwater quality standard (5 parts per billion) for the

275 FRANKLIN STREET (Continued) **S106437513**

contaminants of concern. The 267 Franklin St. parcel is immediately downgradient of the source area, and as a result, the PCE contaminant levels were significantly higher (up to 18 ppm). Known impacted offsite areas include a commercial business located at 265 Franklin Street (same side of 275 Franklin Street BCP site). Across Franklin Street to the west, a portion of a commercial business located at 259 Delaware Avenue backing onto Franklin Street and a commercial business located at 250 Franklin Street are also impacted by groundwater contamination. Groundwater contamination data suggests that VOC contamination extends in a south/southwesterly direction from the 250 Franklin Street parcel. This area contains a tight mix of urban commercial buildings. POST-IRM: An IRM was implemented at the C918208 BCP site in 2008 to address VOC contamination in vadose zone soils and shallow groundwater. The vapor extraction system appeared to have effectively addressed vadose zone contamination in the soil column above the groundwater source plume. The in-situ groundwater remedial measure to address the VOC source and plume was only partially effective in reducing the VOC source and plume. Additional measures to remediated shallow and deep groundwater VOC contamination are necessary. Vapor intrusion from the chlorinated solvents was a concern with the at 267 Franklin St. apartment building. Prior to acquisition of the this parcel by the BCP volunteer, soil vapor intrusion (VI) evaluation was completed by the DEC in 2008 and revealed PCE impacts to air quality inside the structure. The DEC subsequently installed a sub-slab depressurization system (SSDS) inside the apartment building to reduce VI levels to below DOH action levels for PCE. Additional investigations were required to assess offsite impacts, health and safety concerns, the presence of DNAPL, and bedrock aquifer contamination. The DEC completed an off-site groundwater evaluation in 2009 which revealed that the PCE plume has migrated in a southwesterly direction across Franklin St. Contamination was revealed primarily in the shallow groundwater zone and is diminishing radially away from the source area. Offsite Area properties likely to be impacted from the C915208 BCP site will be situated south-southwest of the BCP site. A subsequent investigation of impacts to downgradient properties and structures (250 Franklin St.) was implemented in 2011 and 2012 and revealed shallow groundwater zone contamination over 3 ppm at 250 Franklin Street. A VI evaluation revealed VI at levels requiring mitigation. A VI SSDS was installed at 250 Franklin Street in 2012. Post-SSDS indoor air sampling has not been completed to assess effectiveness of the installed SSDS. POST-REMEDIATION: The outcome of the adjoining BCP site remediation measures are to be determined as performance monitoring data for the adjoining BCP site is submitted.

Health Problem:	A health assessment will be provided when sufficient information becomes available for the area of concern.
Dump:	False
Structure:	False
Lagoon:	False
Landfill:	False
Pond:	False
Disp Start:	Not reported
Disp Term:	Not reported
Lat/Long:	Not reported
Dell:	Not reported
Record Add:	1/4/2010 11:15:00 AM
Record Upd:	1/4/2010 11:15:00 AM

275 FRANKLIN STREET (Continued) **S106437513**

Updated By:	DMMOLOUG
Own Op:	Owner
Sub Type:	E
Owner Name:	Anthony Martino
Owner Company:	The Franklin Group
Owner Address:	1671 West River Road
Owner Addr2:	Not reported
Owner City,St,Zip:	Grand Island, NY 14072
Owner Country:	United States of America
Own Op:	Owner
Sub Type:	E
Owner Name:	David Metz
Owner Company:	Insty-Prints
Owner Address:	265 Franklin Street
Owner Addr2:	Not reported
Owner City,St,Zip:	Buffalo, NY 14202
Owner Country:	United States of America
HW Code:	Not reported
Waste Type:	Not reported
Waste Quantity:	Not reported
Waste Code:	Not reported
Crossref ID:	Not reported
Cross Ref Type Code:	Not reported
Cross Ref Type:	Not reported
Record Added Date:	Not reported
Record Updated:	Not reported
Updated By:	Not reported

Program:	BCP
Site Code:	366739
Acres:	0.27
HW Code:	C915208
SWIS:	1502
Town:	Buffalo (c)
Record Added Date:	07/10/2006
Record Updated Date:	09/06/2016
Update By:	CRSTANIS
Site Description:	Location: The brownfield site encompasses two contiguous parcels in the City of Buffalo, Erie County, and are identified as 275-277 Franklin Street (~0.13 acres), and 279 Franklin Street (~0.12 acres). The site is situated in an urban commercial district. Site Features: The site is paved with asphalt and is currently used as a commercial surface parking lot approximately 0.25 acres in size. Current Zoning and Land Use: Both contiguous parcels that constitute the site are situated in the Downtown Opportunity (DO) zoning district which currently contains a mix of uses including apartment residences, restaurants, retail, entertainment, office and parking. Permitted use in the DO zoning district includes residential, office, (limited) retail, restaurant, hotel and entertainment. The surrounding parcels are currently used for a combination of commercial uses including surface parking, restaurant and entertainment. Past Use Of The Site: Record information concerning the use of both parcels dates back to the late 1800s where the area was predominantly closely spaced urban residential interspersed with commercial businesses and establishments. 279 Franklin Street: This lot was used for residential purposes from the late 1800s through the 1950s, and as a parking lot from the early 1980s to present. Previous use of the lot

275 FRANKLIN STREET (Continued) **S106437513**

does not reveal any recognized environmental concerns. 275-277 Franklin Street: In the late 1800s, the lot contained a residence with a carriage shed facing Asbury Alley. By the 1950s, the residence was replaced with a commercial use building, and record information indicates that the structure was used by a dry cleaning business from approximately 1951 through the early 2000s. This parcel became delinquent in property taxes and the City of Buffalo foreclosed on the parcel for back taxes. The parcel was sold by the City in 2004. The building on the parcel was demolished in 2004 by the applicant. The building area of the parcel was subsequently paved over and is currently being used as a commercial surface parking lot. According to the BCP application, future development plans for the site and adjoining BCP site (C915237) consists of a hotel with conference and parking facilities. As of 2015, development plans have changed and the site has been marketed for lease development. Site Geology and Hydrogeology: Overburden: The site is located within the Erie-Ontario lake plain physiographic province, which is typified by little topographic relief and gentle slope toward Lake Erie, except in the immediate vicinity of major drainage ways. The surficial geology of the Lake Erie plain generally consists of a thin glacial till layer, glaciolacustrine (lake-laid laminated silts and clays) deposits, alluvium, and soils derived by these deposits. Glacial till deposits were not encountered at the site except for a thin layer (1 to 2 feet thick) above limestone bedrock. The site geology consists of a lake-laid sandy ridge deposit about 40 to 45 feet thick with several inter-bedded silty clay lenses. The site is also covered by a thin soil/fill layer about 2 to 5 feet thick and is found throughout the site. The fill is characteristic of urban fill common in the City of Buffalo. Bedrock: The site is situated over the Onondaga formation limestone. Limestone bedrock was encountered about 52 feet below the surface. Hydrogeology: Unconfined shallow groundwater was encountered within the native soils at depths of approximately 10 to 12 feet below ground surface. Because of a silty clay soil lens within the sandy soil profile at a depth of approximately 25 to 30 feet below ground surface, the site has a defined shallow and deep groundwater zone. Site groundwater flow gradient (shallow and deep) appears to flow in a south/southwest direction. Regional groundwater appears to flow west/southwest toward Lake Erie and confluence of the Buffalo River.

Env Problem:

Pre-Remediation: An RI commenced in late 2006 to supplement earlier environmental site assessment in 2004. Results from this work revealed chlorinated solvents commonly used by dry cleaners (tetrachloroethene [PCE]) in soils up to 20,000 microgram/kilogram (ug/kg) PCE and in shallow groundwater up to 19 parts per million (ppm) PCE at 275-277 Franklin St parcel. The water quality standard for PCE is 0.005 ppm. The source area in shallow groundwater contamination appears to be centered around MW-5. The RI investigation included an adjoining lot at 267 Franklin Street (Site C915237) currently owned by the applicant revealed chlorinated solvents in shallow groundwater at levels up to 18 ppm for PCE. A supplemental site investigation was conducted in 2008 to develop an IRM for the site. Due to a silty clay soil lens midway between the surface and bedrock, two distinct groundwater zones exist at the site. The silty clay soil lens has limited some downward migration of the dissolved contamination. However, the 2008 supplemental investigation confirmed that deeper groundwater zone is contaminated with the chlorinated solvents, with one monitoring well containing

275 FRANKLIN STREET (Continued) **S106437513**

9.4 ppm PCE. PCE levels at this monitoring point have dropped to 0.091 ppm PCE during the 2012 sampling event (post IRM see below). The supplemental investigation confirmed that the bedrock zone does not appear to be contaminated with the chlorinated solvents. Chlorinated solvent vapors were detected during soil vapor evaluations at the 279 Franklin Street parcel. Investigation of off-site areas by the DEC on adjoining properties revealed an extensive elongated off-site chlorinated VOC plume in shallow groundwater. The off site impacts to deep groundwater zone were limited to one of the off-site sampling points hydraulically downgradient of the BCP site (south of the BCP site). Dissolved levels of PCE and its breakdown products at this off-site deep groundwater well have been found at 0.101 ppm total VOCs. Post-IRM: An IRM was implemented in 2008 on the site to address VOC contamination in vadose zone soils and in the shallow groundwater zone. The vapor extraction system appeared to have effectively addressed vadose zone contamination in the soil column above the groundwater source plume. However PCE at shallow well MW-5 rebounded to 70 ppm based upon sampling in 2012. Additional measures to remediate chlorinated VOC contamination in shallow and deep groundwater zones were necessary. An additional investigative boring and deep monitoring well to further assess deep groundwater impacts was installed in 2012 at 267 Franklin Street (adjoining BCP site C915237). Deep groundwater sampling confirmed dissolved chlorinated VOC contamination at levels up to 0.069 ppm total VOCs at this new deep well. The SVE system reduced the chlorinated VOCs in the vadose (soil) zone in the source area to restricted residential SCG guidance levels. The extent of the dissolved shallow plume, vapor intrusion (VI) from the chlorinated solvents was a concern with offsite neighboring structures. A soil VI evaluation completed by the DEC in 2008 revealed PCE impacts to indoor air quality inside the 267 Franklin Street apartment building. The DEC subsequently installed a sub-slab depressurization system (SSDS) inside the apartment building to address VI and reduce indoor air concentrations of PCE. This building and parcel were subsequently acquired by the applicant and allowed into the BCP as site C915237. Vapor intrusion was confirmed in another off-site building and an SSDS was installed in 2012. Additional investigations were required to assess off-site impacts, health and safety concerns, the presence of DNAPL, and bedrock aquifer contamination. Offsite monitoring by DEC confirmed an elongated PCE plume has migrated in a southwesterly direction across Franklin Street. Post Remedial Action: A DEC approved in-situ remedial action measure was implemented in April 2014 and consisted of the following: ENHANCED SHALLOW GROUNDWATER BIOREMEDIATION In-situ shallow groundwater treatment was implemented in 2014 for site C915208 residual source only. Enhanced natural biodegradation of chlorinated VOCs (PCE and its breakdown products)was implemented in an area with the highest residual VOC contaminated shallow groundwater in the immediate vicinity of MW-5 (residual source area at Site C915208) to propagate the biological breakdown of contaminants through anaerobic reductive dechlorination. A mix of nutrients, buffers and chemical agents were injected into the subsurface to a target depth between 10 and 20 feet below ground surface to promote dechlorinating microbe growth. The microbial reductive dechlorination process was also enhanced with the injection of micron scale zero valent iron (ZVI) for physio-chemical abiotic reduction of residual chlorinated VOCs. No specific remediation

275 FRANKLIN STREET (Continued) **S106437513**

	measures to address residual chlorinated VOC contamination in the deep groundwater zone was proposed or implemented. PLUME REDUCTION Plume reduction will be accomplished by treating the groundwater for chlorinated VOCs via in-situ treatment methods such that the groundwater leaving the site has been effectively treated to water quality criteria. At this site, the shallow chlorinated VOC contaminant plume has migrated onto an adjoining property at 275 Franklin Street which is part of the adjoining BCP project site C915208 (275 Franklin Street Site). In 2014, a contaminant plume reduction measure was accomplished by injecting in-situ treatment materials along a series of injection points 10 to 20 feet in depth along accessible western and southern perimeter areas of the site forming a vertical permeable reactive treatment zone. The in-situ treatment materials utilized the same materials used in the source area treatment system to promote enhanced natural anaerobic reductive dechlorination and physio-chemical reduction of residual chlorinated VOC contamination in the shallow groundwater zone. No specific remediation measures were implemented to address off-site migration of residual chlorinated VOC contamination in the deep groundwater zone.
Health Problem:	Access to the site is unrestricted. However, contact with contaminated soil or groundwater is unlikely unless people dig below the ground surface. Contaminated groundwater at the site is not used for drinking or other purposes and the site is served by a public water supply that obtains water from a different source not affected by this contamination. Volatile organic compounds in the groundwater may move into the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. The potential exists for the inhalation of site contaminants due to soil vapor intrusion for any future on-site redevelopment and occupancy.
Dump:	False
Structure:	False
Lagoon:	False
Landfill:	False
Pond:	False
Disp Start:	Not reported
Disp Term:	Not reported
Lat/Long:	42:53’28 / 78:52’28
Dell:	False
Record Add:	7/13/2006 1:05:00 PM
Record Upd:	10/1/2012 12:10:00 PM
Updated By:	ldennist
Own Op:	Document Repository
Sub Type:	NNN
Owner Name:	Michael Mahaney
Owner Company:	Buffalo & Erie County Public Library
Owner Address:	1 LaFayette Square
Owner Addr2:	Not reported
Owner City,St,Zip:	Buffalo, NY 14203
Owner Country:	United States of America
Own Op:	Applicant/Requestor
Sub Type:	P03
Owner Name:	Mark D. Croce
Owner Company:	Buffalo Development Corporation

275 FRANKLIN STREET (Continued) **S106437513**

Owner Address:	257 Franklin Street
Owner Addr2:	Not reported
Owner City,St,Zip:	Buffalo, NY 14202
Owner Country:	United States of America
HW Code:	C915208
Waste Type:	tetrachloroethene (PCE)
Waste Quantity:	UNKNOWN
Waste Code:	F002
HW Code:	C915208
Waste Type:	tetrachloroethene (PCE)
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915208
Waste Type:	TRICHLOROETHENE (TCE)
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915208
Waste Type:	TETRACHLOROETHYLENE (PCE)
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
Crossref ID:	B9-0722-06-07
Cross Ref Type Code:	23
Cross Ref Type:	Agreement/Consent Order Number
Record Added Date:	4/17/2009 11:37:00 AM
Record Updated:	4/17/2009 11:37:00 AM
Updated By:	THKNIZEK
Crossref ID:	C915237
Cross Ref Type Code:	22
Cross Ref Type:	BCP Site ID
Record Added Date:	7/8/2010 2:40:00 PM
Record Updated:	7/8/2010 2:40:00 PM
Updated By:	MOBARRIE

S81 **BUFFALO DEVELOPMENT CORP - BCP SITE NO C915208** **NY ENG CONTROLS** **1000291112**
SSW **275 FRANKLIN ST** **NY INST CONTROL** **NYD981076581**
1/4-1/2 **BUFFALO, NY 14202** **RCRA NonGen / NLR**
0.323 mi. **NY MANIFEST**
1708 ft. **Site 2 of 3 in cluster S**

Relative: **Lower**

Actual: **616 ft.**

ENG CONTROLS:

Site Code:	366739
HW Code:	C915208
Control Code:	15
Control Type:	ENG
Date Record Added:	02/21/2013
Date Rec Updated:	05/09/2017
Updated By:	CRSTANIS
Site Description:	Location: The brownfield site encompasses two contiguous parcels in the City of Buffalo, Erie County, and are identified as 275-277 Franklin Street (~0.13 acres), and 279 Franklin Street (~0.12 acres). The site is situated in an urban commercial district. Site Features: The site is paved with asphalt and is currently used as a commercial surface parking lot approximately 0.25 acres in size. Current Zoning and Land Use: Both contiguous parcels that constitute the site are situated in the Downtown Opportunity (DO) zoning district which currently contains a mix of uses including apartment residences, restaurants, retail, entertainment, office and parking. Permitted use in the DO zoning district includes residential, office, (limited)

BUFFALO DEVELOPMENT CORP - BCP SITE NO C915208 (Continued) **1000291112**

retail, restaurant, hotel and entertainment. The surrounding parcels are currently used for a combination of commercial uses including surface parking, restaurant and entertainment. Past Use Of The Site: Record information concerning the use of both parcels dates back to the late 1800s where the area was predominantly closely spaced urban residential interspersed with commercial businesses and establishments. 279 Franklin Street: This lot was used for residential purposes from the late 1800s through the 1950s, and as a parking lot from the early 1980s to present. Previous use of the lot does not reveal any recognized environmental concerns. 275-277 Franklin Street: In the late 1800s, the lot contained a residence with a carriage shed facing Asbury Alley. By the 1950s, the residence was replaced with a commercial use building, and record information indicates that the structure was used by a dry cleaning business from approximately 1951 through the early 2000s. This parcel became delinquent in property taxes and the City of Buffalo foreclosed on the parcel for back taxes. The parcel was sold by the City in 2004. The building on the parcel was demolished in 2004 by the applicant. The building area of the parcel was subsequently paved over and is currently being used as a commercial surface parking lot. According to the BCP application, future development plans for the site and adjoining BCP site (C915237) consists of a hotel with conference and parking facilities. As of 2015, development plans have changed and the site has been marketed for lease development. Site Geology and Hydrogeology: Overburden: The site is located within the Erie-Ontario lake plain physiographic province, which is typified by little topographic relief and gentle slope toward Lake Erie, except in the immediate vicinity of major drainage ways. The surficial geology of the Lake Erie plain generally consists of a thin glacial till layer, glaciolacustrine (lake-laid laminated silts and clays) deposits, alluvium, and soils derived by these deposits. Glacial till deposits were not encountered at the site except for a thin layer (1 to 2 feet thick) above limestone bedrock. The site geology consists of a lake-laid sandy ridge deposit about 40 to 45 feet thick with several inter-bedded silty clay lenses. The site is also covered by a thin soil/fill layer about 2 to 5 feet thick and is found throughout the site. The fill is characteristic of urban fill common in the City of Buffalo. Bedrock: The site is situated over the Onondaga formation limestone. Limestone bedrock was encountered about 52 feet below the surface. Hydrogeology: Unconfined shallow groundwater was encountered within the native soils at depths of approximately 10 to 12 feet below ground surface. Because of a silty clay soil lens within the sandy soil profile at a depth of approximately 25 to 30 feet below ground surface, the site has a defined shallow and deep groundwater zone. Site groundwater flow gradient (shallow and deep) appears to flow in a south/southwest direction. Regional groundwater appears to flow west/southwest toward Lake Erie and confluence of the Buffalo River.

Env Problem: Pre-Remediation: An RI commenced in late 2006 to supplement earlier environmental site assessment in 2004. Results from this work revealed chlorinated solvents commonly used by dry cleaners (tetrachloroethene [PCE]) in soils up to 20,000 microgram/kilogram (ug/kg) PCE and in shallow groundwater up to 19 parts per million (ppm) PCE at 275-277 Franklin St parcel. The water quality standard for PCE is 0.005 ppm. The source area in shallow groundwater contamination appears to be centered around MW-5. The RI investigation included an adjoining lot at 267 Franklin Street (Site

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C915237) currently owned by the applicant revealed chlorinated solvents in shallow groundwater at levels up to 18 ppm for PCE. A supplemental site investigation was conducted in 2008 to develop an IRM for the site. Due to a silty clay soil lens midway between the surface and bedrock, two distinct groundwater zones exist at the site. The silty clay soil lens has limited some downward migration of the dissolved contamination. However, the 2008 supplemental investigation confirmed that deeper groundwater zone is contaminated with the chlorinated solvents, with one monitoring well containing 9.4 ppm PCE. PCE levels at this monitoring point have dropped to 0.091 ppm PCE during the 2012 sampling event (post IRM see below). The supplemental investigation confirmed that the bedrock zone does not appear to be contaminated with the chlorinated solvents. Chlorinated solvent vapors were detected during soil vapor evaluations at the 279 Franklin Street parcel. Investigation of off-site areas by the DEC on adjoining properties revealed an extensive elongated off-site chlorinated VOC plume in shallow groundwater. The off site impacts to deep groundwater zone were limited to one of the off-site sampling points hydraulically downgradient of the BCP site (south of the BCP site). Dissolved levels of PCE and its breakdown products at this off-site deep groundwater well have been found at 0.101 ppm total VOCs. Post-IRM: An IRM was implemented in 2008 on the site to address VOC contamination in vadose zone soils and in the shallow groundwater zone. The vapor extraction system appeared to have effectively addressed vadose zone contamination in the soil column above the groundwater source plume. However PCE at shallow well MW-5 rebounded to 70 ppm based upon sampling in 2012. Additional measures to remediate chlorinated VOC contamination in shallow and deep groundwater zones were necessary. An additional investigative boring and deep monitoring well to further assess deep groundwater impacts was installed in 2012 at 267 Franklin Street (adjoining BCP site C915237). Deep groundwater sampling confirmed dissolved chlorinated VOC contamination at levels up to 0.069 ppm total VOCs at this new deep well. The SVE system reduced the chlorinated VOCs in the vadose (soil) zone in the source area to restricted residential SCG guidance levels. The extent of the dissolved shallow plume, vapor intrusion (VI) from the chlorinated solvents was a concern with offsite neighboring structures. A soil VI evaluation completed by the DEC in 2008 revealed PCE impacts to indoor air quality inside the 267 Franklin Street apartment building. The DEC subsequently installed a sub-slab depressurization system (SSDS) inside the apartment building to address VI and reduce indoor air concentrations of PCE. This building and parcel were subsequently acquired by the applicant and allowed into the BCP as site C915237. Vapor intrusion was confirmed in another off-site building and an SSDS was installed in 2012. Additional investigations were required to assess off-site impacts, health and safety concerns, the presence of DNAPL, and bedrock aquifer contamination. Offsite monitoring by DEC confirmed an elongated PCE plume has migrated in a southwesterly direction across Franklin Street. Post Remedial Action: A DEC approved in-situ remedial action measure was implemented in April 2014 and consisted of the following: ENHANCED SHALLOW GROUNDWATER BIOREMEDIATION In-situ shallow groundwater treatment was implemented in 2014 for site C915208 residual source only. Enhanced natural biodegradation of chlorinated VOCs (PCE and its breakdown products)was implemented in an area with the highest residual VOC contaminated shallow

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groundwater in the immediate vicinity of MW-5 (residual source area at Site C915208) to propagate the biological breakdown of contaminants through anaerobic reductive dechlorination. A mix of nutrients, buffers and chemical agents were injected into the subsurface to a target depth between 10 and 20 feet below ground surface to promote dechlorinating microbe growth. The microbial reductive dechlorination process was also enhanced with the injection of micron scale zero valent iron (ZVI) for physio-chemical abiotic reduction of residual chlorinated VOCs. No specific remediation measures to address residual chlorinated VOC contamination in the deep groundwater zone was proposed or implemented. PLUME REDUCTION Plume reduction will be accomplished by treating the groundwater for chlorinated VOCs via in-situ treatment methods such that the groundwater leaving the site has been effectively treated to water quality criteria. At this site, the shallow chlorinated VOC contaminant plume has migrated onto an adjoining property at 275 Franklin Street which is part of the adjoining BCP project site C915208 (275 Franklin Street Site). In 2014, a contaminant plume reduction measure was accomplished by injecting in-situ treatment materials along a series of injection points 10 to 20 feet in depth along accessible western and southern perimeter areas of the site forming a vertical permeable reactive treatment zone. The in-situ treatment materials utilized the same materials used in the source area treatment system to promote enhanced natural anaerobic reductive dechlorination and physio-chemical reduction of residual chlorinated VOC contamination in the shallow groundwater zone. No specific remediation measures were implemented to address off-site migration of residual chlorinated VOC contamination in the deep groundwater zone.

Health Problem: Access to the site is unrestricted. However, contact with contaminated soil or groundwater is unlikely unless people dig below the ground surface. Contaminated groundwater at the site is not used for drinking or other purposes and the site is served by a public water supply that obtains water from a different source not affected by this contamination. Volatile organic compounds in the groundwater may move into the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. The potential exists for the inhalation of site contaminants due to soil vapor intrusion for any future on-site redevelopment and occupancy.

Dump: False
Structure: False
Lagoon: False
Landfill: False
Pond: False
Disp Start: Not reported
Disp Term: Not reported
Lat/Long: 42:53'28 / 78:52'28
Dell: False
Record Add: 7/13/2006 1:05:00 PM
Record Upd: 10/1/2012 12:10:00 PM
Updated By: ldennist
Own Op: Document Repository
Sub Type: NNN
Owner Name: Michael Mahaney

BUFFALO DEVELOPMENT CORP - BCP SITE NO C915208 (Continued) **1000291112**

Owner Company:	Buffalo & Erie County Public Library
Owner Address:	1 LaFayette Square
Owner Addr2:	Not reported
Owner City,St,Zip:	Buffalo, NY 14203
Owner Country:	United States of America
Own Op:	Applicant/Requestor
Sub Type:	P03
Owner Name:	Mark D. Croce
Owner Company:	Buffalo Development Corporation
Owner Address:	257 Franklin Street
Owner Addr2:	Not reported
Owner City,St,Zip:	Buffalo, NY 14202
Owner Country:	United States of America
HW Code:	C915208
Waste Type:	tetrachloroethene (PCE)
Waste Quantity:	UNKNOWN
Waste Code:	F002
HW Code:	C915208
Waste Type:	tetrachloroethene (PCE)
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915208
Waste Type:	TRICHLOROETHENE (TCE)
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915208
Waste Type:	TETRACHLOROETHYLENE (PCE)
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
Crossref ID:	B9-0722-06-07
Cross Ref Type Code:	23
Cross Ref Type:	Agreement/Consent Order Number
Record Added Date:	4/17/2009 11:37:00 AM
Record Updated:	4/17/2009 11:37:00 AM
Updated By:	THKNIZEK
Crossref ID:	C915237
Cross Ref Type Code:	22
Cross Ref Type:	BCP Site ID
Record Added Date:	7/8/2010 2:40:00 PM
Record Updated:	7/8/2010 2:40:00 PM
Updated By:	MOBARRIE
Site Code:	366739
HW Code:	C915208
Control Code:	13
Control Type:	ENG
Date Record Added:	06/19/2013
Date Rec Updated:	05/09/2017
Updated By:	CRSTANIS
Site Description:	Location: The brownfield site encompasses two contiguous parcels in the City of Buffalo, Erie County, and are identified as 275-277 Franklin Street (~0.13 acres), and 279 Franklin Street (~0.12 acres). The site is situated in an urban commercial district. Site Features: The site is paved with asphalt and is currently used as a commercial surface parking lot approximately 0.25 acres in size. Current Zoning and Land Use: Both contiguous parcels that constitute the site are situated in the Downtown Opportunity (DO) zoning district which

BUFFALO DEVELOPMENT CORP - BCP SITE NO C915208 (Continued) **1000291112**

currently contains a mix of uses including apartment residences, restaurants, retail, entertainment, office and parking. Permitted use in the DO zoning district includes residential, office, (limited) retail, restaurant, hotel and entertainment. The surrounding parcels are currently used for a combination of commercial uses including surface parking, restaurant and entertainment. Past Use Of The Site: Record information concerning the use of both parcels dates back to the late 1800s where the area was predominantly closely spaced urban residential interspersed with commercial businesses and establishments. 279 Franklin Street: This lot was used for residential purposes from the late 1800s through the 1950s, and as a parking lot from the early 1980s to present. Previous use of the lot does not reveal any recognized environmental concerns. 275-277 Franklin Street: In the late 1800s, the lot contained a residence with a carriage shed facing Asbury Alley. By the 1950s, the residence was replaced with a commercial use building, and record information indicates that the structure was used by a dry cleaning business from approximately 1951 through the early 2000s. This parcel became delinquent in property taxes and the City of Buffalo foreclosed on the parcel for back taxes. The parcel was sold by the City in 2004. The building on the parcel was demolished in 2004 by the applicant. The building area of the parcel was subsequently paved over and is currently being used as a commercial surface parking lot. According to the BCP application, future development plans for the site and adjoining BCP site (C915237) consists of a hotel with conference and parking facilities. As of 2015, development plans have changed and the site has been marketed for lease development. Site Geology and Hydrogeology: Overburden: The site is located within the Erie-Ontario lake plain physiographic province, which is typified by little topographic relief and gentle slope toward Lake Erie, except in the immediate vicinity of major drainage ways. The surficial geology of the Lake Erie plain generally consists of a thin glacial till layer, glaciolacustrine (lake-laid laminated silts and clays) deposits, alluvium, and soils derived by these deposits. Glacial till deposits were not encountered at the site except for a thin layer (1 to 2 feet thick) above limestone bedrock. The site geology consists of a lake-laid sandy ridge deposit about 40 to 45 feet thick with several inter-bedded silty clay lenses. The site is also covered by a thin soil/fill layer about 2 to 5 feet thick and is found throughout the site. The fill is characteristic of urban fill common in the City of Buffalo. Bedrock: The site is situated over the Onondaga formation limestone. Limestone bedrock was encountered about 52 feet below the surface. Hydrogeology: Unconfined shallow groundwater was encountered within the native soils at depths of approximately 10 to 12 feet below ground surface. Because of a silty clay soil lens within the sandy soil profile at a depth of approximately 25 to 30 feet below ground surface, the site has a defined shallow and deep groundwater zone. Site groundwater flow gradient (shallow and deep) appears to flow in a south/southwest direction. Regional groundwater appears to flow west/southwest toward Lake Erie and confluence of the Buffalo River.

Env Problem: Pre-Remediation: An RI commenced in late 2006 to supplement earlier environmental site assessment in 2004. Results from this work revealed chlorinated solvents commonly used by dry cleaners (tetrachloroethene [PCE]) in soils up to 20,000 microgram/kilogram (ug/kg) PCE and in shallow groundwater up to 19 parts per million (ppm) PCE at 275-277 Franklin St parcel. The water quality standard

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for PCE is 0.005 ppm. The source area in shallow groundwater contamination appears to be centered around MW-5. The RI investigation included an adjoining lot at 267 Franklin Street (Site C915237) currently owned by the applicant revealed chlorinated solvents in shallow groundwater at levels up to 18 ppm for PCE. A supplemental site investigation was conducted in 2008 to develop an IRM for the site. Due to a silty clay soil lens midway between the surface and bedrock, two distinct groundwater zones exist at the site. The silty clay soil lens has limited some downward migration of the dissolved contamination. However, the 2008 supplemental investigation confirmed that deeper groundwater zone is contaminated with the chlorinated solvents, with one monitoring well containing 9.4 ppm PCE. PCE levels at this monitoring point have dropped to 0.091 ppm PCE during the 2012 sampling event (post IRM see below). The supplemental investigation confirmed that the bedrock zone does not appear to be contaminated with the chlorinated solvents. Chlorinated solvent vapors were detected during soil vapor evaluations at the 279 Franklin Street parcel. Investigation of off-site areas by the DEC on adjoining properties revealed an extensive elongated off-site chlorinated VOC plume in shallow groundwater. The off site impacts to deep groundwater zone were limited to one of the off-site sampling points hydraulically downgradient of the BCP site (south of the BCP site). Dissolved levels of PCE and its breakdown products at this off-site deep groundwater well have been found at 0.101 ppm total VOCs. Post-IRM: An IRM was implemented in 2008 on the site to address VOC contamination in vadose zone soils and in the shallow groundwater zone. The vapor extraction system appeared to have effectively addressed vadose zone contamination in the soil column above the groundwater source plume. However PCE at shallow well MW-5 rebounded to 70 ppm based upon sampling in 2012. Additional measures to remediate chlorinated VOC contamination in shallow and deep groundwater zones were necessary. An additional investigative boring and deep monitoring well to further assess deep groundwater impacts was installed in 2012 at 267 Franklin Street (adjoining BCP site C915237). Deep groundwater sampling confirmed dissolved chlorinated VOC contamination at levels up to 0.069 ppm total VOCs at this new deep well. The SVE system reduced the chlorinated VOCs in the vadose (soil) zone in the source area to restricted residential SCG guidance levels. The extent of the dissolved shallow plume, vapor intrusion (VI) from the chlorinated solvents was a concern with offsite neighboring structures. A soil VI evaluation completed by the DEC in 2008 revealed PCE impacts to indoor air quality inside the 267 Franklin Street apartment building. The DEC subsequently installed a sub-slab depressurization system (SSDS) inside the apartment building to address VI and reduce indoor air concentrations of PCE. This building and parcel were subsequently acquired by the applicant and allowed into the BCP as site C915237. Vapor intrusion was confirmed in another off-site building and an SSDS was installed in 2012. Additional investigations were required to assess off-site impacts, health and safety concerns, the presence of DNAPL, and bedrock aquifer contamination. Offsite monitoring by DEC confirmed an elongated PCE plume has migrated in a southwesterly direction across Franklin Street. Post Remedial Action: A DEC approved in-situ remedial action measure was implemented in April 2014 and consisted of the following: ENHANCED SHALLOW GROUNDWATER BIOREMEDIATION In-situ shallow groundwater treatment was implemented in 2014 for site

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C915208 residual source only. Enhanced natural biodegradation of chlorinated VOCs (PCE and its breakdown products)was implemented in an area with the highest residual VOC contaminated shallow groundwater in the immediate vicinity of MW-5 (residual source area at Site C915208) to propagate the biological breakdown of contaminants through anaerobic reductive dechlorination. A mix of nutrients, buffers and chemical agents were injected into the subsurface to a target depth between 10 and 20 feet below ground surface to promote dechlorinating microbe growth. The microbial reductive dechlorination process was also enhanced with the injection of micron scale zero valent iron (ZVI) for physio-chemical abiotic reduction of residual chlorinated VOCs. No specific remediation measures to address residual chlorinated VOC contamination in the deep groundwater zone was proposed or implemented. PLUME REDUCTION Plume reduction will be accomplished by treating the groundwater for chlorinated VOCs via in-situ treatment methods such that the groundwater leaving the site has been effectively treated to water quality criteria. At this site, the shallow chlorinated VOC contaminant plume has migrated onto an adjoining property at 275 Franklin Street which is part of the adjoining BCP project site C915208 (275 Franklin Street Site). In 2014, a contaminant plume reduction measure was accomplished by injecting in-situ treatment materials along a series of injection points 10 to 20 feet in depth along accessible western and southern perimeter areas of the site forming a vertical permeable reactive treatment zone. The in-situ treatment materials utilized the same materials used in the source area treatment system to promote enhanced natural anaerobic reductive dechlorination and physio-chemical reduction of residual chlorinated VOC contamination in the shallow groundwater zone. No specific remediation measures were implemented to address off-site migration of residual chlorinated VOC contamination in the deep groundwater zone.

Health Problem: Access to the site is unrestricted. However, contact with contaminated soil or groundwater is unlikely unless people dig below the ground surface. Contaminated groundwater at the site is not used for drinking or other purposes and the site is served by a public water supply that obtains water from a different source not affected by this contamination. Volatile organic compounds in the groundwater may move into the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. The potential exists for the inhalation of site contaminants due to soil vapor intrusion for any future on-site redevelopment and occupancy.

Dump: False
Structure: False
Lagoon: False
Landfill: False
Pond: False
Disp Start: Not reported
Disp Term: Not reported
Lat/Long: 42:53’28 / 78:52’28
Dell: False
Record Add: 7/13/2006 1:05:00 PM
Record Upd: 10/1/2012 12:10:00 PM
Updated By: ldennist

BUFFALO DEVELOPMENT CORP - BCP SITE NO C915208 (Continued) **1000291112**

Own Op: Document Repository
Sub Type: NNN
Owner Name: Michael Mahaney
Owner Company: Buffalo & Erie County Public Library
Owner Address: 1 LaFayette Square
Owner Addr2: Not reported
Owner City,St,Zip: Buffalo, NY 14203
Owner Country: United States of America
Own Op: Applicant/Requestor
Sub Type: P03
Owner Name: Mark D. Croce
Owner Company: Buffalo Development Corporation
Owner Address: 257 Franklin Street
Owner Addr2: Not reported
Owner City,St,Zip: Buffalo, NY 14202
Owner Country: United States of America
HW Code: C915208
Waste Type: tetrachloroethene (PCE)
Waste Quantity: UNKNOWN
Waste Code: F002
HW Code: C915208
Waste Type: tetrachloroethene (PCE)
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915208
Waste Type: TRICHLOROETHENE (TCE)
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915208
Waste Type: TETRACHLOROETHYLENE (PCE)
Waste Quantity: UNKNOWN
Waste Code: Not reported
Crossref ID: B9-0722-06-07
Cross Ref Type Code: 23
Cross Ref Type: Agreement/Consent Order Number
Record Added Date: 4/17/2009 11:37:00 AM
Record Updated: 4/17/2009 11:37:00 AM
Updated By: THKNIZEK
Crossref ID: C915237
Cross Ref Type Code: 22
Cross Ref Type: BCP Site ID
Record Added Date: 7/8/2010 2:40:00 PM
Record Updated: 7/8/2010 2:40:00 PM
Updated By: MOBARRIE

INST CONTROL:
Site Code: 366739
Control Name: Soil Management Plan
HW Code: C915208
Control Code: 14
Control Type: INST
Dt record added: 06/19/2013
Dt rec updated: 05/09/2017
Updated By: CRSTANIS
Site Code: 366739
Site Description: Location: The brownfield site encompasses two contiguous parcels in the City of Buffalo, Erie County, and are identified as 275-277

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Franklin Street (~0.13 acres), and 279 Franklin Street (~0.12 acres). The site is situated in an urban commercial district. Site Features: The site is paved with asphalt and is currently used as a commercial surface parking lot approximately 0.25 acres in size. Current Zoning and Land Use: Both contiguous parcels that constitute the site are situated in the Downtown Opportunity (DO) zoning district which currently contains a mix of uses including apartment residences, restaurants, retail, entertainment, office and parking. Permitted use in the DO zoning district includes residential, office, (limited) retail, restaurant, hotel and entertainment. The surrounding parcels are currently used for a combination of commercial uses including surface parking, restaurant and entertainment. Past Use Of The Site: Record information concerning the use of both parcels dates back to the late 1800s where the area was predominantly closely spaced urban residential interspersed with commercial businesses and establishments. 279 Franklin Street: This lot was used for residential purposes from the late 1800s through the 1950s, and as a parking lot from the early 1980s to present. Previous use of the lot does not reveal any recognized environmental concerns. 275-277 Franklin Street: In the late 1800s, the lot contained a residence with a carriage shed facing Asbury Alley. By the 1950s, the residence was replaced with a commercial use building, and record information indicates that the structure was used by a dry cleaning business from approximately 1951 through the early 2000s. This parcel became delinquent in property taxes and the City of Buffalo foreclosed on the parcel for back taxes. The parcel was sold by the City in 2004. The building on the parcel was demolished in 2004 by the applicant. The building area of the parcel was subsequently paved over and is currently being used as a commercial surface parking lot. According to the BCP application, future development plans for the site and adjoining BCP site (C915237) consists of a hotel with conference and parking facilities. As of 2015, development plans have changed and the site has been marketed for lease development. Site Geology and Hydrogeology: Overburden: The site is located within the Erie-Ontario lake plain physiographic province, which is typified by little topographic relief and gentle slope toward Lake Erie, except in the immediate vicinity of major drainage ways. The surficial geology of the Lake Erie plain generally consists of a thin glacial till layer, glaciolacustrine (lake-laid laminated silts and clays) deposits, alluvium, and soils derived by these deposits. Glacial till deposits were not encountered at the site except for a thin layer (1 to 2 feet thick) above limestone bedrock. The site geology consists of a lake-laid sandy ridge deposit about 40 to 45 feet thick with several inter-bedded silty clay lenses. The site is also covered by a thin soil/fill layer about 2 to 5 feet thick and is found throughout the site. The fill is characteristic of urban fill common in the City of Buffalo. Bedrock: The site is situated over the Onondaga formation limestone. Limestone bedrock was encountered about 52 feet below the surface. Hydrogeology: Unconfined shallow groundwater was encountered within the native soils at depths of approximately 10 to 12 feet below ground surface. Because of a silty clay soil lens within the sandy soil profile at a depth of approximately 25 to 30 feet below ground surface, the site has a defined shallow and deep groundwater zone. Site groundwater flow gradient (shallow and deep) appears to flow in a south/southwest direction. Regional groundwater appears to flow west/southwest toward Lake Erie and confluence of the Buffalo River.

BUFFALO DEVELOPMENT CORP - BCP SITE NO C915208 (Continued) **1000291112**

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BUFFALO DEVELOPMENT CORP - BCP SITE NO C915208 (Continued) **1000291112**

aquifer contamination. Offsite monitoring by DEC confirmed an elongated PCE plume has migrated in a southwesterly direction across Franklin Street. Post Remedial Action: A DEC approved in-situ remedial action measure was implemented in April 2014 and consisted of the following: ENHANCED SHALLOW GROUNDWATER BIOREMEDIATION In-situ shallow groundwater treatment was implemented in 2014 for site C915208 residual source only. Enhanced natural biodegradation of chlorinated VOCs (PCE and its breakdown products)was implemented in an area with the highest residual VOC contaminated shallow groundwater in the immediate vicinity of MW-5 (residual source area at Site C915208) to propagate the biological breakdown of contaminants through anaerobic reductive dechlorination. A mix of nutrients, buffers and chemical agents were injected into the subsurface to a target depth between 10 and 20 feet below ground surface to promote dechlorinating microbe growth. The microbial reductive dechlorination process was also enhanced with the injection of micron scale zero valent iron (ZVI) for physio-chemical abiotic reduction of residual chlorinated VOCs. No specific remediation measures to address residual chlorinated VOC contamination in the deep groundwater zone was proposed or implemented. PLUME REDUCTION Plume reduction will be accomplished by treating the groundwater for chlorinated VOCs via in-situ treatment methods such that the groundwater leaving the site has been effectively treated to water quality criteria. At this site, the shallow chlorinated VOC contaminant plume has migrated onto an adjoining property at 275 Franklin Street which is part of the adjoining BCP project site C915208 (275 Franklin Street Site). In 2014, a contaminant plume reduction measure was accomplished by injecting in-situ treatment materials along a series of injection points 10 to 20 feet in depth along accessible western and southern perimeter areas of the site forming a vertical permeable reactive treatment zone. The in-situ treatment materials utilized the same materials used in the source area treatment system to promote enhanced natural anaerobic reductive dechlorination and physio-chemical reduction of residual chlorinated VOC contamination in the shallow groundwater zone. No specific remediation measures were implemented to address off-site migration of residual chlorinated VOC contamination in the deep groundwater zone.

Health Problem: Access to the site is unrestricted. However, contact with contaminated soil or groundwater is unlikely unless people dig below the ground surface. Contaminated groundwater at the site is not used for drinking or other purposes and the site is served by a public water supply that obtains water from a different source not affected by this contamination. Volatile organic compounds in the groundwater may move into the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. The potential exists for the inhalation of site contaminants due to soil vapor intrusion for any future on-site redevelopment and occupancy.

Dump: False
Structure: False
Lagoon: False
Landfill: False
Pond: False
Disp Start: Not reported

BUFFALO DEVELOPMENT CORP - BCP SITE NO C915208 (Continued) **1000291112**

Disp Term: Not reported
Lat/Long: 42:53'28 / 78:52'28
Dell: False
Record Add: 7/13/2006 1:05:00 PM
Record Upd: 10/1/2012 12:10:00 PM
Updated By: ldennist
Own Op: Document Repository
Sub Type: NNN
Owner Name: Michael Mahaney
Owner Company: Buffalo & Erie County Public Library
Owner Address: 1 LaFayette Square
Owner Addr2: Not reported
Owner City,St,Zip: Buffalo, NY 14203
Owner Country: United States of America
Own Op: Applicant/Requestor
Sub Type: P03
Owner Name: Mark D. Croce
Owner Company: Buffalo Development Corporation
Owner Address: 257 Franklin Street
Owner Addr2: Not reported
Owner City,St,Zip: Buffalo, NY 14202
Owner Country: United States of America
HW Code: C915208
Waste Type: tetrachloroethene (PCE)
Waste Quantity: UNKNOWN
Waste Code: F002
HW Code: C915208
Waste Type: tetrachloroethene (PCE)
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915208
Waste Type: TRICHLOROETHENE (TCE)
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915208
Waste Type: TETRACHLOROETHYLENE (PCE)
Waste Quantity: UNKNOWN
Waste Code: Not reported
Crossref ID: B9-0722-06-07
Cross Ref Type Code: 23
Cross Ref Type: Agreement/Consent Order Number
Record Added Date: 4/17/2009 11:37:00 AM
Record Updated: 4/17/2009 11:37:00 AM
Updated By: THKNIZEK
Crossref ID: C915237
Cross Ref Type Code: 22
Cross Ref Type: BCP Site ID
Record Added Date: 7/8/2010 2:40:00 PM
Record Updated: 7/8/2010 2:40:00 PM
Updated By: MOBARRIE

Site Code: 366739
Control Name: Monitoring Plan
HW Code: C915208
Control Code: 31
Control Type: INST
Dt record added: 06/19/2013

BUFFALO DEVELOPMENT CORP - BCP SITE NO C915208 (Continued) **1000291112**

Dt rec updated: 05/09/2017
Updated By: CRSTANIS
Site Code: 366739
Site Description: Location: The brownfield site encompasses two contiguous parcels in the City of Buffalo, Erie County, and are identified as 275-277 Franklin Street (~0.13 acres), and 279 Franklin Street (~0.12 acres). The site is situated in an urban commercial district. Site Features: The site is paved with asphalt and is currently used as a commercial surface parking lot approximately 0.25 acres in size. Current Zoning and Land Use: Both contiguous parcels that constitute the site are situated in the Downtown Opportunity (DO) zoning district which currently contains a mix of uses including apartment residences, restaurants, retail, entertainment, office and parking. Permitted use in the DO zoning district includes residential, office, (limited) retail, restaurant, hotel and entertainment. The surrounding parcels are currently used for a combination of commercial uses including surface parking, restaurant and entertainment. Past Use Of The Site: Record information concerning the use of both parcels dates back to the late 1800s where the area was predominantly closely spaced urban residential interspersed with commercial businesses and establishments. 279 Franklin Street: This lot was used for residential purposes from the late 1800s through the 1950s, and as a parking lot from the early 1980s to present. Previous use of the lot does not reveal any recognized environmental concerns. 275-277 Franklin Street: In the late 1800s, the lot contained a residence with a carriage shed facing Asbury Alley. By the 1950s, the residence was replaced with a commercial use building, and record information indicates that the structure was used by a dry cleaning business from approximately 1951 through the early 2000s. This parcel became delinquent in property taxes and the City of Buffalo foreclosed on the parcel for back taxes. The parcel was sold by the City in 2004. The building on the parcel was demolished in 2004 by the applicant. The building area of the parcel was subsequently paved over and is currently being used as a commercial surface parking lot. According to the BCP application, future development plans for the site and adjoining BCP site (C915237) consists of a hotel with conference and parking facilities. As of 2015, development plans have changed and the site has been marketed for lease development. Site Geology and Hydrogeology: Overburden: The site is located within the Erie-Ontario lake plain physiographic province, which is typified by little topographic relief and gentle slope toward Lake Erie, except in the immediate vicinity of major drainage ways. The surficial geology of the Lake Erie plain generally consists of a thin glacial till layer, glaciolacustrine (lake-laid laminated silts and clays) deposits, alluvium, and soils derived by these deposits. Glacial till deposits were not encountered at the site except for a thin layer (1 to 2 feet thick) above limestone bedrock. The site geology consists of a lake-laid sandy ridge deposit about 40 to 45 feet thick with several inter-bedded silty clay lenses. The site is also covered by a thin soil/fill layer about 2 to 5 feet thick and is found throughout the site. The fill is characteristic of urban fill common in the City of Buffalo. Bedrock: The site is situated over the Onondaga formation limestone. Limestone bedrock was encountered about 52 feet below the surface. Hydrogeology: Unconfined shallow groundwater was encountered within the native soils at depths of approximately 10 to 12 feet below ground surface. Because of a silty clay soil lens within the sandy soil profile at a depth of approximately 25 to 30 feet below

BUFFALO DEVELOPMENT CORP - BCP SITE NO C915208 (Continued) **1000291112**

ground surface, the site has a defined shallow and deep groundwater zone. Site groundwater flow gradient (shallow and deep) appears to flow in a south/southwest direction. Regional groundwater appears to flow west/southwest toward Lake Erie and confluence of the Buffalo River.

Env Problem: Pre-Remediation: An RI commenced in late 2006 to supplement earlier environmental site assessment in 2004. Results from this work revealed chlorinated solvents commonly used by dry cleaners (tetrachloroethene [PCE]) in soils up to 20,000 microgram/kilogram (ug/kg) PCE and in shallow groundwater up to 19 parts per million (ppm) PCE at 275-277 Franklin St parcel. The water quality standard for PCE is 0.005 ppm. The source area in shallow groundwater contamination appears to be centered around MW-5. The RI investigation included an adjoining lot at 267 Franklin Street (Site C915237) currently owned by the applicant revealed chlorinated solvents in shallow groundwater at levels up to 18 ppm for PCE. A supplemental site investigation was conducted in 2008 to develop an IRM for the site. Due to a silty clay soil lens midway between the surface and bedrock, two distinct groundwater zones exist at the site. The silty clay soil lens has limited some downward migration of the dissolved contamination. However, the 2008 supplemental investigation confirmed that deeper groundwater zone is contaminated with the chlorinated solvents, with one monitoring well containing 9.4 ppm PCE. PCE levels at this monitoring point have dropped to 0.091 ppm PCE during the 2012 sampling event (post IRM see below). The supplemental investigation confirmed that the bedrock zone does not appear to be contaminated with the chlorinated solvents. Chlorinated solvent vapors were detected during soil vapor evaluations at the 279 Franklin Street parcel. Investigation of off-site areas by the DEC on adjoining properties revealed an extensive elongated off-site chlorinated VOC plume in shallow groundwater. The off site impacts to deep groundwater zone were limited to one of the off-site sampling points hydraulically downgradient of the BCP site (south of the BCP site). Dissolved levels of PCE and its breakdown products at this off-site deep groundwater well have been found at 0.101 ppm total VOCs. Post-IRM: An IRM was implemented in 2008 on the site to address VOC contamination in vadose zone soils and in the shallow groundwater zone. The vapor extraction system appeared to have effectively addressed vadose zone contamination in the soil column above the groundwater source plume. However PCE at shallow well MW-5 rebounded to 70 ppm based upon sampling in 2012. Additional measures to remediate chlorinated VOC contamination in shallow and deep groundwater zones were necessary. An additional investigative boring and deep monitoring well to further assess deep groundwater impacts was installed in 2012 at 267 Franklin Street (adjoining BCP site C915237). Deep groundwater sampling confirmed dissolved chlorinated VOC contamination at levels up to 0.069 ppm total VOCs at this new deep well. The SVE system reduced the chlorinated VOCs in the vadose (soil) zone in the source area to restricted residential SCG guidance levels. The extent of the dissolved shallow plume, vapor intrusion (VI) from the chlorinated solvents was a concern with offsite neighboring structures. A soil VI evaluation completed by the DEC in 2008 revealed PCE impacts to indoor air quality inside the 267 Franklin Street apartment building. The DEC subsequently installed a sub-slab depressurization system (SSDS) inside the apartment building to address VI and reduce indoor air concentrations of PCE. This

BUFFALO DEVELOPMENT CORP - BCP SITE NO C915208 (Continued) **1000291112**

building and parcel were subsequently acquired by the applicant and allowed into the BCP as site C915237. Vapor intrusion was confirmed in another off-site building and an SSDS was installed in 2012. Additional investigations were required to assess off-site impacts, health and safety concerns, the presence of DNAPL, and bedrock aquifer contamination. Offsite monitoring by DEC confirmed an elongated PCE plume has migrated in a southwesterly direction across Franklin Street. Post Remedial Action: A DEC approved in-situ remedial action measure was implemented in April 2014 and consisted of the following: ENHANCED SHALLOW GROUNDWATER BIOREMEDIATION In-situ shallow groundwater treatment was implemented in 2014 for site C915208 residual source only. Enhanced natural biodegradation of chlorinated VOCs (PCE and its breakdown products)was implemented in an area with the highest residual VOC contaminated shallow groundwater in the immediate vicinity of MW-5 (residual source area at Site C915208) to propagate the biological breakdown of contaminants through anaerobic reductive dechlorination. A mix of nutrients, buffers and chemical agents were injected into the subsurface to a target depth between 10 and 20 feet below ground surface to promote dechlorinating microbe growth. The microbial reductive dechlorination process was also enhanced with the injection of micron scale zero valent iron (ZVI) for physio-chemical abiotic reduction of residual chlorinated VOCs. No specific remediation measures to address residual chlorinated VOC contamination in the deep groundwater zone was proposed or implemented. PLUME REDUCTION Plume reduction will be accomplished by treating the groundwater for chlorinated VOCs via in-situ treatment methods such that the groundwater leaving the site has been effectively treated to water quality criteria. At this site, the shallow chlorinated VOC contaminant plume has migrated onto an adjoining property at 275 Franklin Street which is part of the adjoining BCP project site C915208 (275 Franklin Street Site). In 2014, a contaminant plume reduction measure was accomplished by injecting in-situ treatment materials along a series of injection points 10 to 20 feet in depth along accessible western and southern perimeter areas of the site forming a vertical permeable reactive treatment zone. The in-situ treatment materials utilized the same materials used in the source area treatment system to promote enhanced natural anaerobic reductive dechlorination and physio-chemical reduction of residual chlorinated VOC contamination in the shallow groundwater zone. No specific remediation measures were implemented to address off-site migration of residual chlorinated VOC contamination in the deep groundwater zone.

Health Problem: Access to the site is unrestricted. However, contact with contaminated soil or groundwater is unlikely unless people dig below the ground surface. Contaminated groundwater at the site is not used for drinking or other purposes and the site is served by a public water supply that obtains water from a different source not affected by this contamination. Volatile organic compounds in the groundwater may move into the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. The potential exists for the inhalation of site contaminants due to soil vapor intrusion for any future on-site redevelopment and occupancy.

Dump: False

BUFFALO DEVELOPMENT CORP - BCP SITE NO C915208 (Continued) **1000291112**

Structure: False
Lagoon: False
Landfill: False
Pond: False
Disp Start: Not reported
Disp Term: Not reported
Lat/Long: 42:53'28 / 78:52'28
Dell: False
Record Add: 7/13/2006 1:05:00 PM
Record Upd: 10/1/2012 12:10:00 PM
Updated By: ldennist
Own Op: Document Repository
Sub Type: NNN
Owner Name: Michael Mahaney
Owner Company: Buffalo & Erie County Public Library
Owner Address: 1 LaFayette Square
Owner Addr2: Not reported
Owner City,St,Zip: Buffalo, NY 14203
Owner Country: United States of America
Own Op: Applicant/Requestor
Sub Type: P03
Owner Name: Mark D. Croce
Owner Company: Buffalo Development Corporation
Owner Address: 257 Franklin Street
Owner Addr2: Not reported
Owner City,St,Zip: Buffalo, NY 14202
Owner Country: United States of America
HW Code: C915208
Waste Type: tetrachloroethene (PCE)
Waste Quantity: UNKNOWN
Waste Code: F002
HW Code: C915208
Waste Type: tetrachloroethene (PCE)
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915208
Waste Type: TRICHLOROETHENE (TCE)
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915208
Waste Type: TETRACHLOROETHYLENE (PCE)
Waste Quantity: UNKNOWN
Waste Code: Not reported
Crossref ID: B9-0722-06-07
Cross Ref Type Code: 23
Cross Ref Type: Agreement/Consent Order Number
Record Added Date: 4/17/2009 11:37:00 AM
Record Updated: 4/17/2009 11:37:00 AM
Updated By: THKNIZEK
Crossref ID: C915237
Cross Ref Type Code: 22
Cross Ref Type: BCP Site ID
Record Added Date: 7/8/2010 2:40:00 PM
Record Updated: 7/8/2010 2:40:00 PM
Updated By: MOBARRIE

Site Code: 366739

BUFFALO DEVELOPMENT CORP - BCP SITE NO C915208 (Continued) **1000291112**

Control Name: Site Management Plan
HW Code: C915208
Control Code: 32
Control Type: INST
Dt record added: 06/19/2013
Dt rec updated: 05/09/2017
Updated By: CRSTANIS
Site Code: 366739
Site Description: Location: The brownfield site encompasses two contiguous parcels in the City of Buffalo, Erie County, and are identified as 275-277 Franklin Street (~0.13 acres), and 279 Franklin Street (~0.12 acres). The site is situated in an urban commercial district. Site Features: The site is paved with asphalt and is currently used as a commercial surface parking lot approximately 0.25 acres in size. Current Zoning and Land Use: Both contiguous parcels that constitute the site are situated in the Downtown Opportunity (DO) zoning district which currently contains a mix of uses including apartment residences, restaurants, retail, entertainment, office and parking. Permitted use in the DO zoning district includes residential, office, (limited) retail, restaurant, hotel and entertainment. The surrounding parcels are currently used for a combination of commercial uses including surface parking, restaurant and entertainment. Past Use Of The Site: Record information concerning the use of both parcels dates back to the late 1800s where the area was predominantly closely spaced urban residential interspersed with commercial businesses and establishments. 279 Franklin Street: This lot was used for residential purposes from the late 1800s through the 1950s, and as a parking lot from the early 1980s to present. Previous use of the lot does not reveal any recognized environmental concerns. 275-277 Franklin Street: In the late 1800s, the lot contained a residence with a carriage shed facing Asbury Alley. By the 1950s, the residence was replaced with a commercial use building, and record information indicates that the structure was used by a dry cleaning business from approximately 1951 through the early 2000s. This parcel became delinquent in property taxes and the City of Buffalo foreclosed on the parcel for back taxes. The parcel was sold by the City in 2004. The building on the parcel was demolished in 2004 by the applicant. The building area of the parcel was subsequently paved over and is currently being used as a commercial surface parking lot. According to the BCP application, future development plans for the site and adjoining BCP site (C915237) consists of a hotel with conference and parking facilities. As of 2015, development plans have changed and the site has been marketed for lease development. Site Geology and Hydrogeology: Overburden: The site is located within the Erie-Ontario lake plain physiographic province, which is typified by little topographic relief and gentle slope toward Lake Erie, except in the immediate vicinity of major drainage ways. The surficial geology of the Lake Erie plain generally consists of a thin glacial till layer, glaciolacustrine (lake-laid laminated silts and clays) deposits, alluvium, and soils derived by these deposits. Glacial till deposits were not encountered at the site except for a thin layer (1 to 2 feet thick) above limestone bedrock. The site geology consists of a lake-laid sandy ridge deposit about 40 to 45 feet thick with several inter-bedded silty clay lenses. The site is also covered by a thin soil/fill layer about 2 to 5 feet thick and is found throughout the site. The fill is characteristic of urban fill common in the City of Buffalo. Bedrock: The site is situated over the Onondaga formation

BUFFALO DEVELOPMENT CORP - BCP SITE NO C915208 (Continued) **1000291112**

limestone. Limestone bedrock was encountered about 52 feet below the surface. Hydrogeology: Unconfined shallow groundwater was encountered within the native soils at depths of approximately 10 to 12 feet below ground surface. Because of a silty clay soil lens within the sandy soil profile at a depth of approximately 25 to 30 feet below ground surface, the site has a defined shallow and deep groundwater zone. Site groundwater flow gradient (shallow and deep) appears to flow in a south/southwest direction. Regional groundwater appears to flow west/southwest toward Lake Erie and confluence of the Buffalo River.

Env Problem: Pre-Remediation: An RI commenced in late 2006 to supplement earlier environmental site assessment in 2004. Results from this work revealed chlorinated solvents commonly used by dry cleaners (tetrachloroethene [PCE]) in soils up to 20,000 microgram/kilogram (ug/kg) PCE and in shallow groundwater up to 19 parts per million (ppm) PCE at 275-277 Franklin St parcel. The water quality standard for PCE is 0.005 ppm. The source area in shallow groundwater contamination appears to be centered around MW-5. The RI investigation included an adjoining lot at 267 Franklin Street (Site C915237) currently owned by the applicant revealed chlorinated solvents in shallow groundwater at levels up to 18 ppm for PCE. A supplemental site investigation was conducted in 2008 to develop an IRM for the site. Due to a silty clay soil lens midway between the surface and bedrock, two distinct groundwater zones exist at the site. The silty clay soil lens has limited some downward migration of the dissolved contamination. However, the 2008 supplemental investigation confirmed that deeper groundwater zone is contaminated with the chlorinated solvents, with one monitoring well containing 9.4 ppm PCE. PCE levels at this monitoring point have dropped to 0.091 ppm PCE during the 2012 sampling event (post IRM see below). The supplemental investigation confirmed that the bedrock zone does not appear to be contaminated with the chlorinated solvents. Chlorinated solvent vapors were detected during soil vapor evaluations at the 279 Franklin Street parcel. Investigation of off-site areas by the DEC on adjoining properties revealed an extensive elongated off-site chlorinated VOC plume in shallow groundwater. The off site impacts to deep groundwater zone were limited to one of the off-site sampling points hydraulically downgradient of the BCP site (south of the BCP site). Dissolved levels of PCE and its breakdown products at this off-site deep groundwater well have been found at 0.101 ppm total VOCs. Post-IRM: An IRM was implemented in 2008 on the site to address VOC contamination in vadose zone soils and in the shallow groundwater zone. The vapor extraction system appeared to have effectively addressed vadose zone contamination in the soil column above the groundwater source plume. However PCE at shallow well MW-5 rebounded to 70 ppm based upon sampling in 2012. Additional measures to remediate chlorinated VOC contamination in shallow and deep groundwater zones were necessary. An additional investigative boring and deep monitoring well to further assess deep groundwater impacts was installed in 2012 at 267 Franklin Street (adjoining BCP site C915237). Deep groundwater sampling confirmed dissolved chlorinated VOC contamination at levels up to 0.069 ppm total VOCs at this new deep well. The SVE system reduced the chlorinated VOCs in the vadose (soil) zone in the source area to restricted residential SCG guidance levels. The extent of the dissolved shallow plume, vapor intrusion (VI) from the chlorinated solvents was a concern with offsite

BUFFALO DEVELOPMENT CORP - BCP SITE NO C915208 (Continued) **1000291112**

neighboring structures. A soil VI evaluation completed by the DEC in 2008 revealed PCE impacts to indoor air quality inside the 267 Franklin Street apartment building. The DEC subsequently installed a sub-slab depressurization system (SSDS) inside the apartment building to address VI and reduce indoor air concentrations of PCE. This building and parcel were subsequently acquired by the applicant and allowed into the BCP as site C915237. Vapor intrusion was confirmed in another off-site building and an SSDS was installed in 2012. Additional investigations were required to assess off-site impacts, health and safety concerns, the presence of DNAPL, and bedrock aquifer contamination. Offsite monitoring by DEC confirmed an elongated PCE plume has migrated in a southwesterly direction across Franklin Street. Post Remedial Action: A DEC approved in-situ remedial action measure was implemented in April 2014 and consisted of the following: ENHANCED SHALLOW GROUNDWATER BIOREMEDIATION In-situ shallow groundwater treatment was implemented in 2014 for site C915208 residual source only. Enhanced natural biodegradation of chlorinated VOCs (PCE and its breakdown products)was implemented in an area with the highest residual VOC contaminated shallow groundwater in the immediate vicinity of MW-5 (residual source area at Site C915208) to propagate the biological breakdown of contaminants through anaerobic reductive dechlorination. A mix of nutrients, buffers and chemical agents were injected into the subsurface to a target depth between 10 and 20 feet below ground surface to promote dechlorinating microbe growth. The microbial reductive dechlorination process was also enhanced with the injection of micron scale zero valent iron (ZVI) for physio-chemical abiotic reduction of residual chlorinated VOCs. No specific remediation measures to address residual chlorinated VOC contamination in the deep groundwater zone was proposed or implemented. PLUME REDUCTION Plume reduction will be accomplished by treating the groundwater for chlorinated VOCs via in-situ treatment methods such that the groundwater leaving the site has been effectively treated to water quality criteria. At this site, the shallow chlorinated VOC contaminant plume has migrated onto an adjoining property at 275 Franklin Street which is part of the adjoining BCP project site C915208 (275 Franklin Street Site). In 2014, a contaminant plume reduction measure was accomplished by injecting in-situ treatment materials along a series of injection points 10 to 20 feet in depth along accessible western and southern perimeter areas of the site forming a vertical permeable reactive treatment zone. The in-situ treatment materials utilized the same materials used in the source area treatment system to promote enhanced natural anaerobic reductive dechlorination and physio-chemical reduction of residual chlorinated VOC contamination in the shallow groundwater zone. No specific remediation measures were implemented to address off-site migration of residual chlorinated VOC contamination in the deep groundwater zone.

Health Problem: Access to the site is unrestricted. However, contact with contaminated soil or groundwater is unlikely unless people dig below the ground surface. Contaminated groundwater at the site is not used for drinking or other purposes and the site is served by a public water supply that obtains water from a different source not affected by this contamination. Volatile organic compounds in the groundwater may move into the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas

BUFFALO DEVELOPMENT CORP - BCP SITE NO C915208 (Continued) **1000291112**

from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. The potential exists for the inhalation of site contaminants due to soil vapor intrusion for any future on-site redevelopment and occupancy.

Dump: False
Structure: False
Lagoon: False
Landfill: False
Pond: False
Disp Start: Not reported
Disp Term: Not reported
Lat/Long: 42:53'28 / 78:52'28
Dell: False
Record Add: 7/13/2006 1:05:00 PM
Record Upd: 10/1/2012 12:10:00 PM
Updated By: ldennist
Own Op: Document Repository
Sub Type: NNN
Owner Name: Michael Mahaney
Owner Company: Buffalo & Erie County Public Library
Owner Address: 1 LaFayette Square
Owner Addr2: Not reported
Owner City,St,Zip: Buffalo, NY 14203
Owner Country: United States of America
Own Op: Applicant/Requestor
Sub Type: P03
Owner Name: Mark D. Croce
Owner Company: Buffalo Development Corporation
Owner Address: 257 Franklin Street
Owner Addr2: Not reported
Owner City,St,Zip: Buffalo, NY 14202
Owner Country: United States of America
HW Code: C915208
Waste Type: tetrachloroethene (PCE)
Waste Quantity: UNKNOWN
Waste Code: F002
HW Code: C915208
Waste Type: tetrachloroethene (PCE)
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915208
Waste Type: TRICHLOROETHENE (TCE)
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915208
Waste Type: TETRACHLOROETHYLENE (PCE)
Waste Quantity: UNKNOWN
Waste Code: Not reported
Crossref ID: B9-0722-06-07
Cross Ref Type Code: 23
Cross Ref Type: Agreement/Consent Order Number
Record Added Date: 4/17/2009 11:37:00 AM
Record Updated: 4/17/2009 11:37:00 AM
Updated By: THKNIZEK
Crossref ID: C915237
Cross Ref Type Code: 22
Cross Ref Type: BCP Site ID

BUFFALO DEVELOPMENT CORP - BCP SITE NO C915208 (Continued) **1000291112**

Record Added Date: 7/8/2010 2:40:00 PM
Record Updated: 7/8/2010 2:40:00 PM
Updated By: MOBARRIE

Site Code: 366739
Control Name: IC/EC Plan
HW Code: C915208
Control Code: 34
Control Type: INST
Dt record added: 06/19/2013
Dt rec updated: 05/09/2017
Updated By: CRSTANIS
Site Code: 366739
Site Description: Location: The brownfield site encompasses two contiguous parcels in the City of Buffalo, Erie County, and are identified as 275-277 Franklin Street (~0.13 acres), and 279 Franklin Street (~0.12 acres). The site is situated in an urban commercial district. Site Features: The site is paved with asphalt and is currently used as a commercial surface parking lot approximately 0.25 acres in size. Current Zoning and Land Use: Both contiguous parcels that constitute the site are situated in the Downtown Opportunity (DO) zoning district which currently contains a mix of uses including apartment residences, restaurants, retail, entertainment, office and parking. Permitted use in the DO zoning district includes residential, office, (limited) retail, restaurant, hotel and entertainment. The surrounding parcels are currently used for a combination of commercial uses including surface parking, restaurant and entertainment. Past Use Of The Site: Record information concerning the use of both parcels dates back to the late 1800s where the area was predominantly closely spaced urban residential interspersed with commercial businesses and establishments. 279 Franklin Street: This lot was used for residential purposes from the late 1800s through the 1950s, and as a parking lot from the early 1980s to present. Previous use of the lot does not reveal any recognized environmental concerns. 275-277 Franklin Street: In the late 1800s, the lot contained a residence with a carriage shed facing Asbury Alley. By the 1950s, the residence was replaced with a commercial use building, and record information indicates that the structure was used by a dry cleaning business from approximately 1951 through the early 2000s. This parcel became delinquent in property taxes and the City of Buffalo foreclosed on the parcel for back taxes. The parcel was sold by the City in 2004. The building on the parcel was demolished in 2004 by the applicant. The building area of the parcel was subsequently paved over and is currently being used as a commercial surface parking lot. According to the BCP application, future development plans for the site and adjoining BCP site (C915237) consists of a hotel with conference and parking facilities. As of 2015, development plans have changed and the site has been marketed for lease development. Site Geology and Hydrogeology: Overburden: The site is located within the Erie-Ontario lake plain physiographic province, which is typified by little topographic relief and gentle slope toward Lake Erie, except in the immediate vicinity of major drainage ways. The surficial geology of the Lake Erie plain generally consists of a thin glacial till layer, glaciolacustrine (lake-laid laminated silts and clays) deposits, alluvium, and soils derived by these deposits. Glacial till deposits were not encountered at the site except for a thin layer (1 to 2 feet thick) above limestone bedrock. The site geology consists of a

BUFFALO DEVELOPMENT CORP - BCP SITE NO C915208 (Continued) **1000291112**

lake-laid sandy ridge deposit about 40 to 45 feet thick with several inter-bedded silty clay lenses. The site is also covered by a thin soil/fill layer about 2 to 5 feet thick and is found throughout the site. The fill is characteristic of urban fill common in the City of Buffalo. Bedrock: The site is situated over the Onondaga formation limestone. Limestone bedrock was encountered about 52 feet below the surface. Hydrogeology: Unconfined shallow groundwater was encountered within the native soils at depths of approximately 10 to 12 feet below ground surface. Because of a silty clay soil lens within the sandy soil profile at a depth of approximately 25 to 30 feet below ground surface, the site has a defined shallow and deep groundwater zone. Site groundwater flow gradient (shallow and deep) appears to flow in a south/southwest direction. Regional groundwater appears to flow west/southwest toward Lake Erie and confluence of the Buffalo River.

Env Problem: Pre-Remediation: An RI commenced in late 2006 to supplement earlier environmental site assessment in 2004. Results from this work revealed chlorinated solvents commonly used by dry cleaners (tetrachloroethene [PCE]) in soils up to 20,000 microgram/kilogram (ug/kg) PCE and in shallow groundwater up to 19 parts per million (ppm) PCE at 275-277 Franklin St parcel. The water quality standard for PCE is 0.005 ppm. The source area in shallow groundwater contamination appears to be centered around MW-5. The RI investigation included an adjoining lot at 267 Franklin Street (Site C915237) currently owned by the applicant revealed chlorinated solvents in shallow groundwater at levels up to 18 ppm for PCE. A supplemental site investigation was conducted in 2008 to develop an IRM for the site. Due to a silty clay soil lens midway between the surface and bedrock, two distinct groundwater zones exist at the site. The silty clay soil lens has limited some downward migration of the dissolved contamination. However, the 2008 supplemental investigation confirmed that deeper groundwater zone is contaminated with the chlorinated solvents, with one monitoring well containing 9.4 ppm PCE. PCE levels at this monitoring point have dropped to 0.091 ppm PCE during the 2012 sampling event (post IRM see below). The supplemental investigation confirmed that the bedrock zone does not appear to be contaminated with the chlorinated solvents. Chlorinated solvent vapors were detected during soil vapor evaluations at the 279 Franklin Street parcel. Investigation of off-site areas by the DEC on adjoining properties revealed an extensive elongated off-site chlorinated VOC plume in shallow groundwater. The off site impacts to deep groundwater zone were limited to one of the off-site sampling points hydraulically downgradient of the BCP site (south of the BCP site). Dissolved levels of PCE and its breakdown products at this off-site deep groundwater well have been found at 0.101 ppm total VOCs. Post-IRM: An IRM was implemented in 2008 on the site to address VOC contamination in vadose zone soils and in the shallow groundwater zone. The vapor extraction system appeared to have effectively addressed vadose zone contamination in the soil column above the groundwater source plume. However PCE at shallow well MW-5 rebounded to 70 ppm based upon sampling in 2012. Additional measures to remediate chlorinated VOC contamination in shallow and deep groundwater zones were necessary. An additional investigative boring and deep monitoring well to further assess deep groundwater impacts was installed in 2012 at 267 Franklin Street (adjoining BCP site C915237). Deep groundwater sampling confirmed dissolved chlorinated

BUFFALO DEVELOPMENT CORP - BCP SITE NO C915208 (Continued) **1000291112**

VOC contamination at levels up to 0.069 ppm total VOCs at this new deep well. The SVE system reduced the chlorinated VOCs in the vadose (soil) zone in the source area to restricted residential SCG guidance levels. The extent of the dissolved shallow plume, vapor intrusion (VI) from the chlorinated solvents was a concern with offsite neighboring structures. A soil VI evaluation completed by the DEC in 2008 revealed PCE impacts to indoor air quality inside the 267 Franklin Street apartment building. The DEC subsequently installed a sub-slab depressurization system (SSDS) inside the apartment building to address VI and reduce indoor air concentrations of PCE. This building and parcel were subsequently acquired by the applicant and allowed into the BCP as site C915237. Vapor intrusion was confirmed in another off-site building and an SSDS was installed in 2012. Additional investigations were required to assess off-site impacts, health and safety concerns, the presence of DNAPL, and bedrock aquifer contamination. Offsite monitoring by DEC confirmed an elongated PCE plume has migrated in a southwesterly direction across Franklin Street. Post Remedial Action: A DEC approved in-situ remedial action measure was implemented in April 2014 and consisted of the following: ENHANCED SHALLOW GROUNDWATER BIOREMEDIATION In-situ shallow groundwater treatment was implemented in 2014 for site C915208 residual source only. Enhanced natural biodegradation of chlorinated VOCs (PCE and its breakdown products)was implemented in an area with the highest residual VOC contaminated shallow groundwater in the immediate vicinity of MW-5 (residual source area at Site C915208) to propagate the biological breakdown of contaminants through anaerobic reductive dechlorination. A mix of nutrients, buffers and chemical agents were injected into the subsurface to a target depth between 10 and 20 feet below ground surface to promote dechlorinating microbe growth. The microbial reductive dechlorination process was also enhanced with the injection of micron scale zero valent iron (ZVI) for physio-chemical abiotic reduction of residual chlorinated VOCs. No specific remediation measures to address residual chlorinated VOC contamination in the deep groundwater zone was proposed or implemented. PLUME REDUCTION Plume reduction will be accomplished by treating the groundwater for chlorinated VOCs via in-situ treatment methods such that the groundwater leaving the site has been effectively treated to water quality criteria. At this site, the shallow chlorinated VOC contaminant plume has migrated onto an adjoining property at 275 Franklin Street which is part of the adjoining BCP project site C915208 (275 Franklin Street Site). In 2014, a contaminant plume reduction measure was accomplished by injecting in-situ treatment materials along a series of injection points 10 to 20 feet in depth along accessible western and southern perimeter areas of the site forming a vertical permeable reactive treatment zone. The in-situ treatment materials utilized the same materials used in the source area treatment system to promote enhanced natural anaerobic reductive dechlorination and physio-chemical reduction of residual chlorinated VOC contamination in the shallow groundwater zone. No specific remediation measures were implemented to address off-site migration of residual chlorinated VOC contamination in the deep groundwater zone.

Health Problem: Access to the site is unrestricted. However, contact with contaminated soil or groundwater is unlikely unless people dig below the ground surface. Contaminated groundwater at the site is not used for drinking or other purposes and the site is served by a public

BUFFALO DEVELOPMENT CORP - BCP SITE NO C915208 (Continued) **1000291112**

water supply that obtains water from a different source not affected by this contamination. Volatile organic compounds in the groundwater may move into the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. The potential exists for the inhalation of site contaminants due to soil vapor intrusion for any future on-site redevelopment and occupancy.

Dump: False
Structure: False
Lagoon: False
Landfill: False
Pond: False
Disp Start: Not reported
Disp Term: Not reported
Lat/Long: 42:53'28 / 78:52'28
Dell: False
Record Add: 7/13/2006 1:05:00 PM
Record Upd: 10/1/2012 12:10:00 PM
Updated By: ldennist
Own Op: Document Repository
Sub Type: NNN
Owner Name: Michael Mahaney
Owner Company: Buffalo & Erie County Public Library
Owner Address: 1 LaFayette Square
Owner Addr2: Not reported
Owner City,St,Zip: Buffalo, NY 14203
Owner Country: United States of America
Own Op: Applicant/Requestor
Sub Type: P03
Owner Name: Mark D. Croce
Owner Company: Buffalo Development Corporation
Owner Address: 257 Franklin Street
Owner Addr2: Not reported
Owner City,St,Zip: Buffalo, NY 14202
Owner Country: United States of America
HW Code: C915208
Waste Type: tetrachloroethene (PCE)
Waste Quantity: UNKNOWN
Waste Code: F002
HW Code: C915208
Waste Type: tetrachloroethene (PCE)
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915208
Waste Type: TRICHLOROETHENE (TCE)
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915208
Waste Type: TETRACHLOROETHYLENE (PCE)
Waste Quantity: UNKNOWN
Waste Code: Not reported
Crossref ID: B9-0722-06-07
Cross Ref Type Code: 23
Cross Ref Type: Agreement/Consent Order Number
Record Added Date: 4/17/2009 11:37:00 AM

BUFFALO DEVELOPMENT CORP - BCP SITE NO C915208 (Continued) **1000291112**

Record Updated: 4/17/2009 11:37:00 AM
Updated By: THKNIZEK
Crossref ID: C915237
Cross Ref Type Code: 22
Cross Ref Type: BCP Site ID
Record Added Date: 7/8/2010 2:40:00 PM
Record Updated: 7/8/2010 2:40:00 PM
Updated By: MOBARRIE

Site Code: 366739
Control Name: Ground Water Use Restriction
HW Code: C915208
Control Code: 08
Control Type: INST
Dt record added: 06/19/2013
Dt rec updated: 05/09/2017
Updated By: CRSTANIS
Site Code: 366739
Site Description: Location: The brownfield site encompasses two contiguous parcels in the City of Buffalo, Erie County, and are identified as 275-277 Franklin Street (~0.13 acres), and 279 Franklin Street (~0.12 acres). The site is situated in an urban commercial district. Site Features: The site is paved with asphalt and is currently used as a commercial surface parking lot approximately 0.25 acres in size. Current Zoning and Land Use: Both contiguous parcels that constitute the site are situated in the Downtown Opportunity (DO) zoning district which currently contains a mix of uses including apartment residences, restaurants, retail, entertainment, office and parking. Permitted use in the DO zoning district includes residential, office, (limited) retail, restaurant, hotel and entertainment. The surrounding parcels are currently used for a combination of commercial uses including surface parking, restaurant and entertainment. Past Use Of The Site: Record information concerning the use of both parcels dates back to the late 1800s where the area was predominantly closely spaced urban residential interspersed with commercial businesses and establishments. 279 Franklin Street: This lot was used for residential purposes from the late 1800s through the 1950s, and as a parking lot from the early 1980s to present. Previous use of the lot does not reveal any recognized environmental concerns. 275-277 Franklin Street: In the late 1800s, the lot contained a residence with a carriage shed facing Asbury Alley. By the 1950s, the residence was replaced with a commercial use building, and record information indicates that the structure was used by a dry cleaning business from approximately 1951 through the early 2000s. This parcel became delinquent in property taxes and the City of Buffalo foreclosed on the parcel for back taxes. The parcel was sold by the City in 2004. The building on the parcel was demolished in 2004 by the applicant. The building area of the parcel was subsequently paved over and is currently being used as a commercial surface parking lot. According to the BCP application, future development plans for the site and adjoining BCP site (C915237) consists of a hotel with conference and parking facilities. As of 2015, development plans have changed and the site has been marketed for lease development. Site Geology and Hydrogeology: Overburden: The site is located within the Erie-Ontario lake plain physiographic province, which is typified by little topographic relief and gentle slope toward Lake Erie, except in the immediate vicinity of major drainage ways. The surficial geology of

BUFFALO DEVELOPMENT CORP - BCP SITE NO C915208 (Continued) **1000291112**

the Lake Erie plain generally consists of a thin glacial till layer, glaciolacustrine (lake-laid laminated silts and clays) deposits, alluvium, and soils derived by these deposits. Glacial till deposits were not encountered at the site except for a thin layer (1 to 2 feet thick) above limestone bedrock. The site geology consists of a lake-laid sandy ridge deposit about 40 to 45 feet thick with several inter-bedded silty clay lenses. The site is also covered by a thin soil/fill layer about 2 to 5 feet thick and is found throughout the site. The fill is characteristic of urban fill common in the City of Buffalo. Bedrock: The site is situated over the Onondaga formation limestone. Limestone bedrock was encountered about 52 feet below the surface. Hydrogeology: Unconfined shallow groundwater was encountered within the native soils at depths of approximately 10 to 12 feet below ground surface. Because of a silty clay soil lens within the sandy soil profile at a depth of approximately 25 to 30 feet below ground surface, the site has a defined shallow and deep groundwater zone. Site groundwater flow gradient (shallow and deep) appears to flow in a south/southwest direction. Regional groundwater appears to flow west/southwest toward Lake Erie and confluence of the Buffalo River.

Env Problem: Pre-Remediation: An RI commenced in late 2006 to supplement earlier environmental site assessment in 2004. Results from this work revealed chlorinated solvents commonly used by dry cleaners (tetrachloroethene [PCE]) in soils up to 20,000 microgram/kilogram (ug/kg) PCE and in shallow groundwater up to 19 parts per million (ppm) PCE at 275-277 Franklin St parcel. The water quality standard for PCE is 0.005 ppm. The source area in shallow groundwater contamination appears to be centered around MW-5. The RI investigation included an adjoining lot at 267 Franklin Street (Site C915237) currently owned by the applicant revealed chlorinated solvents in shallow groundwater at levels up to 18 ppm for PCE. A supplemental site investigation was conducted in 2008 to develop an IRM for the site. Due to a silty clay soil lens midway between the surface and bedrock, two distinct groundwater zones exist at the site. The silty clay soil lens has limited some downward migration of the dissolved contamination. However, the 2008 supplemental investigation confirmed that deeper groundwater zone is contaminated with the chlorinated solvents, with one monitoring well containing 9.4 ppm PCE. PCE levels at this monitoring point have dropped to 0.091 ppm PCE during the 2012 sampling event (post IRM see below). The supplemental investigation confirmed that the bedrock zone does not appear to be contaminated with the chlorinated solvents. Chlorinated solvent vapors were detected during soil vapor evaluations at the 279 Franklin Street parcel. Investigation of off-site areas by the DEC on adjoining properties revealed an extensive elongated off-site chlorinated VOC plume in shallow groundwater. The off site impacts to deep groundwater zone were limited to one of the off-site sampling points hydraulically downgradient of the BCP site (south of the BCP site). Dissolved levels of PCE and its breakdown products at this off-site deep groundwater well have been found at 0.101 ppm total VOCs. Post-IRM: An IRM was implemented in 2008 on the site to address VOC contamination in vadose zone soils and in the shallow groundwater zone. The vapor extraction system appeared to have effectively addressed vadose zone contamination in the soil column above the groundwater source plume. However PCE at shallow well MW-5 rebounded to 70 ppm based upon sampling in 2012. Additional measures to

BUFFALO DEVELOPMENT CORP - BCP SITE NO C915208 (Continued) **1000291112**

remediate chlorinated VOC contamination in shallow and deep groundwater zones were necessary. An additional investigative boring and deep monitoring well to further assess deep groundwater impacts was installed in 2012 at 267 Franklin Street (adjoining BCP site C915237). Deep groundwater sampling confirmed dissolved chlorinated VOC contamination at levels up to 0.069 ppm total VOCs at this new deep well. The SVE system reduced the chlorinated VOCs in the vadose (soil) zone in the source area to restricted residential SCG guidance levels. The extent of the dissolved shallow plume, vapor intrusion (VI) from the chlorinated solvents was a concern with offsite neighboring structures. A soil VI evaluation completed by the DEC in 2008 revealed PCE impacts to indoor air quality inside the 267 Franklin Street apartment building. The DEC subsequently installed a sub-slab depressurization system (SSDS) inside the apartment building to address VI and reduce indoor air concentrations of PCE. This building and parcel were subsequently acquired by the applicant and allowed into the BCP as site C915237. Vapor intrusion was confirmed in another off-site building and an SSDS was installed in 2012. Additional investigations were required to assess off-site impacts, health and safety concerns, the presence of DNAPL, and bedrock aquifer contamination. Offsite monitoring by DEC confirmed an elongated PCE plume has migrated in a southwesterly direction across Franklin Street. Post Remedial Action: A DEC approved in-situ remedial action measure was implemented in April 2014 and consisted of the following: ENHANCED SHALLOW GROUNDWATER BIOREMEDIATION In-situ shallow groundwater treatment was implemented in 2014 for site C915208 residual source only. Enhanced natural biodegradation of chlorinated VOCs (PCE and its breakdown products)was implemented in an area with the highest residual VOC contaminated shallow groundwater in the immediate vicinity of MW-5 (residual source area at Site C915208) to propagate the biological breakdown of contaminants through anaerobic reductive dechlorination. A mix of nutrients, buffers and chemical agents were injected into the subsurface to a target depth between 10 and 20 feet below ground surface to promote dechlorinating microbe growth. The microbial reductive dechlorination process was also enhanced with the injection of micron scale zero valent iron (ZVI) for physio-chemical abiotic reduction of residual chlorinated VOCs. No specific remediation measures to address residual chlorinated VOC contamination in the deep groundwater zone was proposed or implemented. PLUME REDUCTION Plume reduction will be accomplished by treating the groundwater for chlorinated VOCs via in-situ treatment methods such that the groundwater leaving the site has been effectively treated to water quality criteria. At this site, the shallow chlorinated VOC contaminant plume has migrated onto an adjoining property at 275 Franklin Street which is part of the adjoining BCP project site C915208 (275 Franklin Street Site). In 2014, a contaminant plume reduction measure was accomplished by injecting in-situ treatment materials along a series of injection points 10 to 20 feet in depth along accessible western and southern perimeter areas of the site forming a vertical permeable reactive treatment zone. The in-situ treatment materials utilized the same materials used in the source area treatment system to promote enhanced natural anaerobic reductive dechlorination and physio-chemical reduction of residual chlorinated VOC contamination in the shallow groundwater zone. No specific remediation measures were implemented to address off-site migration of residual chlorinated VOC contamination in the deep groundwater

BUFFALO DEVELOPMENT CORP - BCP SITE NO C915208 (Continued) **1000291112**

	zone.
Health Problem:	Access to the site is unrestricted. However, contact with contaminated soil or groundwater is unlikely unless people dig below the ground surface. Contaminated groundwater at the site is not used for drinking or other purposes and the site is served by a public water supply that obtains water from a different source not affected by this contamination. Volatile organic compounds in the groundwater may move into the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. The potential exists for the inhalation of site contaminants due to soil vapor intrusion for any future on-site redevelopment and occupancy.
Dump:	False
Structure:	False
Lagoon:	False
Landfill:	False
Pond:	False
Disp Start:	Not reported
Disp Term:	Not reported
Lat/Long:	42:53’28 / 78:52’28
Dell:	False
Record Add:	7/13/2006 1:05:00 PM
Record Upd:	10/1/2012 12:10:00 PM
Updated By:	ldennist
Own Op:	Document Repository
Sub Type:	NNN
Owner Name:	Michael Mahaney
Owner Company:	Buffalo & Erie County Public Library
Owner Address:	1 LaFayette Square
Owner Addr2:	Not reported
Owner City,St,Zip:	Buffalo, NY 14203
Owner Country:	United States of America
Own Op:	Applicant/Requestor
Sub Type:	P03
Owner Name:	Mark D. Croce
Owner Company:	Buffalo Development Corporation
Owner Address:	257 Franklin Street
Owner Addr2:	Not reported
Owner City,St,Zip:	Buffalo, NY 14202
Owner Country:	United States of America
HW Code:	C915208
Waste Type:	tetrachloroethene (PCE)
Waste Quantity:	UNKNOWN
Waste Code:	F002
HW Code:	C915208
Waste Type:	tetrachloroethene (PCE)
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915208
Waste Type:	TRICHLOROETHENE (TCE)
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915208
Waste Type:	TETRACHLOROETHYLENE (PCE)
Waste Quantity:	UNKNOWN

BUFFALO DEVELOPMENT CORP - BCP SITE NO C915208 (Continued) **1000291112**

Waste Code: Not reported
Crossref ID: B9-0722-06-07
Cross Ref Type Code: 23
Cross Ref Type: Agreement/Consent Order Number
Record Added Date: 4/17/2009 11:37:00 AM
Record Updated: 4/17/2009 11:37:00 AM
Updated By: THKNIZEK
Crossref ID: C915237
Cross Ref Type Code: 22
Cross Ref Type: BCP Site ID
Record Added Date: 7/8/2010 2:40:00 PM
Record Updated: 7/8/2010 2:40:00 PM
Updated By: MOBARRIE

Site Code: 366739
Control Name: Building Use Restriction
HW Code: C915208
Control Code: 26
Control Type: INST
Dt record added: 06/19/2013
Dt rec updated: 05/09/2017
Updated By: CRSTANIS
Site Code: 366739
Site Description: Location: The brownfield site encompasses two contiguous parcels in the City of Buffalo, Erie County, and are identified as 275-277 Franklin Street (~0.13 acres), and 279 Franklin Street (~0.12 acres). The site is situated in an urban commercial district. Site Features: The site is paved with asphalt and is currently used as a commercial surface parking lot approximately 0.25 acres in size. Current Zoning and Land Use: Both contiguous parcels that constitute the site are situated in the Downtown Opportunity (DO) zoning district which currently contains a mix of uses including apartment residences, restaurants, retail, entertainment, office and parking. Permitted use in the DO zoning district includes residential, office, (limited) retail, restaurant, hotel and entertainment. The surrounding parcels are currently used for a combination of commercial uses including surface parking, restaurant and entertainment. Past Use Of The Site: Record information concerning the use of both parcels dates back to the late 1800s where the area was predominantly closely spaced urban residential interspersed with commercial businesses and establishments. 279 Franklin Street: This lot was used for residential purposes from the late 1800s through the 1950s, and as a parking lot from the early 1980s to present. Previous use of the lot does not reveal any recognized environmental concerns. 275-277 Franklin Street: In the late 1800s, the lot contained a residence with a carriage shed facing Asbury Alley. By the 1950s, the residence was replaced with a commercial use building, and record information indicates that the structure was used by a dry cleaning business from approximately 1951 through the early 2000s. This parcel became delinquent in property taxes and the City of Buffalo foreclosed on the parcel for back taxes. The parcel was sold by the City in 2004. The building on the parcel was demolished in 2004 by the applicant. The building area of the parcel was subsequently paved over and is currently being used as a commercial surface parking lot. According to the BCP application, future development plans for the site and adjoining BCP site (C915237) consists of a hotel with conference and parking facilities. As of 2015, development plans have changed and

BUFFALO DEVELOPMENT CORP - BCP SITE NO C915208 (Continued) **1000291112**

the site has been marketed for lease development. Site Geology and Hydrogeology: Overburden: The site is located within the Erie-Ontario lake plain physiographic province, which is typified by little topographic relief and gentle slope toward Lake Erie, except in the immediate vicinity of major drainage ways. The surficial geology of the Lake Erie plain generally consists of a thin glacial till layer, glaciolacustrine (lake-laid laminated silts and clays) deposits, alluvium, and soils derived by these deposits. Glacial till deposits were not encountered at the site except for a thin layer (1 to 2 feet thick) above limestone bedrock. The site geology consists of a lake-laid sandy ridge deposit about 40 to 45 feet thick with several inter-bedded silty clay lenses. The site is also covered by a thin soil/fill layer about 2 to 5 feet thick and is found throughout the site. The fill is characteristic of urban fill common in the City of Buffalo. Bedrock: The site is situated over the Onondaga formation limestone. Limestone bedrock was encountered about 52 feet below the surface. Hydrogeology: Unconfined shallow groundwater was encountered within the native soils at depths of approximately 10 to 12 feet below ground surface. Because of a silty clay soil lens within the sandy soil profile at a depth of approximately 25 to 30 feet below ground surface, the site has a defined shallow and deep groundwater zone. Site groundwater flow gradient (shallow and deep) appears to flow in a south/southwest direction. Regional groundwater appears to flow west/southwest toward Lake Erie and confluence of the Buffalo River.

Env Problem: Pre-Remediation: An RI commenced in late 2006 to supplement earlier environmental site assessment in 2004. Results from this work revealed chlorinated solvents commonly used by dry cleaners (tetrachloroethene [PCE]) in soils up to 20,000 microgram/kilogram (ug/kg) PCE and in shallow groundwater up to 19 parts per million (ppm) PCE at 275-277 Franklin St parcel. The water quality standard for PCE is 0.005 ppm. The source area in shallow groundwater contamination appears to be centered around MW-5. The RI investigation included an adjoining lot at 267 Franklin Street (Site C915237) currently owned by the applicant revealed chlorinated solvents in shallow groundwater at levels up to 18 ppm for PCE. A supplemental site investigation was conducted in 2008 to develop an IRM for the site. Due to a silty clay soil lens midway between the surface and bedrock, two distinct groundwater zones exist at the site. The silty clay soil lens has limited some downward migration of the dissolved contamination. However, the 2008 supplemental investigation confirmed that deeper groundwater zone is contaminated with the chlorinated solvents, with one monitoring well containing 9.4 ppm PCE. PCE levels at this monitoring point have dropped to 0.091 ppm PCE during the 2012 sampling event (post IRM see below). The supplemental investigation confirmed that the bedrock zone does not appear to be contaminated with the chlorinated solvents. Chlorinated solvent vapors were detected during soil vapor evaluations at the 279 Franklin Street parcel. Investigation of off-site areas by the DEC on adjoining properties revealed an extensive elongated off-site chlorinated VOC plume in shallow groundwater. The off site impacts to deep groundwater zone were limited to one of the off-site sampling points hydraulically downgradient of the BCP site (south of the BCP site). Dissolved levels of PCE and its breakdown products at this off-site deep groundwater well have been found at 0.101 ppm total VOCs. Post-IRM: An IRM was implemented in 2008 on the site to address VOC

BUFFALO DEVELOPMENT CORP - BCP SITE NO C915208 (Continued) **1000291112**

contamination in vadose zone soils and in the shallow groundwater zone. The vapor extraction system appeared to have effectively addressed vadose zone contamination in the soil column above the groundwater source plume. However PCE at shallow well MW-5 rebounded to 70 ppm based upon sampling in 2012. Additional measures to remediate chlorinated VOC contamination in shallow and deep groundwater zones were necessary. An additional investigative boring and deep monitoring well to further assess deep groundwater impacts was installed in 2012 at 267 Franklin Street (adjoining BCP site C915237). Deep groundwater sampling confirmed dissolved chlorinated VOC contamination at levels up to 0.069 ppm total VOCs at this new deep well. The SVE system reduced the chlorinated VOCs in the vadose (soil) zone in the source area to restricted residential SCG guidance levels. The extent of the dissolved shallow plume, vapor intrusion (VI) from the chlorinated solvents was a concern with offsite neighboring structures. A soil VI evaluation completed by the DEC in 2008 revealed PCE impacts to indoor air quality inside the 267 Franklin Street apartment building. The DEC subsequently installed a sub-slab depressurization system (SSDS) inside the apartment building to address VI and reduce indoor air concentrations of PCE. This building and parcel were subsequently acquired by the applicant and allowed into the BCP as site C915237. Vapor intrusion was confirmed in another off-site building and an SSDS was installed in 2012. Additional investigations were required to assess off-site impacts, health and safety concerns, the presence of DNAPL, and bedrock aquifer contamination. Offsite monitoring by DEC confirmed an elongated PCE plume has migrated in a southwesterly direction across Franklin Street. Post Remedial Action: A DEC approved in-situ remedial action measure was implemented in April 2014 and consisted of the following: ENHANCED SHALLOW GROUNDWATER BIOREMEDIATION In-situ shallow groundwater treatment was implemented in 2014 for site C915208 residual source only. Enhanced natural biodegradation of chlorinated VOCs (PCE and its breakdown products)was implemented in an area with the highest residual VOC contaminated shallow groundwater in the immediate vicinity of MW-5 (residual source area at Site C915208) to propagate the biological breakdown of contaminants through anaerobic reductive dechlorination. A mix of nutrients, buffers and chemical agents were injected into the subsurface to a target depth between 10 and 20 feet below ground surface to promote dechlorinating microbe growth. The microbial reductive dechlorination process was also enhanced with the injection of micron scale zero valent iron (ZVI) for physio-chemical abiotic reduction of residual chlorinated VOCs. No specific remediation measures to address residual chlorinated VOC contamination in the deep groundwater zone was proposed or implemented. PLUME REDUCTION Plume reduction will be accomplished by treating the groundwater for chlorinated VOCs via in-situ treatment methods such that the groundwater leaving the site has been effectively treated to water quality criteria. At this site, the shallow chlorinated VOC contaminant plume has migrated onto an adjoining property at 275 Franklin Street which is part of the adjoining BCP project site C915208 (275 Franklin Street Site). In 2014, a contaminant plume reduction measure was accomplished by injecting in-situ treatment materials along a series of injection points 10 to 20 feet in depth along accessible western and southern perimeter areas of the site forming a vertical permeable reactive treatment zone. The in-situ treatment materials utilized the same materials used in the source

BUFFALO DEVELOPMENT CORP - BCP SITE NO C915208 (Continued) **1000291112**

area treatment system to promote enhanced natural anaerobic reductive dechlorination and physio-chemical reduction of residual chlorinated VOC contamination in the shallow groundwater zone. No specific remediation measures were implemented to address off-site migration of residual chlorinated VOC contamination in the deep groundwater zone.

Health Problem: Access to the site is unrestricted. However, contact with contaminated soil or groundwater is unlikely unless people dig below the ground surface. Contaminated groundwater at the site is not used for drinking or other purposes and the site is served by a public water supply that obtains water from a different source not affected by this contamination. Volatile organic compounds in the groundwater may move into the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. The potential exists for the inhalation of site contaminants due to soil vapor intrusion for any future on-site redevelopment and occupancy.

Dump: False
Structure: False
Lagoon: False
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Disp Start: Not reported
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Owner Name: Michael Mahaney
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HW Code: C915208
Waste Type: TRICHLOROETHENE (TCE)

BUFFALO DEVELOPMENT CORP - BCP SITE NO C915208 (Continued) **1000291112**

Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915208
Waste Type: TETRACHLOROETHYLENE (PCE)
Waste Quantity: UNKNOWN
Waste Code: Not reported
Crossref ID: B9-0722-06-07
Cross Ref Type Code: 23
Cross Ref Type: Agreement/Consent Order Number
Record Added Date: 4/17/2009 11:37:00 AM
Record Updated: 4/17/2009 11:37:00 AM
Updated By: THKNIZEK
Crossref ID: C915237
Cross Ref Type Code: 22
Cross Ref Type: BCP Site ID
Record Added Date: 7/8/2010 2:40:00 PM
Record Updated: 7/8/2010 2:40:00 PM
Updated By: MOBARRIE

Site Code: 366739
Control Name: Landuse Restriction
HW Code: C915208
Control Code: 25
Control Type: INST
Dt record added: 06/19/2013
Dt rec updated: 05/09/2017
Updated By: CRSTANIS
Site Code: 366739
Site Description: Location: The brownfield site encompasses two contiguous parcels in the City of Buffalo, Erie County, and are identified as 275-277 Franklin Street (~0.13 acres), and 279 Franklin Street (~0.12 acres). The site is situated in an urban commercial district. Site Features: The site is paved with asphalt and is currently used as a commercial surface parking lot approximately 0.25 acres in size. Current Zoning and Land Use: Both contiguous parcels that constitute the site are situated in the Downtown Opportunity (DO) zoning district which currently contains a mix of uses including apartment residences, restaurants, retail, entertainment, office and parking. Permitted use in the DO zoning district includes residential, office, (limited) retail, restaurant, hotel and entertainment. The surrounding parcels are currently used for a combination of commercial uses including surface parking, restaurant and entertainment. Past Use Of The Site: Record information concerning the use of both parcels dates back to the late 1800s where the area was predominantly closely spaced urban residential interspersed with commercial businesses and establishments. 279 Franklin Street: This lot was used for residential purposes from the late 1800s through the 1950s, and as a parking lot from the early 1980s to present. Previous use of the lot does not reveal any recognized environmental concerns. 275-277 Franklin Street: In the late 1800s, the lot contained a residence with a carriage shed facing Asbury Alley. By the 1950s, the residence was replaced with a commercial use building, and record information indicates that the structure was used by a dry cleaning business from approximately 1951 through the early 2000s. This parcel became delinquent in property taxes and the City of Buffalo foreclosed on the parcel for back taxes. The parcel was sold by the City in 2004. The building on the parcel was demolished in 2004 by the applicant.

BUFFALO DEVELOPMENT CORP - BCP SITE NO C915208 (Continued) **1000291112**

The building area of the parcel was subsequently paved over and is currently being used as a commercial surface parking lot. According to the BCP application, future development plans for the site and adjoining BCP site (C915237) consists of a hotel with conference and parking facilities. As of 2015, development plans have changed and the site has been marketed for lease development. Site Geology and Hydrogeology: Overburden: The site is located within the Erie-Ontario lake plain physiographic province, which is typified by little topographic relief and gentle slope toward Lake Erie, except in the immediate vicinity of major drainage ways. The surficial geology of the Lake Erie plain generally consists of a thin glacial till layer, glaciolacustrine (lake-laid laminated silts and clays) deposits, alluvium, and soils derived by these deposits. Glacial till deposits were not encountered at the site except for a thin layer (1 to 2 feet thick) above limestone bedrock. The site geology consists of a lake-laid sandy ridge deposit about 40 to 45 feet thick with several inter-bedded silty clay lenses. The site is also covered by a thin soil/fill layer about 2 to 5 feet thick and is found throughout the site. The fill is characteristic of urban fill common in the City of Buffalo. Bedrock: The site is situated over the Onondaga formation limestone. Limestone bedrock was encountered about 52 feet below the surface. Hydrogeology: Unconfined shallow groundwater was encountered within the native soils at depths of approximately 10 to 12 feet below ground surface. Because of a silty clay soil lens within the sandy soil profile at a depth of approximately 25 to 30 feet below ground surface, the site has a defined shallow and deep groundwater zone. Site groundwater flow gradient (shallow and deep) appears to flow in a south/southwest direction. Regional groundwater appears to flow west/southwest toward Lake Erie and confluence of the Buffalo River.

Env Problem: Pre-Remediation: An RI commenced in late 2006 to supplement earlier environmental site assessment in 2004. Results from this work revealed chlorinated solvents commonly used by dry cleaners (tetrachloroethene [PCE]) in soils up to 20,000 microgram/kilogram (ug/kg) PCE and in shallow groundwater up to 19 parts per million (ppm) PCE at 275-277 Franklin St parcel. The water quality standard for PCE is 0.005 ppm. The source area in shallow groundwater contamination appears to be centered around MW-5. The RI investigation included an adjoining lot at 267 Franklin Street (Site C915237) currently owned by the applicant revealed chlorinated solvents in shallow groundwater at levels up to 18 ppm for PCE. A supplemental site investigation was conducted in 2008 to develop an IRM for the site. Due to a silty clay soil lens midway between the surface and bedrock, two distinct groundwater zones exist at the site. The silty clay soil lens has limited some downward migration of the dissolved contamination. However, the 2008 supplemental investigation confirmed that deeper groundwater zone is contaminated with the chlorinated solvents, with one monitoring well containing 9.4 ppm PCE. PCE levels at this monitoring point have dropped to 0.091 ppm PCE during the 2012 sampling event (post IRM see below). The supplemental investigation confirmed that the bedrock zone does not appear to be contaminated with the chlorinated solvents. Chlorinated solvent vapors were detected during soil vapor evaluations at the 279 Franklin Street parcel. Investigation of off-site areas by the DEC on adjoining properties revealed an extensive elongated off-site chlorinated VOC plume in shallow groundwater. The off site impacts to deep groundwater zone were

BUFFALO DEVELOPMENT CORP - BCP SITE NO C915208 (Continued) **1000291112**

limited to one of the off-site sampling points hydraulically downgradient of the BCP site (south of the BCP site). Dissolved levels of PCE and its breakdown products at this off-site deep groundwater well have been found at 0.101 ppm total VOCs. Post-IRM: An IRM was implemented in 2008 on the site to address VOC contamination in vadose zone soils and in the shallow groundwater zone. The vapor extraction system appeared to have effectively addressed vadose zone contamination in the soil column above the groundwater source plume. However PCE at shallow well MW-5 rebounded to 70 ppm based upon sampling in 2012. Additional measures to remediate chlorinated VOC contamination in shallow and deep groundwater zones were necessary. An additional investigative boring and deep monitoring well to further assess deep groundwater impacts was installed in 2012 at 267 Franklin Street (adjoining BCP site C915237). Deep groundwater sampling confirmed dissolved chlorinated VOC contamination at levels up to 0.069 ppm total VOCs at this new deep well. The SVE system reduced the chlorinated VOCs in the vadose (soil) zone in the source area to restricted residential SCG guidance levels. The extent of the dissolved shallow plume, vapor intrusion (VI) from the chlorinated solvents was a concern with offsite neighboring structures. A soil VI evaluation completed by the DEC in 2008 revealed PCE impacts to indoor air quality inside the 267 Franklin Street apartment building. The DEC subsequently installed a sub-slab depressurization system (SSDS) inside the apartment building to address VI and reduce indoor air concentrations of PCE. This building and parcel were subsequently acquired by the applicant and allowed into the BCP as site C915237. Vapor intrusion was confirmed in another off-site building and an SSDS was installed in 2012. Additional investigations were required to assess off-site impacts, health and safety concerns, the presence of DNAPL, and bedrock aquifer contamination. Offsite monitoring by DEC confirmed an elongated PCE plume has migrated in a southwesterly direction across Franklin Street. Post Remedial Action: A DEC approved in-situ remedial action measure was implemented in April 2014 and consisted of the following: ENHANCED SHALLOW GROUNDWATER BIOREMEDIATION In-situ shallow groundwater treatment was implemented in 2014 for site C915208 residual source only. Enhanced natural biodegradation of chlorinated VOCs (PCE and its breakdown products)was implemented in an area with the highest residual VOC contaminated shallow groundwater in the immediate vicinity of MW-5 (residual source area at Site C915208) to propagate the biological breakdown of contaminants through anaerobic reductive dechlorination. A mix of nutrients, buffers and chemical agents were injected into the subsurface to a target depth between 10 and 20 feet below ground surface to promote dechlorinating microbe growth. The microbial reductive dechlorination process was also enhanced with the injection of micron scale zero valent iron (ZVI) for physio-chemical abiotic reduction of residual chlorinated VOCs. No specific remediation measures to address residual chlorinated VOC contamination in the deep groundwater zone was proposed or implemented. PLUME REDUCTION Plume reduction will be accomplished by treating the groundwater for chlorinated VOCs via in-situ treatment methods such that the groundwater leaving the site has been effectively treated to water quality criteria. At this site, the shallow chlorinated VOC contaminant plume has migrated onto an adjoining property at 275 Franklin Street which is part of the adjoining BCP project site C915208 (275 Franklin Street Site). In 2014, a contaminant plume

BUFFALO DEVELOPMENT CORP - BCP SITE NO C915208 (Continued) **1000291112**

reduction measure was accomplished by injecting in-situ treatment materials along a series of injection points 10 to 20 feet in depth along accessible western and southern perimeter areas of the site forming a vertical permeable reactive treatment zone. The in-situ treatment materials utilized the same materials used in the source area treatment system to promote enhanced natural anaerobic reductive dechlorination and physio-chemical reduction of residual chlorinated VOC contamination in the shallow groundwater zone. No specific remediation measures were implemented to address off-site migration of residual chlorinated VOC contamination in the deep groundwater zone.

Health Problem: Access to the site is unrestricted. However, contact with contaminated soil or groundwater is unlikely unless people dig below the ground surface. Contaminated groundwater at the site is not used for drinking or other purposes and the site is served by a public water supply that obtains water from a different source not affected by this contamination. Volatile organic compounds in the groundwater may move into the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. The potential exists for the inhalation of site contaminants due to soil vapor intrusion for any future on-site redevelopment and occupancy.

Dump: False
Structure: False
Lagoon: False
Landfill: False
Pond: False
Disp Start: Not reported
Disp Term: Not reported
Lat/Long: 42:53'28 / 78:52'28
Dell: False
Record Add: 7/13/2006 1:05:00 PM
Record Upd: 10/1/2012 12:10:00 PM
Updated By: ldennist
Own Op: Document Repository
Sub Type: NNN
Owner Name: Michael Mahaney
Owner Company: Buffalo & Erie County Public Library
Owner Address: 1 LaFayette Square
Owner Addr2: Not reported
Owner City,St,Zip: Buffalo, NY 14203
Owner Country: United States of America
Own Op: Applicant/Requestor
Sub Type: P03
Owner Name: Mark D. Croce
Owner Company: Buffalo Development Corporation
Owner Address: 257 Franklin Street
Owner Addr2: Not reported
Owner City,St,Zip: Buffalo, NY 14202
Owner Country: United States of America
HW Code: C915208
Waste Type: tetrachloroethene (PCE)
Waste Quantity: UNKNOWN
Waste Code: F002
HW Code: C915208

BUFFALO DEVELOPMENT CORP - BCP SITE NO C915208 (Continued) **1000291112**

Waste Type: tetrachloroethene (PCE)
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915208
Waste Type: TRICHLOROETHENE (TCE)
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915208
Waste Type: TETRACHLOROETHYLENE (PCE)
Waste Quantity: UNKNOWN
Waste Code: Not reported
Crossref ID: B9-0722-06-07
Cross Ref Type Code: 23
Cross Ref Type: Agreement/Consent Order Number
Record Added Date: 4/17/2009 11:37:00 AM
Record Updated: 4/17/2009 11:37:00 AM
Updated By: THKNIZEK
Crossref ID: C915237
Cross Ref Type Code: 22
Cross Ref Type: BCP Site ID
Record Added Date: 7/8/2010 2:40:00 PM
Record Updated: 7/8/2010 2:40:00 PM
Updated By: MOBARRIE

Site Code: 366739
Control Name: Environmental Easement
HW Code: C915208
Control Code: J
Control Type: INST
Dt record added: 06/19/2013
Dt rec updated: 05/09/2017
Updated By: CRSTANIS
Site Code: 366739
Site Description: Location: The brownfield site encompasses two contiguous parcels in the City of Buffalo, Erie County, and are identified as 275-277 Franklin Street (~0.13 acres), and 279 Franklin Street (~0.12 acres). The site is situated in an urban commercial district. Site Features: The site is paved with asphalt and is currently used as a commercial surface parking lot approximately 0.25 acres in size. Current Zoning and Land Use: Both contiguous parcels that constitute the site are situated in the Downtown Opportunity (DO) zoning district which currently contains a mix of uses including apartment residences, restaurants, retail, entertainment, office and parking. Permitted use in the DO zoning district includes residential, office, (limited) retail, restaurant, hotel and entertainment. The surrounding parcels are currently used for a combination of commercial uses including surface parking, restaurant and entertainment. Past Use Of The Site: Record information concerning the use of both parcels dates back to the late 1800s where the area was predominantly closely spaced urban residential interspersed with commercial businesses and establishments. 279 Franklin Street: This lot was used for residential purposes from the late 1800s through the 1950s, and as a parking lot from the early 1980s to present. Previous use of the lot does not reveal any recognized environmental concerns. 275-277 Franklin Street: In the late 1800s, the lot contained a residence with a carriage shed facing Asbury Alley. By the 1950s, the residence was replaced with a commercial use building, and record information

BUFFALO DEVELOPMENT CORP - BCP SITE NO C915208 (Continued) **1000291112**

indicates that the structure was used by a dry cleaning business from approximately 1951 through the early 2000s. This parcel became delinquent in property taxes and the City of Buffalo foreclosed on the parcel for back taxes. The parcel was sold by the City in 2004. The building on the parcel was demolished in 2004 by the applicant. The building area of the parcel was subsequently paved over and is currently being used as a commercial surface parking lot. According to the BCP application, future development plans for the site and adjoining BCP site (C915237) consists of a hotel with conference and parking facilities. As of 2015, development plans have changed and the site has been marketed for lease development. Site Geology and Hydrogeology: Overburden: The site is located within the Erie-Ontario lake plain physiographic province, which is typified by little topographic relief and gentle slope toward Lake Erie, except in the immediate vicinity of major drainage ways. The surficial geology of the Lake Erie plain generally consists of a thin glacial till layer, glaciolacustrine (lake-laid laminated silts and clays) deposits, alluvium, and soils derived by these deposits. Glacial till deposits were not encountered at the site except for a thin layer (1 to 2 feet thick) above limestone bedrock. The site geology consists of a lake-laid sandy ridge deposit about 40 to 45 feet thick with several inter-bedded silty clay lenses. The site is also covered by a thin soil/fill layer about 2 to 5 feet thick and is found throughout the site. The fill is characteristic of urban fill common in the City of Buffalo. Bedrock: The site is situated over the Onondaga formation limestone. Limestone bedrock was encountered about 52 feet below the surface. Hydrogeology: Unconfined shallow groundwater was encountered within the native soils at depths of approximately 10 to 12 feet below ground surface. Because of a silty clay soil lens within the sandy soil profile at a depth of approximately 25 to 30 feet below ground surface, the site has a defined shallow and deep groundwater zone. Site groundwater flow gradient (shallow and deep) appears to flow in a south/southwest direction. Regional groundwater appears to flow west/southwest toward Lake Erie and confluence of the Buffalo River.

Env Problem: Pre-Remediation: An RI commenced in late 2006 to supplement earlier environmental site assessment in 2004. Results from this work revealed chlorinated solvents commonly used by dry cleaners (tetrachloroethene [PCE]) in soils up to 20,000 microgram/kilogram (ug/kg) PCE and in shallow groundwater up to 19 parts per million (ppm) PCE at 275-277 Franklin St parcel. The water quality standard for PCE is 0.005 ppm. The source area in shallow groundwater contamination appears to be centered around MW-5. The RI investigation included an adjoining lot at 267 Franklin Street (Site C915237) currently owned by the applicant revealed chlorinated solvents in shallow groundwater at levels up to 18 ppm for PCE. A supplemental site investigation was conducted in 2008 to develop an IRM for the site. Due to a silty clay soil lens midway between the surface and bedrock, two distinct groundwater zones exist at the site. The silty clay soil lens has limited some downward migration of the dissolved contamination. However, the 2008 supplemental investigation confirmed that deeper groundwater zone is contaminated with the chlorinated solvents, with one monitoring well containing 9.4 ppm PCE. PCE levels at this monitoring point have dropped to 0.091 ppm PCE during the 2012 sampling event (post IRM see below). The supplemental investigation confirmed that the bedrock zone does not appear to be contaminated with the chlorinated solvents.

BUFFALO DEVELOPMENT CORP - BCP SITE NO C915208 (Continued) **1000291112**

Chlorinated solvent vapors were detected during soil vapor evaluations at the 279 Franklin Street parcel. Investigation of off-site areas by the DEC on adjoining properties revealed an extensive elongated off-site chlorinated VOC plume in shallow groundwater. The off site impacts to deep groundwater zone were limited to one of the off-site sampling points hydraulically downgradient of the BCP site (south of the BCP site). Dissolved levels of PCE and its breakdown products at this off-site deep groundwater well have been found at 0.101 ppm total VOCs. Post-IRM: An IRM was implemented in 2008 on the site to address VOC contamination in vadose zone soils and in the shallow groundwater zone. The vapor extraction system appeared to have effectively addressed vadose zone contamination in the soil column above the groundwater source plume. However PCE at shallow well MW-5 rebounded to 70 ppm based upon sampling in 2012. Additional measures to remediate chlorinated VOC contamination in shallow and deep groundwater zones were necessary. An additional investigative boring and deep monitoring well to further assess deep groundwater impacts was installed in 2012 at 267 Franklin Street (adjoining BCP site C915237). Deep groundwater sampling confirmed dissolved chlorinated VOC contamination at levels up to 0.069 ppm total VOCs at this new deep well. The SVE system reduced the chlorinated VOCs in the vadose (soil) zone in the source area to restricted residential SCG guidance levels. The extent of the dissolved shallow plume, vapor intrusion (VI) from the chlorinated solvents was a concern with offsite neighboring structures. A soil VI evaluation completed by the DEC in 2008 revealed PCE impacts to indoor air quality inside the 267 Franklin Street apartment building. The DEC subsequently installed a sub-slab depressurization system (SSDS) inside the apartment building to address VI and reduce indoor air concentrations of PCE. This building and parcel were subsequently acquired by the applicant and allowed into the BCP as site C915237. Vapor intrusion was confirmed in another off-site building and an SSDS was installed in 2012. Additional investigations were required to assess off-site impacts, health and safety concerns, the presence of DNAPL, and bedrock aquifer contamination. Offsite monitoring by DEC confirmed an elongated PCE plume has migrated in a southwesterly direction across Franklin Street. Post Remedial Action: A DEC approved in-situ remedial action measure was implemented in April 2014 and consisted of the following: ENHANCED SHALLOW GROUNDWATER BIOREMEDIATION In-situ shallow groundwater treatment was implemented in 2014 for site C915208 residual source only. Enhanced natural biodegradation of chlorinated VOCs (PCE and its breakdown products)was implemented in an area with the highest residual VOC contaminated shallow groundwater in the immediate vicinity of MW-5 (residual source area at Site C915208) to propagate the biological breakdown of contaminants through anaerobic reductive dechlorination. A mix of nutrients, buffers and chemical agents were injected into the subsurface to a target depth between 10 and 20 feet below ground surface to promote dechlorinating microbe growth. The microbial reductive dechlorination process was also enhanced with the injection of micron scale zero valent iron (ZVI) for physio-chemical abiotic reduction of residual chlorinated VOCs. No specific remediation measures to address residual chlorinated VOC contamination in the deep groundwater zone was proposed or implemented. PLUME REDUCTION Plume reduction will be accomplished by treating the groundwater for chlorinated VOCs via in-situ treatment methods such that the

BUFFALO DEVELOPMENT CORP - BCP SITE NO C915208 (Continued) **1000291112**

groundwater leaving the site has been effectively treated to water quality criteria. At this site, the shallow chlorinated VOC contaminant plume has migrated onto an adjoining property at 275 Franklin Street which is part of the adjoining BCP project site C915208 (275 Franklin Street Site). In 2014, a contaminant plume reduction measure was accomplished by injecting in-situ treatment materials along a series of injection points 10 to 20 feet in depth along accessible western and southern perimeter areas of the site forming a vertical permeable reactive treatment zone. The in-situ treatment materials utilized the same materials used in the source area treatment system to promote enhanced natural anaerobic reductive dechlorination and physio-chemical reduction of residual chlorinated VOC contamination in the shallow groundwater zone. No specific remediation measures were implemented to address off-site migration of residual chlorinated VOC contamination in the deep groundwater zone.

Health Problem: Access to the site is unrestricted. However, contact with contaminated soil or groundwater is unlikely unless people dig below the ground surface. Contaminated groundwater at the site is not used for drinking or other purposes and the site is served by a public water supply that obtains water from a different source not affected by this contamination. Volatile organic compounds in the groundwater may move into the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. The potential exists for the inhalation of site contaminants due to soil vapor intrusion for any future on-site redevelopment and occupancy.

Dump: False
Structure: False
Lagoon: False
Landfill: False
Pond: False
Disp Start: Not reported
Disp Term: Not reported
Lat/Long: 42:53'28 / 78:52'28
Dell: False
Record Add: 7/13/2006 1:05:00 PM
Record Upd: 10/1/2012 12:10:00 PM
Updated By: ldennist
Own Op: Document Repository
Sub Type: NNN
Owner Name: Michael Mahaney
Owner Company: Buffalo & Erie County Public Library
Owner Address: 1 LaFayette Square
Owner Addr2: Not reported
Owner City,St,Zip: Buffalo, NY 14203
Owner Country: United States of America
Own Op: Applicant/Requestor
Sub Type: P03
Owner Name: Mark D. Croce
Owner Company: Buffalo Development Corporation
Owner Address: 257 Franklin Street
Owner Addr2: Not reported
Owner City,St,Zip: Buffalo, NY 14202
Owner Country: United States of America

BUFFALO DEVELOPMENT CORP - BCP SITE NO C915208 (Continued) **1000291112**

HW Code: C915208
Waste Type: tetrachloroethene (PCE)
Waste Quantity: UNKNOWN
Waste Code: F002
HW Code: C915208
Waste Type: tetrachloroethene (PCE)
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915208
Waste Type: TRICHLOROETHENE (TCE)
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915208
Waste Type: TETRACHLOROETHYLENE (PCE)
Waste Quantity: UNKNOWN
Waste Code: Not reported
Crossref ID: B9-0722-06-07
Cross Ref Type Code: 23
Cross Ref Type: Agreement/Consent Order Number
Record Added Date: 4/17/2009 11:37:00 AM
Record Updated: 4/17/2009 11:37:00 AM
Updated By: THKNIZEK
Crossref ID: C915237
Cross Ref Type Code: 22
Cross Ref Type: BCP Site ID
Record Added Date: 7/8/2010 2:40:00 PM
Record Updated: 7/8/2010 2:40:00 PM
Updated By: MOBARRIE

RCRA NonGen / NLR:
Date form received by agency: 04/18/2017
Facility name: BUFFALO DEVELOPMENT CORP - BCP SITE NO C915208
Facility address: 275 FRANKLIN ST
BUFFALO, NY 14202
EPA ID: NYD981076581
Mailing address: FRANKLIN ST
BUFFALO, NY 14202
Contact: MARK D CROCE
Contact address: FRANKLIN ST
BUFFALO, NY 14202
Contact country: US
Contact telephone: 716-842-6800
Contact email: MARKCROCE@GMAIL.COM
EPA Region: 02
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: BUFFALO DEVELOPMENT CORP
Owner/operator address: FRANKLIN ST
BUFFALO, NY 14202
Owner/operator country: US
Owner/operator telephone: 716-842-6800
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported

BUFFALO DEVELOPMENT CORP - BCP SITE NO C915208 (Continued) **1000291112**

Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 08/24/2014
Owner/Op end date: Not reported

Owner/operator name: BUFFALO DEVELOPMENT CORP
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 02/12/2008
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
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D039
. Waste name: TETRACHLOROETHYLENE

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Historical Generators:
Date form received by agency: 11/14/2016
Site name: BUFFALO DEVELOPMENT CORP - BCP SITE NO C915208
Classification: Large Quantity Generator

. Waste code: D039
. Waste name: TETRACHLOROETHYLENE

BUFFALO DEVELOPMENT CORP - BCP SITE NO C915208 (Continued) **1000291112**

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Date form received by agency: 01/01/2007
Site name: WILLOW TOP CLEANERS INC
Classification: Not a generator, verified

Date form received by agency: 01/01/2006
Site name: WILLOW TOP CLEANERS INC
Classification: Not a generator, verified

Date form received by agency: 07/14/1999
Site name: WILLOW TOP CLEANERS INC
Classification: Small Quantity Generator

Date form received by agency: 04/18/1985
Site name: WILLOW TOP CLEANERS INC
Classification: Large Quantity Generator

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Violation Status: No violations found

NY MANIFEST:
Country: USA
EPA ID: NYD981076581
Facility Status: Not reported
Location Address 1: 275 SOUTH FRANKLIN STREET
Code: BP
Location Address 2: Not reported
Total Tanks: Not reported
Location City: BUFFALO
Location State: NY
Location Zip: 14202
Location Zip 4: Not reported

NY MANIFEST:
EPAID: NYD981076581
Mailing Name: BUFFALO DEVELOPMENT CORP - BCP SITE NO C915208
Mailing Contact: BUFFALO DEVELOPMENT CORP - BCP SITE NO C915208
Mailing Address 1: 275 FRANKLIN STREET

BUFFALO DEVELOPMENT CORP - BCP SITE NO C915208 (Continued) **1000291112**

Mailing Address 2:	Not reported
Mailing City:	BUFFALO
Mailing State:	NY
Mailing Zip:	14202
Mailing Zip 4:	Not reported
Mailing Country:	USA
Mailing Phone:	7168476166

NY MANIFEST:

Document ID:	Not reported
Manifest Status:	Not reported
seq:	Not reported
Year:	2017
Trans1 State ID:	NYD097644801
Trans2 State ID:	Not reported
Generator Ship Date:	01/06/2017
Trans1 Recv Date:	01/06/2017
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	01/16/2017
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported
Generator EPA ID:	NYD981076581
Trans1 EPA ID:	Not reported
Trans2 EPA ID:	Not reported
TSDF ID 1:	OHD980613541
TSDF ID 2:	Not reported
Manifest Tracking Number:	016618775JJK
Import Indicator:	N
Export Indicator:	N
Discr Quantity Indicator:	N
Discr Type Indicator:	N
Discr Residue Indicator:	N
Discr Partial Reject Indicator:	N
Discr Full Reject Indicator:	N
Manifest Ref Number:	Not reported
Alt Facility RCRA ID:	Not reported
Alt Facility Sign Date:	Not reported
MGMT Method Type Code:	H040
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Quantity:	30000
Units:	P - Pounds
Number of Containers:	1
Container Type:	CM - Metal boxes, cases, roll-offs
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	1
Waste Code:	F002
Waste Code 1_2:	D039
Waste Code 1_3:	Not reported
Waste Code 1_4:	Not reported
Waste Code 1_5:	Not reported
Waste Code 1_6:	Not reported

BUFFALO DEVELOPMENT CORP - BCP SITE NO C915208 (Continued) **1000291112**

Click this hyperlink while viewing on your computer to access
135 additional NY_MANIFEST: record(s) in the EDR Site Report.

82
NNE
1/4-1/2
0.325 mi.
1718 ft.

FORMER MOBIL SERVICE STATION 99-MST
979 MAIN STREET
BUFFALO, NY 14203

NY LTANKS **S100117475**
NY ENG CONTROLS **N/A**
NY INST CONTROL
NY BROWNFIELDS

Relative:
Higher

Actual:
662 ft.

LTANKS:

Facility ID:	8806781
Site ID:	146808
Closed Date:	1989-01-25
Spill Number:	8806781
Spill Date:	1988-11-01
Spill Cause:	Tank Failure
Spill Source:	Gasoline Station or other PBS Facility
Spill Class:	Not reported
Cleanup Ceased:	1989-01-25
SWIS:	1502
Investigator:	MXFRANKS
Referred To:	Not reported
Reported to Dept:	1988-11-14
CID:	Not reported
Water Affected:	Not reported
Spill Notifier:	Other
Last Inspection:	1989-01-23
Recommended Penalty:	False
Meets Standard:	True
UST Involvement:	True
Remediation Phase:	0
Date Entered In Computer:	1988-11-17
Spill Record Last Update:	2001-07-02
Spiller Name:	Not reported
Spiller Company:	PHYSICIANS IMAGING CENTER
Spiller Address:	ONE CAMBRIDGE SQUARE
Spiller County:	001
Spiller Contact:	Not reported
Spiller Phone:	Not reported
Spiller Extention:	Not reported
DEC Region:	9
DER Facility ID:	124995
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was MF 11/14/88: MF TELECON VARIOUS PARTIES TO GET OWNERS NAME. 11/18/88: MF TELECON JIM KELLY TO GET ENVIRONMENTAL REPORT. NOT IN TO RETURN CALL. 11/28/88: MF TELECON JIM KELLEY FOR COPY OF EMPIRE SOIL'S REPORT. HE CLAIMED HE WILL SEND IT RIGHT OUT. 12/12/88: MF TELECON RAVI CHOPRA,I ASKED FOR A COPY OF THE REPORT FROM EMPIRE SOILS HE CLAIMED HE DIDN'T GET A COPY AS YET, & AS SONN AS HE DOES HE WILL SEND ME A COPY. 12/30/88: MF JIM KELLY TELECON, HE WANTED TO KNOW IF I HAD A COPY OF REPORT AS HE DIDN'T. HE WILL SET UP SITE MEETING WITH ESI ASAP. 01/23/89: MF RECEIVED COPY OF SITE SURVEY. SITE VISIT/EMPIRE SOILS & JIM KELLY (LAWYER) WELLS BAILED & CHECKED FOR SHEEN. NO SHEEN NOTICED, 1 WELL NO LIQUID. NO FUTHER ACTION NECESSARY. "
Remarks:	"CONTRACTOR CALLED IN SHEEN IN MW, SITE IS AN OLD MOBIL STATION."

FORMER MOBIL SERVICE STATION 99-MST (Continued) **S100117475**

All Materials:

Site ID:	146808
Operable Unit ID:	923617
Operable Unit:	01
Material ID:	455124
Material Code:	0064A
Material Name:	unknown material
Case No.:	Not reported
Material FA:	Other
Quantity:	.00
Units:	G
Recovered:	.00
Oxygenate:	Not reported

ENG CONTROLS:

Site Code:	458395
HW Code:	C915260
Control Code:	12
Control Type:	ENG
Date Record Added:	10/29/2014
Date Rec Updated:	05/03/2017
Updated By:	JSWALIA
Site Description:	Location: This site is located at 1001 Main Street (formerly 979 Main Street) in the City of Buffalo. The site borders with Goodrich Street on north, High Street on south, and a parking lot for the Buffalo General Hospital on the east. The underground subway system is along the Main Street on the west. Site Features: This 1.72 acres site consists of two parcels. Current Zoning and land Use: The site is located within the commercial zoning district. Currently a medical office building is being constructed on the site. The land use in the project area is characterized as urban mixed use, primarily commercial and community services. The community services include public and private medical and hospital facilities. Past Use of the Site: The Exxon/Mobil and its predecessors operated a gas station from approximately 1940s to 1982. The gas station building was demolished in 1982. Four underground storage tanks (USTs) were removed between 1981 and 2007. Other previous businesses at the site included an auto repair shop, UB medical and dental departments, restaurant, and a motel. Site Geology and Hydrogeology: Overburden soils in the area consist primarily of fill material at the ground surface. Geotechnical boring logs collected from the site in 2010 indicate that fill material such as sand, gravel and bricks varies in thickness from 2 to 10 feet across the site. Soil underlying the fill is comprised of interbedded sands and silt that are brown to olive - brown in color. Overburden soils are underlain by the Onondaga Limestone (bedrock), which is at approximately 100 feet below ground surface. The groundwater is approx. 32 feet bgs and flows towards northeast.
Env Problem:	This site is contaminated with petroleum hydrocarbons due to leaking underground storage tanks (USTs) from the former Mobil Service Station. Four underground storage tanks (USTs) were removed in 1981 (4000 gal, 3000 gal), 1982 (6000 gal), and 2007 (1000gal). A Remedial Investigation and IRM activities were conducted concurrently from December 2012 to August 2013. Approximately 16,000 cubic yards of contaminated soil were excavated and disposed off-site at a permitted

FORMER MOBIL SERVICE STATION 99-MST (Continued) **S100117475**

disposal facility or treatment facility. Approximately 537,000 gallons of groundwater and LNAPL (light non-aqueous phase liquid) were also removed and sent off-site for treatment and disposal. Prior to the IRMs, elevated levels of petroleum related compounds such as benzene, toluene, ethylbenzene, and xylenes were found in both soil and groundwater at the site during site investigations. Contamination remaining after the IRM: Soil: Post excavation soil samples were collected from the bottom of the excavation, from approximately 30x30 foot grids and were tested for volatile organic compounds (VOCs). Twelve post-excavation soil samples were also tested for SVOCs (semi-volatile organic compounds), PCBs (polychlorinated bi-phenyls), pesticides, and metals. Depth of these soil samples varied from 26 feet to 40 feet bgs. The soil samples collected at the bottom of the excavation met Restricted Residential Soil Cleanup Objectives. Groundwater: Following excavation activities within the sheet piled area, seven new monitoring wells were installed within the excavated area. Depth of monitoring wells was approximately 16 feet below the basement floor elevation or 43 feet bgs. Contamination due to BTEX in five of the seven monitoring wells varied from 116 ppb to 15,110 ppb. Groundwater levels exceeded the groundwater standards for benzene (8.8-4,800 ppb; std.-1.0 ppb), toluene (42 -220 ppb; std. 5 ppb), ethylbenzene (20-1,600 ppb; std.- 5 ppb) and total xylenes (85-6,800 ppb; std. 5 ppb) during March 2014 sampling. Contaminated groundwater will continue to be treated in-situ by injecting oxygen release compounds (ORC) to break down the remaining petroleum hydrocarbons to achieve groundwater standards. The progress of the treatment will be monitored under a site management plan (SMP) and treatment will continue until remedial action objectives are met. Off-site groundwater contamination is being addressed under a separate Spill stipulation (Spill No. 9500234).

Health Problem:	Measures are in place to control the potential for coming in contact with residual subsurface soil and groundwater contamination remaining on the site.
Dump:	False
Structure:	False
Lagoon:	False
Landfill:	False
Pond:	False
Disp Start:	Not reported
Disp Term:	Not reported
Lat/Long:	Not reported
Dell:	Not reported
Record Add:	11/28/2011 2:58:00 PM
Record Upd:	12/11/2014 3:56:00 PM
Updated By:	jswalia
Own Op:	Document Repository
Sub Type:	NNN
Owner Name:	Reference Librarian
Owner Company:	Buffalo and Erie County Public Library
Owner Address:	1 Lafayette Square
Owner Addr2:	Not reported
Owner City,St,Zip:	Buffalo, NY 14203-1887
Owner Country:	United States of America
Own Op:	Owner
Sub Type:	NNN
Owner Name:	Robert W. Bragg
Owner Company:	Kaleida Properties, Inc.and Kaleida Health

FORMER MOBIL SERVICE STATION 99-MST (Continued) **S100117475**

Owner Address:	726 Exchange Street
Owner Addr2:	Suite 210
Owner City,St,Zip:	Buffao, NY 14210
Owner Country:	United States of America
Own Op:	Applicant/Requestor
Sub Type:	P03
Owner Name:	Denise M. Juron-Borgese
Owner Company:	Conventus Partners, LLC
Owner Address:	Centerpointe Corporate Park
Owner Addr2:	350 Essjay Road
Owner City,St,Zip:	Williamsville, NY 14221
Owner Country:	United States of America
HW Code:	C915260
Waste Type:	TOLUENE
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915260
Waste Type:	XYLENE (MIXED)
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915260
Waste Type:	ETHYLBENZENE
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915260
Waste Type:	NAPHTHALENE
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915260
Waste Type:	BENZENE
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915260
Waste Type:	1,2,4-TRIMETHYLBENZENE
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
Crossref ID:	C915260-03-12
Cross Ref Type Code:	23
Cross Ref Type:	Agreement/Consent Order Number
Record Added Date:	10/17/2014 11:15:00 AM
Record Updated:	10/17/2014 11:15:00 AM
Updated By:	jswalia
Crossref ID:	06-02-2012
Cross Ref Type Code:	26
Cross Ref Type:	Agreement/Consent Order Date
Record Added Date:	10/17/2014 11:16:00 AM
Record Updated:	10/17/2014 11:16:00 AM
Updated By:	jswalia
Crossref ID:	2014240622
Cross Ref Type Code:	25
Cross Ref Type:	County Recording Identifier
Record Added Date:	12/3/2014 11:22:00 AM
Record Updated:	12/3/2014 11:22:00 AM
Updated By:	jswalia
Crossref ID:	2014240633
Cross Ref Type Code:	25
Cross Ref Type:	County Recording Identifier

FORMER MOBIL SERVICE STATION 99-MST (Continued) **S100117475**

Record Added Date:	12/3/2014 11:24:00 AM
Record Updated:	12/3/2014 11:24:00 AM
Updated By:	jswalia
Crossref ID:	8806781
Cross Ref Type Code:	01
Cross Ref Type:	Spill No.
Record Added Date:	12/6/2011 9:45:00 AM
Record Updated:	12/6/2011 9:45:00 AM
Updated By:	BRWOLOSE
Crossref ID:	9500234
Cross Ref Type Code:	01
Cross Ref Type:	Spill No.
Record Added Date:	12/2/2011 10:32:00 AM
Record Updated:	12/2/2011 10:32:00 AM
Updated By:	BRWOLOSE

INST CONTROL:

Site Code:	458395
Control Name:	Landuse Restriction
HW Code:	C915260
Control Code:	25
Control Type:	INST
Dt record added:	10/29/2014
Dt rec updated:	05/03/2017
Updated By:	JSWALIA
Site Code:	458395
Site Description:	Location: This site is located at 1001 Main Street (formerly 979 Main Street) in the City of Buffalo. The site borders with Goodrich Street on north, High Street on south, and a parking lot for the Buffalo General Hospital on the east. The underground subway system is along the Main Street on the west. Site Features: This 1.72 acres site consists of two parcels. Current Zoning and land Use: The site is located within the commercial zoning district. Currently a medical office building is being constructed on the site. The land use in the project area is characterized as urban mixed use, primarily commercial and community services. The community services include public and private medical and hospital facilities. Past Use of the Site: The Exxon/Mobil and its predecessors operated a gas station from approximately 1940s to 1982. The gas station building was demolished in 1982. Four underground storage tanks (USTs) were removed between 1981 and 2007. Other previous businesses at the site included an auto repair shop, UB medical and dental departments, restaurant, and a motel. Site Geology and Hydrogeology: Overburden soils in the area consist primarily of fill material at the ground surface. Geotechnical boring logs collected from the site in 2010 indicate that fill material such as sand, gravel and bricks varies in thickness from 2 to 10 feet across the site. Soil underlying the fill is comprised of interbedded sands and silt that are brown to olive - brown in color. Overburden soils are underlain by the Onondaga Limestone (bedrock), which is at approximately 100 feet below ground surface. The groundwater is approx. 32 feet bgs and flows towards northeast.
Env Problem:	This site is contaminated with petroleum hydrocarbons due to leaking underground storage tanks (USTs) from the former Mobil Service Station. Four underground storage tanks (USTs) were removed in 1981 (4000 gal, 3000 gal), 1982 (6000 gal), and 2007 (1000gal). A Remedial Investigation and IRM activities were conducted concurrently from

FORMER MOBIL SERVICE STATION 99-MST (Continued) **S100117475**

December 2012 to August 2013. Approximately 16,000 cubic yards of contaminated soil were excavated and disposed off-site at a permitted disposal facility or treatment facility. Approximately 537,000 gallons of groundwater and LNAPL (light non-aqueous phase liquid) were also removed and sent off-site for treatment and disposal. Prior to the IRMs, elevated levels of petroleum related compounds such as benzene, toluene, ethylbenzene, and xylenes were found in both soil and groundwater at the site during site investigations. Contamination remaining after the IRM: Soil: Post excavation soil samples were collected from the bottom of the excavation, from approximately 30x30 foot grids and were tested for volatile organic compounds (VOCs). Twelve post-excavation soil samples were also tested for SVOCs (semi-volatile organic compounds), PCBs (polychlorinated bi-phenyls), pesticides, and metals. Depth of these soil samples varied from 26 feet to 40 feet bgs. The soil samples collected at the bottom of the excavation met Restricted Residential Soil Cleanup Objectives. Groundwater: Following excavation activities within the sheet piled area, seven new monitoring wells were installed within the excavated area. Depth of monitoring wells was approximately 16 feet below the basement floor elevation or 43 feet bgs. Contamination due to BTEX in five of the seven monitoring wells varied from 116 ppb to 15,110 ppb. Groundwater levels exceeded the groundwater standards for benzene (8.8-4,800 ppb; std.-1.0 ppb), toluene (42 -220 ppb; std. 5 ppb), ethylbenzene (20-1,600 ppb; std.- 5 ppb) and total xylenes (85-6,800 ppb; std. 5 ppb) during March 2014 sampling. Contaminated groundwater will continue to be treated in-situ by injecting oxygen release compounds (ORC) to break down the remaining petroleum hydrocarbons to achieve groundwater standards. The progress of the treatment will be monitored under a site management plan (SMP) and treatment will continue until remedial action objectives are met. Off-site groundwater contamination is being addressed under a separate Spill stipulation (Spill No. 9500234).

Health Problem: Measures are in place to control the potential for coming in contact with residual subsurface soil and groundwater contamination remaining on the site.
Dump: False
Structure: False
Lagoon: False
Landfill: False
Pond: False
Disp Start: Not reported
Disp Term: Not reported
Lat/Long: Not reported
Dell: Not reported
Record Add: 11/28/2011 2:58:00 PM
Record Upd: 12/11/2014 3:56:00 PM
Updated By: jswalia
Own Op: Document Repository
Sub Type: NNN
Owner Name: Reference Librarian
Owner Company: Buffalo and Erie County Public Library
Owner Address: 1 Lafayette Square
Owner Addr2: Not reported
Owner City,St,Zip: Buffalo, NY 14203-1887
Owner Country: United States of America
Own Op: Owner
Sub Type: NNN

FORMER MOBIL SERVICE STATION 99-MST (Continued) **S100117475**

Owner Name: Robert W. Bragg
Owner Company: Kaleida Properties, Inc.and Kaleida Health
Owner Address: 726 Exchange Street
Owner Addr2: Suite 210
Owner City,St,Zip: Buffao, NY 14210
Owner Country: United States of America
Own Op: Applicant/Requestor
Sub Type: P03
Owner Name: Denise M. Juron-Borgese
Owner Company: Conventus Partners, LLC
Owner Address: Centerpointe Corporate Park
Owner Addr2: 350 Essjay Road
Owner City,St,Zip: Williamsville, NY 14221
Owner Country: United States of America
HW Code: C915260
Waste Type: TOLUENE
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915260
Waste Type: XYLENE (MIXED)
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915260
Waste Type: ETHYLBENZENE
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915260
Waste Type: NAPHTHALENE
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915260
Waste Type: BENZENE
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915260
Waste Type: 1,2,4-TRIMETHYLBENZENE
Waste Quantity: UNKNOWN
Waste Code: Not reported
Crossref ID: C915260-03-12
Cross Ref Type Code: 23
Cross Ref Type: Agreement/Consent Order Number
Record Added Date: 10/17/2014 11:15:00 AM
Record Updated: 10/17/2014 11:15:00 AM
Updated By: jswalia
Crossref ID: 06-02-2012
Cross Ref Type Code: 26
Cross Ref Type: Agreement/Consent Order Date
Record Added Date: 10/17/2014 11:16:00 AM
Record Updated: 10/17/2014 11:16:00 AM
Updated By: jswalia
Crossref ID: 2014240622
Cross Ref Type Code: 25
Cross Ref Type: County Recording Identifier
Record Added Date: 12/3/2014 11:22:00 AM
Record Updated: 12/3/2014 11:22:00 AM
Updated By: jswalia
Crossref ID: 2014240633

FORMER MOBIL SERVICE STATION 99-MST (Continued) **S100117475**

Cross Ref Type Code: 25
Cross Ref Type: County Recording Identifier
Record Added Date: 12/3/2014 11:24:00 AM
Record Updated: 12/3/2014 11:24:00 AM
Updated By: jswalia
Crossref ID: 8806781
Cross Ref Type Code: 01
Cross Ref Type: Spill No.
Record Added Date: 12/6/2011 9:45:00 AM
Record Updated: 12/6/2011 9:45:00 AM
Updated By: BRWOLOSE
Crossref ID: 9500234
Cross Ref Type Code: 01
Cross Ref Type: Spill No.
Record Added Date: 12/2/2011 10:32:00 AM
Record Updated: 12/2/2011 10:32:00 AM
Updated By: BRWOLOSE

Site Code: 458395
Control Name: Monitoring Plan
HW Code: C915260
Control Code: 31
Control Type: INST
Dt record added: 10/29/2014
Dt rec updated: 05/03/2017
Updated By: JSWALIA
Site Code: 458395
Site Description: Location: This site is located at 1001 Main Street (formerly 979 Main Street) in the City of Buffalo. The site borders with Goodrich Street on north, High Street on south, and a parking lot for the Buffalo General Hospital on the east. The underground subway system is along the Main Street on the west. Site Features: This 1.72 acres site consists of two parcels. Current Zoning and land Use: The site is located within the commercial zoning district. Currently a medical office building is being constructed on the site. The land use in the project area is characterized as urban mixed use, primarily commercial and community services. The community services include public and private medical and hospital facilities. Past Use of the Site: The Exxon/Mobil and its predecessors operated a gas station from approximately 1940s to 1982. The gas station building was demolished in 1982. Four underground storage tanks (USTs) were removed between 1981 and 2007. Other previous businesses at the site included an auto repair shop, UB medical and dental departments, restaurant, and a motel. Site Geology and Hydrogeology: Overburden soils in the area consist primarily of fill material at the ground surface. Geotechnical boring logs collected from the site in 2010 indicate that fill material such as sand, gravel and bricks varies in thickness from 2 to 10 feet across the site. Soil underlying the fill is comprised of interbedded sands and silt that are brown to olive - brown in color. Overburden soils are underlain by the Onondaga Limestone (bedrock), which is at approximately 100 feet below ground surface. The groundwater is approx. 32 feet bgs and flows towards northeast.
Env Problem: This site is contaminated with petroleum hydrocarbons due to leaking underground storage tanks (USTs) from the former Mobil Service Station. Four underground storage tanks (USTs) were removed in 1981 (4000 gal, 3000 gal), 1982 (6000 gal), and 2007 (1000gal). A Remedial

FORMER MOBIL SERVICE STATION 99-MST (Continued) **S100117475**

Investigation and IRM activities were conducted concurrently from December 2012 to August 2013. Approximately 16,000 cubic yards of contaminated soil were excavated and disposed off-site at a permitted disposal facility or treatment facility. Approximately 537,000 gallons of groundwater and LNAPL (light non-aqueous phase liquid) were also removed and sent off-site for treatment and disposal. Prior to the IRMs, elevated levels of petroleum related compounds such as benzene, toluene, ethylbenzene, and xylenes were found in both soil and groundwater at the site during site investigations. Contamination remaining after the IRM: Soil: Post excavation soil samples were collected from the bottom of the excavation, from approximately 30x30 foot grids and were tested for volatile organic compounds (VOCs). Twelve post-excavation soil samples were also tested for SVOCs (semi-volatile organic compounds), PCBs (polychlorinated bi-phenyls), pesticides, and metals. Depth of these soil samples varied from 26 feet to 40 feet bgs. The soil samples collected at the bottom of the excavation met Restricted Residential Soil Cleanup Objectives. Groundwater: Following excavation activities within the sheet piled area, seven new monitoring wells were installed within the excavated area. Depth of monitoring wells was approximately 16 feet below the basement floor elevation or 43 feet bgs. Contamination due to BTEX in five of the seven monitoring wells varied from 116 ppb to 15,110 ppb. Groundwater levels exceeded the groundwater standards for benzene (8.8-4,800 ppb; std.-1.0 ppb), toluene (42 -220 ppb; std. 5 ppb), ethylbenzene (20-1,600 ppb; std.- 5 ppb) and total xylenes (85-6,800 ppb; std. 5 ppb) during March 2014 sampling. Contaminated groundwater will continue to be treated in-situ by injecting oxygen release compounds (ORC) to break down the remaining petroleum hydrocarbons to achieve groundwater standards. The progress of the treatment will be monitored under a site management plan (SMP) and treatment will continue until remedial action objectives are met. Off-site groundwater contamination is being addressed under a separate Spill stipulation (Spill No. 9500234).

Health Problem: Measures are in place to control the potential for coming in contact with residual subsurface soil and groundwater contamination remaining on the site.
Dump: False
Structure: False
Lagoon: False
Landfill: False
Pond: False
Disp Start: Not reported
Disp Term: Not reported
Lat/Long: Not reported
Dell: Not reported
Record Add: 11/28/2011 2:58:00 PM
Record Upd: 12/11/2014 3:56:00 PM
Updated By: jswalia
Own Op: Document Repository
Sub Type: NNN
Owner Name: Reference Librarian
Owner Company: Buffalo and Erie County Public Library
Owner Address: 1 Lafayette Square
Owner Addr2: Not reported
Owner City,St,Zip: Buffalo, NY 14203-1887
Owner Country: United States of America
Own Op: Owner

FORMER MOBIL SERVICE STATION 99-MST (Continued) **S100117475**

Sub Type: NNN
Owner Name: Robert W. Bragg
Owner Company: Kaleida Properties, Inc.and Kaleida Health
Owner Address: 726 Exchange Street
Owner Addr2: Suite 210
Owner City,St,Zip: Buffao, NY 14210
Owner Country: United States of America
Own Op: Applicant/Requestor
Sub Type: P03
Owner Name: Denise M. Juron-Borgese
Owner Company: Conventus Partners, LLC
Owner Address: Centerpointe Corporate Park
Owner Addr2: 350 Essjay Road
Owner City,St,Zip: Williamsville, NY 14221
Owner Country: United States of America
HW Code: C915260
Waste Type: TOLUENE
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915260
Waste Type: XYLENE (MIXED)
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915260
Waste Type: ETHYLBENZENE
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915260
Waste Type: NAPHTHALENE
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915260
Waste Type: BENZENE
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915260
Waste Type: 1,2,4-TRIMETHYLBENZENE
Waste Quantity: UNKNOWN
Waste Code: Not reported
Crossref ID: C915260-03-12
Cross Ref Type Code: 23
Cross Ref Type: Agreement/Consent Order Number
Record Added Date: 10/17/2014 11:15:00 AM
Record Updated: 10/17/2014 11:15:00 AM
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Crossref ID: 06-02-2012
Cross Ref Type Code: 26
Cross Ref Type: Agreement/Consent Order Date
Record Added Date: 10/17/2014 11:16:00 AM
Record Updated: 10/17/2014 11:16:00 AM
Updated By: jswalia
Crossref ID: 2014240622
Cross Ref Type Code: 25
Cross Ref Type: County Recording Identifier
Record Added Date: 12/3/2014 11:22:00 AM
Record Updated: 12/3/2014 11:22:00 AM
Updated By: jswalia

FORMER MOBIL SERVICE STATION 99-MST (Continued) **S100117475**

Crossref ID: 2014240633
Cross Ref Type Code: 25
Cross Ref Type: County Recording Identifier
Record Added Date: 12/3/2014 11:24:00 AM
Record Updated: 12/3/2014 11:24:00 AM
Updated By: jswalia
Crossref ID: 8806781
Cross Ref Type Code: 01
Cross Ref Type: Spill No.
Record Added Date: 12/6/2011 9:45:00 AM
Record Updated: 12/6/2011 9:45:00 AM
Updated By: BRWOLOSE
Crossref ID: 9500234
Cross Ref Type Code: 01
Cross Ref Type: Spill No.
Record Added Date: 12/2/2011 10:32:00 AM
Record Updated: 12/2/2011 10:32:00 AM
Updated By: BRWOLOSE

Site Code: 458395
Control Name: IC/EC Plan
HW Code: C915260
Control Code: 34
Control Type: INST
Dt record added: 10/29/2014
Dt rec updated: 05/03/2017
Updated By: JSWALIA
Site Code: 458395
Site Description: Location: This site is located at 1001 Main Street (formerly 979 Main Street) in the City of Buffalo. The site borders with Goodrich Street on north, High Street on south, and a parking lot for the Buffalo General Hospital on the east. The underground subway system is along the Main Street on the west. Site Features: This 1.72 acres site consists of two parcels. Current Zoning and land Use: The site is located within the commercial zoning district. Currently a medical office building is being constructed on the site. The land use in the project area is characterized as urban mixed use, primarily commercial and community services. The community services include public and private medical and hospital facilities. Past Use of the Site: The Exxon/Mobil and its predecessors operated a gas station from approximately 1940s to 1982. The gas station building was demolished in 1982. Four underground storage tanks (USTs) were removed between 1981 and 2007. Other previous businesses at the site included an auto repair shop, UB medical and dental departments, restaurant, and a motel. Site Geology and Hydrogeology: Overburden soils in the area consist primarily of fill material at the ground surface. Geotechnical boring logs collected from the site in 2010 indicate that fill material such as sand, gravel and bricks varies in thickness from 2 to 10 feet across the site. Soil underlying the fill is comprised of interbedded sands and silt that are brown to olive - brown in color. Overburden soils are underlain by the Onondaga Limestone (bedrock), which is at approximately 100 feet below ground surface. The groundwater is approx. 32 feet bgs and flows towards northeast.
Env Problem: This site is contaminated with petroleum hydrocarbons due to leaking underground storage tanks (USTs) from the former Mobil Service Station. Four underground storage tanks (USTs) were removed in 1981

FORMER MOBIL SERVICE STATION 99-MST (Continued) **S100117475**

(4000 gal, 3000 gal), 1982 (6000 gal), and 2007 (1000gal). A Remedial Investigation and IRM activities were conducted concurrently from December 2012 to August 2013. Approximately 16,000 cubic yards of contaminated soil were excavated and disposed off-site at a permitted disposal facility or treatment facility. Approximately 537,000 gallons of groundwater and LNAPL (light non-aqueous phase liquid) were also removed and sent off-site for treatment and disposal. Prior to the IRMs, elevated levels of petroleum related compounds such as benzene, toluene, ethylbenzene, and xylenes were found in both soil and groundwater at the site during site investigations. Contamination remaining after the IRM: Soil: Post excavation soil samples were collected from the bottom of the excavation, from approximately 30x30 foot grids and were tested for volatile organic compounds (VOCs). Twelve post-excavation soil samples were also tested for SVOCs (semi-volatile organic compounds), PCBs (polychlorinated bi-phenyls), pesticides, and metals. Depth of these soil samples varied from 26 feet to 40 feet bgs. The soil samples collected at the bottom of the excavation met Restricted Residential Soil Cleanup Objectives. Groundwater: Following excavation activities within the sheet piled area, seven new monitoring wells were installed within the excavated area. Depth of monitoring wells was approximately 16 feet below the basement floor elevation or 43 feet bgs. Contamination due to BTEX in five of the seven monitoring wells varied from 116 ppb to 15,110 ppb. Groundwater levels exceeded the groundwater standards for benzene (8.8-4,800 ppb; std.-1.0 ppb), toluene (42 -220 ppb; std. 5 ppb), ethylbenzene (20-1,600 ppb; std.- 5 ppb) and total xylenes (85-6,800 ppb; std. 5 ppb) during March 2014 sampling. Contaminated groundwater will continue to be treated in-situ by injecting oxygen release compounds (ORC) to break down the remaining petroleum hydrocarbons to achieve groundwater standards. The progress of the treatment will be monitored under a site management plan (SMP) and treatment will continue until remedial action objectives are met. Off-site groundwater contamination is being addressed under a separate Spill stipulation (Spill No. 9500234).

Health Problem: Measures are in place to control the potential for coming in contact with residual subsurface soil and groundwater contamination remaining on the site.
Dump: False
Structure: False
Lagoon: False
Landfill: False
Pond: False
Disp Start: Not reported
Disp Term: Not reported
Lat/Long: Not reported
Dell: Not reported
Record Add: 11/28/2011 2:58:00 PM
Record Upd: 12/11/2014 3:56:00 PM
Updated By: jswalia
Own Op: Document Repository
Sub Type: NNN
Owner Name: Reference Librarian
Owner Company: Buffalo and Erie County Public Library
Owner Address: 1 Lafayette Square
Owner Addr2: Not reported
Owner City,St,Zip: Buffalo, NY 14203-1887
Owner Country: United States of America

FORMER MOBIL SERVICE STATION 99-MST (Continued) **S100117475**

Own Op: Owner
Sub Type: NNN
Owner Name: Robert W. Bragg
Owner Company: Kaleida Properties, Inc.and Kaleida Health
Owner Address: 726 Exchange Street
Owner Addr2: Suite 210
Owner City,St,Zip: Buffao, NY 14210
Owner Country: United States of America
Own Op: Applicant/Requestor
Sub Type: P03
Owner Name: Denise M. Juron-Borgese
Owner Company: Conventus Partners, LLC
Owner Address: Centerpointe Corporate Park
Owner Addr2: 350 Essjay Road
Owner City,St,Zip: Williamsville, NY 14221
Owner Country: United States of America
HW Code: C915260
Waste Type: TOLUENE
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915260
Waste Type: XYLENE (MIXED)
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915260
Waste Type: ETHYLBENZENE
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915260
Waste Type: NAPHTHALENE
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915260
Waste Type: BENZENE
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915260
Waste Type: 1,2,4-TRIMETHYLBENZENE
Waste Quantity: UNKNOWN
Waste Code: Not reported
Crossref ID: C915260-03-12
Cross Ref Type Code: 23
Cross Ref Type: Agreement/Consent Order Number
Record Added Date: 10/17/2014 11:15:00 AM
Record Updated: 10/17/2014 11:15:00 AM
Updated By: jswalia
Crossref ID: 06-02-2012
Cross Ref Type Code: 26
Cross Ref Type: Agreement/Consent Order Date
Record Added Date: 10/17/2014 11:16:00 AM
Record Updated: 10/17/2014 11:16:00 AM
Updated By: jswalia
Crossref ID: 2014240622
Cross Ref Type Code: 25
Cross Ref Type: County Recording Identifier
Record Added Date: 12/3/2014 11:22:00 AM
Record Updated: 12/3/2014 11:22:00 AM

FORMER MOBIL SERVICE STATION 99-MST (Continued) **S100117475**

Updated By: jswalia
Crossref ID: 2014240633
Cross Ref Type Code: 25
Cross Ref Type: County Recording Identifier
Record Added Date: 12/3/2014 11:24:00 AM
Record Updated: 12/3/2014 11:24:00 AM
Updated By: jswalia
Crossref ID: 8806781
Cross Ref Type Code: 01
Cross Ref Type: Spill No.
Record Added Date: 12/6/2011 9:45:00 AM
Record Updated: 12/6/2011 9:45:00 AM
Updated By: BRWOLOSE
Crossref ID: 9500234
Cross Ref Type Code: 01
Cross Ref Type: Spill No.
Record Added Date: 12/2/2011 10:32:00 AM
Record Updated: 12/2/2011 10:32:00 AM
Updated By: BRWOLOSE

Site Code: 458395
Control Name: Site Management Plan
HW Code: C915260
Control Code: 32
Control Type: INST
Dt record added: 10/29/2014
Dt rec updated: 05/03/2017
Updated By: JSWALIA
Site Code: 458395
Site Description: Location: This site is located at 1001 Main Street (formerly 979 Main Street) in the City of Buffalo. The site borders with Goodrich Street on north, High Street on south, and a parking lot for the Buffalo General Hospital on the east. The underground subway system is along the Main Street on the west. Site Features: This 1.72 acres site consists of two parcels. Current Zoning and land Use: The site is located within the commercial zoning district. Currently a medical office building is being constructed on the site. The land use in the project area is characterized as urban mixed use, primarily commercial and community services. The community services include public and private medical and hospital facilities. Past Use of the Site: The Exxon/Mobil and its predecessors operated a gas station from approximately 1940s to 1982. The gas station building was demolished in 1982. Four underground storage tanks (USTs) were removed between 1981 and 2007. Other previous businesses at the site included an auto repair shop, UB medical and dental departments, restaurant, and a motel. Site Geology and Hydrogeology: Overburden soils in the area consist primarily of fill material at the ground surface. Geotechnical boring logs collected from the site in 2010 indicate that fill material such as sand, gravel and bricks varies in thickness from 2 to 10 feet across the site. Soil underlying the fill is comprised of interbedded sands and silt that are brown to olive - brown in color. Overburden soils are underlain by the Onondaga Limestone (bedrock), which is at approximately 100 feet below ground surface. The groundwater is approx. 32 feet bgs and flows towards northeast.
Env Problem: This site is contaminated with petroleum hydrocarbons due to leaking underground storage tanks (USTs) from the former Mobil Service

FORMER MOBIL SERVICE STATION 99-MST (Continued) **S100117475**

Station. Four underground storage tanks (USTs) were removed in 1981 (4000 gal, 3000 gal), 1982 (6000 gal), and 2007 (1000gal). A Remedial Investigation and IRM activities were conducted concurrently from December 2012 to August 2013. Approximately 16,000 cubic yards of contaminated soil were excavated and disposed off-site at a permitted disposal facility or treatment facility. Approximately 537,000 gallons of groundwater and LNAPL (light non-aqueous phase liquid) were also removed and sent off-site for treatment and disposal. Prior to the IRMs, elevated levels of petroleum related compounds such as benzene, toluene, ethylbenzene, and xylenes were found in both soil and groundwater at the site during site investigations. Contamination remaining after the IRM: Soil: Post excavation soil samples were collected from the bottom of the excavation, from approximately 30x30 foot grids and were tested for volatile organic compounds (VOCs). Twelve post-excavation soil samples were also tested for SVOCs (semi-volatile organic compounds), PCBs (polychlorinated bi-phenyls), pesticides, and metals. Depth of these soil samples varied from 26 feet to 40 feet bgs. The soil samples collected at the bottom of the excavation met Restricted Residential Soil Cleanup Objectives. Groundwater: Following excavation activities within the sheet piled area, seven new monitoring wells were installed within the excavated area. Depth of monitoring wells was approximately 16 feet below the basement floor elevation or 43 feet bgs. Contamination due to BTEX in five of the seven monitoring wells varied from 116 ppb to 15,110 ppb. Groundwater levels exceeded the groundwater standards for benzene (8.8-4,800 ppb; std.-1.0 ppb), toluene (42 -220 ppb; std. 5 ppb), ethylbenzene (20-1,600 ppb; std.- 5 ppb) and total xylenes (85-6,800 ppb; std. 5 ppb) during March 2014 sampling. Contaminated groundwater will continue to be treated in-situ by injecting oxygen release compounds (ORC) to break down the remaining petroleum hydrocarbons to achieve groundwater standards. The progress of the treatment will be monitored under a site management plan (SMP) and treatment will continue until remedial action objectives are met. Off-site groundwater contamination is being addressed under a separate Spill stipulation (Spill No. 9500234).

Health Problem: Measures are in place to control the potential for coming in contact with residual subsurface soil and groundwater contamination remaining on the site.
Dump: False
Structure: False
Lagoon: False
Landfill: False
Pond: False
Disp Start: Not reported
Disp Term: Not reported
Lat/Long: Not reported
Dell: Not reported
Record Add: 11/28/2011 2:58:00 PM
Record Upd: 12/11/2014 3:56:00 PM
Updated By: jswalia
Own Op: Document Repository
Sub Type: NNN
Owner Name: Reference Librarian
Owner Company: Buffalo and Erie County Public Library
Owner Address: 1 Lafayette Square
Owner Addr2: Not reported
Owner City,St,Zip: Buffalo, NY 14203-1887

FORMER MOBIL SERVICE STATION 99-MST (Continued) **S100117475**

Owner Country: United States of America
Own Op: Owner
Sub Type: NNN
Owner Name: Robert W. Bragg
Owner Company: Kaleida Properties, Inc.and Kaleida Health
Owner Address: 726 Exchange Street
Owner Addr2: Suite 210
Owner City,St,Zip: Buffao, NY 14210
Owner Country: United States of America
Own Op: Applicant/Requestor
Sub Type: P03
Owner Name: Denise M. Juron-Borgese
Owner Company: Conventus Partners, LLC
Owner Address: Centerpointe Corporate Park
Owner Addr2: 350 Essjay Road
Owner City,St,Zip: Williamsville, NY 14221
Owner Country: United States of America
HW Code: C915260
Waste Type: TOLUENE
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915260
Waste Type: XYLENE (MIXED)
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915260
Waste Type: ETHYLBENZENE
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915260
Waste Type: NAPHTHALENE
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915260
Waste Type: BENZENE
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915260
Waste Type: 1,2,4-TRIMETHYLBENZENE
Waste Quantity: UNKNOWN
Waste Code: Not reported
Crossref ID: C915260-03-12
Cross Ref Type Code: 23
Cross Ref Type: Agreement/Consent Order Number
Record Added Date: 10/17/2014 11:15:00 AM
Record Updated: 10/17/2014 11:15:00 AM
Updated By: jswalia
Crossref ID: 06-02-2012
Cross Ref Type Code: 26
Cross Ref Type: Agreement/Consent Order Date
Record Added Date: 10/17/2014 11:16:00 AM
Record Updated: 10/17/2014 11:16:00 AM
Updated By: jswalia
Crossref ID: 2014240622
Cross Ref Type Code: 25
Cross Ref Type: County Recording Identifier
Record Added Date: 12/3/2014 11:22:00 AM

FORMER MOBIL SERVICE STATION 99-MST (Continued) **S100117475**

Record Updated: 12/3/2014 11:22:00 AM
Updated By: jswalia
Crossref ID: 2014240633
Cross Ref Type Code: 25
Cross Ref Type: County Recording Identifier
Record Added Date: 12/3/2014 11:24:00 AM
Record Updated: 12/3/2014 11:24:00 AM
Updated By: jswalia
Crossref ID: 8806781
Cross Ref Type Code: 01
Cross Ref Type: Spill No.
Record Added Date: 12/6/2011 9:45:00 AM
Record Updated: 12/6/2011 9:45:00 AM
Updated By: BRWOLOSE
Crossref ID: 9500234
Cross Ref Type Code: 01
Cross Ref Type: Spill No.
Record Added Date: 12/2/2011 10:32:00 AM
Record Updated: 12/2/2011 10:32:00 AM
Updated By: BRWOLOSE

Site Code: 458395
Control Name: Environmental Easement
HW Code: C915260
Control Code: J
Control Type: INST
Dt record added: 10/29/2014
Dt rec updated: 05/03/2017
Updated By: JSWALIA
Site Code: 458395
Site Description: Location: This site is located at 1001 Main Street (formerly 979 Main Street) in the City of Buffalo. The site borders with Goodrich Street on north, High Street on south, and a parking lot for the Buffalo General Hospital on the east. The underground subway system is along the Main Street on the west. Site Features: This 1.72 acres site consists of two parcels. Current Zoning and land Use: The site is located within the commercial zoning district. Currently a medical office building is being constructed on the site. The land use in the project area is characterized as urban mixed use, primarily commercial and community services. The community services include public and private medical and hospital facilities. Past Use of the Site: The Exxon/Mobil and its predecessors operated a gas station from approximately 1940s to 1982. The gas station building was demolished in 1982. Four underground storage tanks (USTs) were removed between 1981 and 2007. Other previous businesses at the site included an auto repair shop, UB medical and dental departments, restaurant, and a motel. Site Geology and Hydrogeology: Overburden soils in the area consist primarily of fill material at the ground surface. Geotechnical boring logs collected from the site in 2010 indicate that fill material such as sand, gravel and bricks varies in thickness from 2 to 10 feet across the site. Soil underlying the fill is comprised of interbedded sands and silt that are brown to olive - brown in color. Overburden soils are underlain by the Onondaga Limestone (bedrock), which is at approximately 100 feet below ground surface. The groundwater is approx. 32 feet bgs and flows towards northeast.
Env Problem: This site is contaminated with petroleum hydrocarbons due to leaking

FORMER MOBIL SERVICE STATION 99-MST (Continued) **S100117475**

underground storage tanks (USTs) from the former Mobil Service Station. Four underground storage tanks (USTs) were removed in 1981 (4000 gal, 3000 gal), 1982 (6000 gal), and 2007 (1000gal). A Remedial Investigation and IRM activities were conducted concurrently from December 2012 to August 2013. Approximately 16,000 cubic yards of contaminated soil were excavated and disposed off-site at a permitted disposal facility or treatment facility. Approximately 537,000 gallons of groundwater and LNAPL (light non-aqueous phase liquid) were also removed and sent off-site for treatment and disposal. Prior to the IRMs, elevated levels of petroleum related compounds such as benzene, toluene, ethylbenzene, and xylenes were found in both soil and groundwater at the site during site investigations. Contamination remaining after the IRM: Soil: Post excavation soil samples were collected from the bottom of the excavation, from approximately 30x30 foot grids and were tested for volatile organic compounds (VOCs). Twelve post-excavation soil samples were also tested for SVOCs (semi-volatile organic compounds), PCBs (polychlorinated bi-phenyls), pesticides, and metals. Depth of these soil samples varied from 26 feet to 40 feet bgs. The soil samples collected at the bottom of the excavation met Restricted Residential Soil Cleanup Objectives. Groundwater: Following excavation activities within the sheet piled area, seven new monitoring wells were installed within the excavated area. Depth of monitoring wells was approximately 16 feet below the basement floor elevation or 43 feet bgs. Contamination due to BTEX in five of the seven monitoring wells varied from 116 ppb to 15,110 ppb. Groundwater levels exceeded the groundwater standards for benzene (8.8-4,800 ppb; std.-1.0 ppb), toluene (42 -220 ppb; std. 5 ppb), ethylbenzene (20-1,600 ppb; std.- 5 ppb) and total xylenes (85-6,800 ppb; std. 5 ppb) during March 2014 sampling. Contaminated groundwater will continue to be treated in-situ by injecting oxygen release compounds (ORC) to break down the remaining petroleum hydrocarbons to achieve groundwater standards. The progress of the treatment will be monitored under a site management plan (SMP) and treatment will continue until remedial action objectives are met. Off-site groundwater contamination is being addressed under a separate Spill stipulation (Spill No. 9500234).

Health Problem: Measures are in place to control the potential for coming in contact with residual subsurface soil and groundwater contamination remaining on the site.
Dump: False
Structure: False
Lagoon: False
Landfill: False
Pond: False
Disp Start: Not reported
Disp Term: Not reported
Lat/Long: Not reported
Dell: Not reported
Record Add: 11/28/2011 2:58:00 PM
Record Upd: 12/11/2014 3:56:00 PM
Updated By: jswalia
Own Op: Document Repository
Sub Type: NNN
Owner Name: Reference Librarian
Owner Company: Buffalo and Erie County Public Library
Owner Address: 1 Lafayette Square
Owner Addr2: Not reported

FORMER MOBIL SERVICE STATION 99-MST (Continued) **S100117475**

Owner City,St,Zip: Buffalo, NY 14203-1887
Owner Country: United States of America
Own Op: Owner
Sub Type: NNN
Owner Name: Robert W. Bragg
Owner Company: Kaleida Properties, Inc.and Kaleida Health
Owner Address: 726 Exchange Street
Owner Addr2: Suite 210
Owner City,St,Zip: Buffao, NY 14210
Owner Country: United States of America
Own Op: Applicant/Requestor
Sub Type: P03
Owner Name: Denise M. Juron-Borgese
Owner Company: Conventus Partners, LLC
Owner Address: Centerpointe Corporate Park
Owner Addr2: 350 Essjay Road
Owner City,St,Zip: Williamsville, NY 14221
Owner Country: United States of America
HW Code: C915260
Waste Type: TOLUENE
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915260
Waste Type: XYLENE (MIXED)
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915260
Waste Type: ETHYLBENZENE
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915260
Waste Type: NAPHTHALENE
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915260
Waste Type: BENZENE
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915260
Waste Type: 1,2,4-TRIMETHYLBENZENE
Waste Quantity: UNKNOWN
Waste Code: Not reported
Crossref ID: C915260-03-12
Cross Ref Type Code: 23
Cross Ref Type: Agreement/Consent Order Number
Record Added Date: 10/17/2014 11:15:00 AM
Record Updated: 10/17/2014 11:15:00 AM
Updated By: jswalia
Crossref ID: 06-02-2012
Cross Ref Type Code: 26
Cross Ref Type: Agreement/Consent Order Date
Record Added Date: 10/17/2014 11:16:00 AM
Record Updated: 10/17/2014 11:16:00 AM
Updated By: jswalia
Crossref ID: 2014240622
Cross Ref Type Code: 25
Cross Ref Type: County Recording Identifier

FORMER MOBIL SERVICE STATION 99-MST (Continued) **S100117475**

Record Added Date: 12/3/2014 11:22:00 AM
Record Updated: 12/3/2014 11:22:00 AM
Updated By: jswalia
Crossref ID: 2014240633
Cross Ref Type Code: 25
Cross Ref Type: County Recording Identifier
Record Added Date: 12/3/2014 11:24:00 AM
Record Updated: 12/3/2014 11:24:00 AM
Updated By: jswalia
Crossref ID: 8806781
Cross Ref Type Code: 01
Cross Ref Type: Spill No.
Record Added Date: 12/6/2011 9:45:00 AM
Record Updated: 12/6/2011 9:45:00 AM
Updated By: BRWOLOSE
Crossref ID: 9500234
Cross Ref Type Code: 01
Cross Ref Type: Spill No.
Record Added Date: 12/2/2011 10:32:00 AM
Record Updated: 12/2/2011 10:32:00 AM
Updated By: BRWOLOSE

Site Code: 458395
Control Name: Soil Management Plan
HW Code: C915260
Control Code: 14
Control Type: INST
Dt record added: 10/29/2014
Dt rec updated: 05/03/2017
Updated By: JSWALIA
Site Code: 458395
Site Description: Location: This site is located at 1001 Main Street (formerly 979 Main Street) in the City of Buffalo. The site borders with Goodrich Street on north, High Street on south, and a parking lot for the Buffalo General Hospital on the east. The underground subway system is along the Main Street on the west. Site Features: This 1.72 acres site consists of two parcels. Current Zoning and land Use: The site is located within the commercial zoning district. Currently a medical office building is being constructed on the site. The land use in the project area is characterized as urban mixed use, primarily commercial and community services. The community services include public and private medical and hospital facilities. Past Use of the Site: The Exxon/Mobil and its predecessors operated a gas station from approximately 1940s to 1982. The gas station building was demolished in 1982. Four underground storage tanks (USTs) were removed between 1981 and 2007. Other previous businesses at the site included an auto repair shop, UB medical and dental departments, restaurant, and a motel. Site Geology and Hydrogeology: Overburden soils in the area consist primarily of fill material at the ground surface. Geotechnical boring logs collected from the site in 2010 indicate that fill material such as sand, gravel and bricks varies in thickness from 2 to 10 feet across the site. Soil underlying the fill is comprised of interbedded sands and silt that are brown to olive - brown in color. Overburden soils are underlain by the Onondaga Limestone (bedrock), which is at approximately 100 feet below ground surface. The groundwater is approx. 32 feet bgs and flows towards northeast.

FORMER MOBIL SERVICE STATION 99-MST (Continued) **S100117475**

Env Problem: This site is contaminated with petroleum hydrocarbons due to leaking underground storage tanks (USTs) from the former Mobil Service Station. Four underground storage tanks (USTs) were removed in 1981 (4000 gal, 3000 gal), 1982 (6000 gal), and 2007 (1000gal). A Remedial Investigation and IRM activities were conducted concurrently from December 2012 to August 2013. Approximately 16,000 cubic yards of contaminated soil were excavated and disposed off-site at a permitted disposal facility or treatment facility. Approximately 537,000 gallons of groundwater and LNAPL (light non-aqueous phase liquid) were also removed and sent off-site for treatment and disposal. Prior to the IRMs, elevated levels of petroleum related compounds such as benzene, toluene, ethylbenzene, and xylenes were found in both soil and groundwater at the site during site investigations. Contamination remaining after the IRM: Soil: Post excavation soil samples were collected from the bottom of the excavation, from approximately 30x30 foot grids and were tested for volatile organic compounds (VOCs). Twelve post-excavation soil samples were also tested for SVOCs (semi-volatile organic compounds), PCBs (polychlorinated bi-phenyls), pesticides, and metals. Depth of these soil samples varied from 26 feet to 40 feet bgs. The soil samples collected at the bottom of the excavation met Restricted Residential Soil Cleanup Objectives. Groundwater: Following excavation activities within the sheet piled area, seven new monitoring wells were installed within the excavated area. Depth of monitoring wells was approximately 16 feet below the basement floor elevation or 43 feet bgs. Contamination due to BTEX in five of the seven monitoring wells varied from 116 ppb to 15,110 ppb. Groundwater levels exceeded the groundwater standards for benzene (8.8-4,800 ppb; std.-1.0 ppb), toluene (42 -220 ppb; std. 5 ppb), ethylbenzene (20-1,600 ppb; std.- 5 ppb) and total xylenes (85-6,800 ppb; std. 5 ppb) during March 2014 sampling. Contaminated groundwater will continue to be treated in-situ by injecting oxygen release compounds (ORC) to break down the remaining petroleum hydrocarbons to achieve groundwater standards. The progress of the treatment will be monitored under a site management plan (SMP) and treatment will continue until remedial action objectives are met. Off-site groundwater contamination is being addressed under a separate Spill stipulation (Spill No. 9500234).
Health Problem: Measures are in place to control the potential for coming in contact with residual subsurface soil and groundwater contamination remaining on the site.
Dump: False
Structure: False
Lagoon: False
Landfill: False
Pond: False
Disp Start: Not reported
Disp Term: Not reported
Lat/Long: Not reported
Dell: Not reported
Record Add: 11/28/2011 2:58:00 PM
Record Upd: 12/11/2014 3:56:00 PM
Updated By: jswalia
Own Op: Document Repository
Sub Type: NNN
Owner Name: Reference Librarian
Owner Company: Buffalo and Erie County Public Library
Owner Address: 1 Lafayette Square

FORMER MOBIL SERVICE STATION 99-MST (Continued) **S100117475**

Owner Addr2: Not reported
Owner City,St,Zip: Buffalo, NY 14203-1887
Owner Country: United States of America
Own Op: Owner
Sub Type: NNN
Owner Name: Robert W. Bragg
Owner Company: Kaleida Properties, Inc.and Kaleida Health
Owner Address: 726 Exchange Street
Owner Addr2: Suite 210
Owner City,St,Zip: Buffao, NY 14210
Owner Country: United States of America
Own Op: Applicant/Requestor
Sub Type: P03
Owner Name: Denise M. Juron-Borgese
Owner Company: Conventus Partners, LLC
Owner Address: Centerpointe Corporate Park
Owner Addr2: 350 Essjay Road
Owner City,St,Zip: Williamsville, NY 14221
Owner Country: United States of America
HW Code: C915260
Waste Type: TOLUENE
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915260
Waste Type: XYLENE (MIXED)
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915260
Waste Type: ETHYLBENZENE
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915260
Waste Type: NAPHTHALENE
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915260
Waste Type: BENZENE
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915260
Waste Type: 1,2,4-TRIMETHYLBENZENE
Waste Quantity: UNKNOWN
Waste Code: Not reported
Crossref ID: C915260-03-12
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Cross Ref Type: Agreement/Consent Order Date
Record Added Date: 10/17/2014 11:16:00 AM
Record Updated: 10/17/2014 11:16:00 AM
Updated By: jswalia
Crossref ID: 2014240622
Cross Ref Type Code: 25

FORMER MOBIL SERVICE STATION 99-MST (Continued) **S100117475**

Cross Ref Type: County Recording Identifier
Record Added Date: 12/3/2014 11:22:00 AM
Record Updated: 12/3/2014 11:22:00 AM
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Updated By: jswalia
Crossref ID: 8806781
Cross Ref Type Code: 01
Cross Ref Type: Spill No.
Record Added Date: 12/6/2011 9:45:00 AM
Record Updated: 12/6/2011 9:45:00 AM
Updated By: BRWOLOSE
Crossref ID: 9500234
Cross Ref Type Code: 01
Cross Ref Type: Spill No.
Record Added Date: 12/2/2011 10:32:00 AM
Record Updated: 12/2/2011 10:32:00 AM
Updated By: BRWOLOSE

Site Code: 458395
Control Name: Ground Water Use Restriction
HW Code: C915260
Control Code: 08
Control Type: INST
Dt record added: 10/29/2014
Dt rec updated: 05/03/2017
Updated By: JSWALIA
Site Code: 458395
Site Description: Location: This site is located at 1001 Main Street (formerly 979 Main Street) in the City of Buffalo. The site borders with Goodrich Street on north, High Street on south, and a parking lot for the Buffalo General Hospital on the east. The underground subway system is along the Main Street on the west. Site Features: This 1.72 acres site consists of two parcels. Current Zoning and land Use: The site is located within the commercial zoning district. Currently a medical office building is being constructed on the site. The land use in the project area is characterized as urban mixed use, primarily commercial and community services. The community services include public and private medical and hospital facilities. Past Use of the Site: The Exxon/Mobil and its predecessors operated a gas station from approximately 1940s to 1982. The gas station building was demolished in 1982. Four underground storage tanks (USTs) were removed between 1981 and 2007. Other previous businesses at the site included an auto repair shop, UB medical and dental departments, restaurant, and a motel. Site Geology and Hydrogeology: Overburden soils in the area consist primarily of fill material at the ground surface. Geotechnical boring logs collected from the site in 2010 indicate that fill material such as sand, gravel and bricks varies in thickness from 2 to 10 feet across the site. Soil underlying the fill is comprised of interbedded sands and silt that are brown to olive - brown in color. Overburden soils are underlain by the Onondaga Limestone (bedrock), which is at approximately 100 feet below ground surface. The groundwater is approx. 32 feet bgs and flows towards

FORMER MOBIL SERVICE STATION 99-MST (Continued) **S100117475**

northeast.

Env Problem: This site is contaminated with petroleum hydrocarbons due to leaking underground storage tanks (USTs) from the former Mobil Service Station. Four underground storage tanks (USTs) were removed in 1981 (4000 gal, 3000 gal), 1982 (6000 gal), and 2007 (1000gal). A Remedial Investigation and IRM activities were conducted concurrently from December 2012 to August 2013. Approximately 16,000 cubic yards of contaminated soil were excavated and disposed off-site at a permitted disposal facility or treatment facility. Approximately 537,000 gallons of groundwater and LNAPL (light non-aqueous phase liquid) were also removed and sent off-site for treatment and disposal. Prior to the IRMs, elevated levels of petroleum related compounds such as benzene, toluene, ethylbenzene, and xylenes were found in both soil and groundwater at the site during site investigations. Contamination remaining after the IRM: Soil: Post excavation soil samples were collected from the bottom of the excavation, from approximately 30x30 foot grids and were tested for volatile organic compounds (VOCs). Twelve post-excavation soil samples were also tested for SVOCs (semi-volatile organic compounds), PCBs (polychlorinated bi-phenyls), pesticides, and metals. Depth of these soil samples varied from 26 feet to 40 feet bgs. The soil samples collected at the bottom of the excavation met Restricted Residential Soil Cleanup Objectives. Groundwater: Following excavation activities within the sheet piled area, seven new monitoring wells were installed within the excavated area. Depth of monitoring wells was approximately 16 feet below the basement floor elevation or 43 feet bgs. Contamination due to BTEX in five of the seven monitoring wells varied from 116 ppb to 15,110 ppb. Groundwater levels exceeded the groundwater standards for benzene (8.8-4,800 ppb; std.-1.0 ppb), toluene (42 -220 ppb; std. 5 ppb), ethylbenzene (20-1,600 ppb; std.- 5 ppb) and total xylenes (85-6,800 ppb; std. 5 ppb) during March 2014 sampling. Contaminated groundwater will continue to be treated in-situ by injecting oxygen release compounds (ORC) to break down the remaining petroleum hydrocarbons to achieve groundwater standards. The progress of the treatment will be monitored under a site management plan (SMP) and treatment will continue until remedial action objectives are met. Off-site groundwater contamination is being addressed under a separate Spill stipulation (Spill No. 9500234).

Health Problem: Measures are in place to control the potential for coming in contact with residual subsurface soil and groundwater contamination remaining on the site.

Dump: False
Structure: False
Lagoon: False
Landfill: False
Pond: False
Disp Start: Not reported
Disp Term: Not reported
Lat/Long: Not reported
Dell: Not reported
Record Add: 11/28/2011 2:58:00 PM
Record Upd: 12/11/2014 3:56:00 PM
Updated By: jswalia
Own Op: Document Repository
Sub Type: NNN
Owner Name: Reference Librarian
Owner Company: Buffalo and Erie County Public Library

FORMER MOBIL SERVICE STATION 99-MST (Continued) **S100117475**

Owner Address: 1 Lafayette Square
Owner Addr2: Not reported
Owner City,St,Zip: Buffalo, NY 14203-1887
Owner Country: United States of America
Own Op: Owner
Sub Type: NNN
Owner Name: Robert W. Bragg
Owner Company: Kaleida Properties, Inc.and Kaleida Health
Owner Address: 726 Exchange Street
Owner Addr2: Suite 210
Owner City,St,Zip: Buffao, NY 14210
Owner Country: United States of America
Own Op: Applicant/Requestor
Sub Type: P03
Owner Name: Denise M. Juron-Borgese
Owner Company: Conventus Partners, LLC
Owner Address: Centerpointe Corporate Park
Owner Addr2: 350 Essjay Road
Owner City,St,Zip: Williamsville, NY 14221
Owner Country: United States of America
HW Code: C915260
Waste Type: TOLUENE
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915260
Waste Type: XYLENE (MIXED)
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915260
Waste Type: ETHYLBENZENE
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915260
Waste Type: NAPHTHALENE
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915260
Waste Type: BENZENE
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915260
Waste Type: 1,2,4-TRIMETHYLBENZENE
Waste Quantity: UNKNOWN
Waste Code: Not reported
Crossref ID: C915260-03-12
Cross Ref Type Code: 23
Cross Ref Type: Agreement/Consent Order Number
Record Added Date: 10/17/2014 11:15:00 AM
Record Updated: 10/17/2014 11:15:00 AM
Updated By: jswalia
Crossref ID: 06-02-2012
Cross Ref Type Code: 26
Cross Ref Type: Agreement/Consent Order Date
Record Added Date: 10/17/2014 11:16:00 AM
Record Updated: 10/17/2014 11:16:00 AM
Updated By: jswalia
Crossref ID: 2014240622

FORMER MOBIL SERVICE STATION 99-MST (Continued) **S100117475**

Cross Ref Type Code: 25
Cross Ref Type: County Recording Identifier
Record Added Date: 12/3/2014 11:22:00 AM
Record Updated: 12/3/2014 11:22:00 AM
Updated By: jswalia
Crossref ID: 2014240633
Cross Ref Type Code: 25
Cross Ref Type: County Recording Identifier
Record Added Date: 12/3/2014 11:24:00 AM
Record Updated: 12/3/2014 11:24:00 AM
Updated By: jswalia
Crossref ID: 8806781
Cross Ref Type Code: 01
Cross Ref Type: Spill No.
Record Added Date: 12/6/2011 9:45:00 AM
Record Updated: 12/6/2011 9:45:00 AM
Updated By: BRWOLOSE
Crossref ID: 9500234
Cross Ref Type Code: 01
Cross Ref Type: Spill No.
Record Added Date: 12/2/2011 10:32:00 AM
Record Updated: 12/2/2011 10:32:00 AM
Updated By: BRWOLOSE

BROWNFIELDS:

Program:	BCP
Site Code:	458395
Acres:	1.725
HW Code:	C915260
SWIS:	1502
Town:	Buffalo (c)
Record Added Date:	11/28/2011
Record Updated Date:	03/08/2017
Update By:	CRSTANIS
Site Description:	Location: This site is located at 1001 Main Street (formerly 979 Main Street) in the City of Buffalo. The site borders with Goodrich Street on north, High Street on south, and a parking lot for the Buffalo General Hospital on the east. The underground subway system is along the Main Street on the west. Site Features: This 1.72 acres site consists of two parcels. Current Zoning and land Use: The site is located within the commercial zoning district. Currently a medical office building is being constructed on the site. The land use in the project area is characterized as urban mixed use, primarily commercial and community services. The community services include public and private medical and hospital facilities. Past Use of the Site: The Exxon/Mobil and its predecessors operated a gas station from approximately 1940s to 1982. The gas station building was demolished in 1982. Four underground storage tanks (USTs) were removed between 1981 and 2007. Other previous businesses at the site included an auto repair shop, UB medical and dental departments, restaurant, and a motel. Site Geology and Hydrogeology: Overburden soils in the area consist primarily of fill material at the ground surface. Geotechnical boring logs collected from the site in 2010 indicate that fill material such as sand, gravel and bricks varies in thickness from 2 to 10 feet across the site. Soil underlying the fill is comprised of interbedded sands and silt that are brown to olive - brown in color. Overburden soils are underlain by the Onondaga

FORMER MOBIL SERVICE STATION 99-MST (Continued) **S100117475**

	Limestone (bedrock), which is at approximately 100 feet below ground surface. The groundwater is approx. 32 feet bgs and flows towards northeast.
Env Problem:	This site is contaminated with petroleum hydrocarbons due to leaking underground storage tanks (USTs) from the former Mobil Service Station. Four underground storage tanks (USTs) were removed in 1981 (4000 gal, 3000 gal), 1982 (6000 gal), and 2007 (1000gal). A Remedial Investigation and IRM activities were conducted concurrently from December 2012 to August 2013. Approximately 16,000 cubic yards of contaminated soil were excavated and disposed off-site at a permitted disposal facility or treatment facility. Approximately 537,000 gallons of groundwater and LNAPL (light non-aqueous phase liquid) were also removed and sent off-site for treatment and disposal. Prior to the IRMs, elevated levels of petroleum related compounds such as benzene, toluene, ethylbenzene, and xylenes were found in both soil and groundwater at the site during site investigations. Contamination remaining after the IRM: Soil: Post excavation soil samples were collected from the bottom of the excavation, from approximately 30x30 foot grids and were tested for volatile organic compounds (VOCs). Twelve post-excavation soil samples were also tested for SVOCs (semi-volatile organic compounds), PCBs (polychlorinated bi-phenyls), pesticides, and metals. Depth of these soil samples varied from 26 feet to 40 feet bgs. The soil samples collected at the bottom of the excavation met Restricted Residential Soil Cleanup Objectives. Groundwater: Following excavation activities within the sheet piled area, seven new monitoring wells were installed within the excavated area. Depth of monitoring wells was approximately 16 feet below the basement floor elevation or 43 feet bgs. Contamination due to BTEX in five of the seven monitoring wells varied from 116 ppb to 15,110 ppb. Groundwater levels exceeded the groundwater standards for benzene (8.8-4,800 ppb; std.-1.0 ppb), toluene (42 -220 ppb; std. 5 ppb), ethylbenzene (20-1,600 ppb; std.- 5 ppb) and total xylenes (85-6,800 ppb; std. 5 ppb) during March 2014 sampling. Contaminated groundwater will continue to be treated in-situ by injecting oxygen release compounds (ORC) to break down the remaining petroleum hydrocarbons to achieve groundwater standards. The progress of the treatment will be monitored under a site management plan (SMP) and treatment will continue until remedial action objectives are met. Off-site groundwater contamination is being addressed under a separate Spill stipulation (Spill No. 9500234).
Health Problem:	Measures are in place to control the potential for coming in contact with residual subsurface soil and groundwater contamination remaining on the site.
Dump:	False
Structure:	False
Lagoon:	False
Landfill:	False
Pond:	False
Disp Start:	Not reported
Disp Term:	Not reported
Lat/Long:	Not reported
Dell:	Not reported
Record Add:	11/28/2011 2:58:00 PM
Record Upd:	12/11/2014 3:56:00 PM
Updated By:	jswalia
Own Op:	Document Repository
Sub Type:	NNN

FORMER MOBIL SERVICE STATION 99-MST (Continued) **S100117475**

Owner Name:	Reference Librarian
Owner Company:	Buffalo and Erie County Public Library
Owner Address:	1 Lafayette Square
Owner Addr2:	Not reported
Owner City,St,Zip:	Buffalo, NY 14203-1887
Owner Country:	United States of America
Own Op:	Owner
Sub Type:	NNN
Owner Name:	Robert W. Bragg
Owner Company:	Kaleida Properties, Inc.and Kaleida Health
Owner Address:	726 Exchange Street
Owner Addr2:	Suite 210
Owner City,St,Zip:	Buffao, NY 14210
Owner Country:	United States of America
Own Op:	Applicant/Requestor
Sub Type:	P03
Owner Name:	Denise M. Juron-Borgese
Owner Company:	Conventus Partners, LLC
Owner Address:	Centerpointe Corporate Park
Owner Addr2:	350 Essjay Road
Owner City,St,Zip:	Williamsville, NY 14221
Owner Country:	United States of America
HW Code:	C915260
Waste Type:	TOLUENE
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915260
Waste Type:	XYLENE (MIXED)
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915260
Waste Type:	ETHYLBENZENE
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915260
Waste Type:	NAPHTHALENE
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915260
Waste Type:	BENZENE
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915260
Waste Type:	1,2,4-TRIMETHYLBENZENE
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
Crossref ID:	C915260-03-12
Cross Ref Type Code:	23
Cross Ref Type:	Agreement/Consent Order Number
Record Added Date:	10/17/2014 11:15:00 AM
Record Updated:	10/17/2014 11:15:00 AM
Updated By:	jswalia
Crossref ID:	06-02-2012
Cross Ref Type Code:	26
Cross Ref Type:	Agreement/Consent Order Date
Record Added Date:	10/17/2014 11:16:00 AM
Record Updated:	10/17/2014 11:16:00 AM

FORMER MOBIL SERVICE STATION 99-MST (Continued) **S100117475**

Updated By:	jswalia
Crossref ID:	2014240622
Cross Ref Type Code:	25
Cross Ref Type:	County Recording Identifier
Record Added Date:	12/3/2014 11:22:00 AM
Record Updated:	12/3/2014 11:22:00 AM
Updated By:	jswalia
Crossref ID:	2014240633
Cross Ref Type Code:	25
Cross Ref Type:	County Recording Identifier
Record Added Date:	12/3/2014 11:24:00 AM
Record Updated:	12/3/2014 11:24:00 AM
Updated By:	jswalia
Crossref ID:	8806781
Cross Ref Type Code:	01
Cross Ref Type:	Spill No.
Record Added Date:	12/6/2011 9:45:00 AM
Record Updated:	12/6/2011 9:45:00 AM
Updated By:	BRWOLOSE
Crossref ID:	9500234
Cross Ref Type Code:	01
Cross Ref Type:	Spill No.
Record Added Date:	12/2/2011 10:32:00 AM
Record Updated:	12/2/2011 10:32:00 AM
Updated By:	BRWOLOSE

S83 **432 PEARL STREET** **NY ENG CONTROLS** **S110748431**
SSW **432 PEARL STREET** **NY INST CONTROL** **N/A**
1/4-1/2 **BUFFALO, NY 14202** **NY BROWNFIELDS**
0.336 mi.
1775 ft. **Site 3 of 3 in cluster S**

Relative: **Lower**
Actual: **616 ft.**

ENG CONTROLS:

Site Code:	437176
HW Code:	C915237
Control Code:	13
Control Type:	ENG
Date Record Added:	07/17/2013
Date Rec Updated:	04/11/2017
Updated By:	EWMELNYK
Site Description:	Location: The BCP site consists of two non-contiguous parcels in the City of Buffalo, Erie County. The BCP site contains a 0.45 acre parcel located at 432 Pearl Street and a 0.25 acre parcel located at 267 Franklin Street. The two parcels are adjacent to each other, but are separated by Asbury Alley owned by the City of Buffalo. The site is situated in an urban commercial district. The site is adjacent to BCP site C915208 also owned by the 432 Pearl Street BCP volunteer. The 432 Pearl Street BCP site and the adjacent BCP site are part of a common proposed redevelopment project. Site Features: The 432 Pearl Street parcel is a paved commercial parking lot. The 267 Franklin Street parcel site contains an occupied apartment building with a paved parking lot for the tenants. Current Zoning and Land Use: Both non-contiguous parcels that constitute the site are situated in the Downtown Opportunity (DO) zoning district which currently contains a mix of uses including apartment residences, restaurants, retail, entertainment, office and parking. Permitted use in the DO zoning district includes residential, office, (limited) retail, restaurant, hotel and entertainment. The surrounding parcels are currently used

432 PEARL STREET (Continued) **S110748431**

for a combination of commercial uses including surface parking, restaurant and entertainment. Past Use of the Site: Information concerning the use of both parcels dates back to the late 1800s when the area was predominantly closely spaced urban residential, interspersed with commercial businesses and establishments. 432 Pearl Street: In the late 1800s, the northern half of the parcel consisted of four separate lots with residential buildings facing Pearl Street and carriage sheds facing Asbury Alley. By the 1940s, one of the residences was demolished and converted to a surface parking lot. The balance of these residences were demolished in subsequent years and also converted to surface parking lots. No known date concerning the demolition of the residences and conversion to parking lots is available or provided. Continuing southward along this parcel, in the late 1800s, two lots also contained residences and two lots contained apartment/rooming houses. By the mid 1920, the two residences were replaced by a retail commercial building (record use indicates that a heating equipment company occupied the building). By the 1940s, the commercial building and apartment/rooming houses were demolished and converted to surface parking. 267 Franklin Street: In the late 1800s through 1926, land use consisted of two separate apartment buildings on this parcel. The northern half of the 267 Pearl Street parcel contained a residential apartment building facing Franklin Street. The apartment building appears to have been demolished between 1925 and 1946. No other land use for the former apartment building lot other than as a parking lot appears to have occurred after 1946. The southern half of the parcel contains the current tenement style apartment building which remains actively used as an occupied apartment building. Tenant parking is provided on the northern half of the site that contained the former apartment building. According to the BCP application, future development plans for the site, in conjunction with BCP site C915208, consists of a hotel with conference and parking facilities. As of 2015, development plans have changed and the site has been marketed for lease development. Site Geology and Hydrogeology: Overburden: The site is located within the Erie-Ontario lake plain physiographic province, which is typified by little topographic relief and gentle slope toward Lake Erie, except in the immediate vicinity of major drainage ways. The surficial geology of the Lake Erie plain generally consists of a thin glacial till layer, glaciolacustrine (lake-laid laminated silts and clays) deposits, alluvium, and soils derived by these deposits. Glacial till deposits were not encountered at the site except for a thin layer (1 to 2 feet thick) above limestone bedrock. The site geology consists of a lake-laid sandy ridge deposit about 40 to 45 feet thick with several interbedded silty clay lenses. The 432 Pearl Street parcel is covered by a thin soil/fill layer approximately 2 to 5 feet thick. The fill is characteristic of urban fill common in the City of Buffalo. Bedrock: The site is situated over the Onondaga formation limestone. Limestone bedrock was encountered about 52 feet below the surface. Hydrogeology: Unconfined shallow groundwater was encountered within the native soils at depths of approximately 10 to 12 feet below ground surface. Because of a silty clay soil lens within the sandy soil profile found at a depth of approximately 25 to 30 feet below ground surface, the site has a defined shallow and deep groundwater zone. The deep groundwater hydrostatic surface is nominally below the shallow groundwater surface. Site groundwater flow gradient (shallow and deep) appears to flow in a south/southwest direction. Regional groundwater appears to flow west/southwest toward

432 PEARL STREET (Continued) **S110748431**

Lake Erie and confluence of the Buffalo River.

Env Problem: Pre-Remedial Action: An RI commenced in this site and adjoining BCP site C915208 in late 2006. Results from this work revealed chlorinated solvents commonly used by dry cleaners (tetrachloroethene [PCE]) in soils up to 20,000 microgram/kilogram (ug/kg) PCE and shallow groundwater up to 19 parts per million (ppm) PCE at adjoining the BCP site C915208 parcel 275-277 Franklin St. The water quality standard for PCE is 0.005 ppm. The source area in shallow groundwater contamination appears to be centered around MW-5 on BCP site C915208. Investigation of the 267 Franklin Street parcel initially revealed chlorinated solvents in shallow groundwater at levels up to 18 ppm for PCE. The 2006 RI revealed an extensive shallow groundwater contaminant plume located on adjoining companion BCP site C915208 had migrated onto the 267 Franklin Street parcel, which is situated downgradient of BCP site C915208. The RI results suggest that the 432 Pearl Street parcel is on the fringe of the shallow groundwater contaminant plume emanating from source area (BCP site C915208), and the shallow groundwater contaminant levels were just slightly above the groundwater quality standard (0.005 ppm) for the VOC contaminants of concern. The 267 Franklin Street parcel is immediately downgradient of the source area (BCP site C915208), and as a result, the PCE contaminant levels on site were significantly higher in the shallow groundwater zone (up to 18 ppm prior to the implementation of an IRM). The deep groundwater zone was impacted, but to a lesser degree. Investigation of off-site areas by DEC on adjoining downgradient properties revealed the extensive chlorinated VOC plume extended to the south/southwest. A supplemental site investigation was conducted in 2008 to develop an IRM for BCP site C915208. An IRM to treat contaminated groundwater via in-situ methods was implemented in 2008 at the adjoining companion BCP site C915208. Because of a silty clay soil lens midway between the surface and bedrock, two distinct groundwater zones exist at the site. The silty clay soil lens has limited some downward migration of the dissolved contamination. However, the 2008 supplemental investigation of companion BCP site C915208 confirmed that deeper groundwater zone is contaminated with the chlorinated solvents, with one deep monitoring well at adjoining companion BCP site C915208 initially containing 9.4 ppm PCE. PCE levels at this monitoring point have dropped to 0.091 ppm PCE during the 2012 sampling event. The 2008 investigation confirmed that the bedrock zone does not appear to be contaminated with chlorinated solvents. An additional investigative boring and deep monitoring well was installed in 2012 at 267 Franklin Street to further assess deep groundwater impacts. Deep groundwater sampling confirmed dissolved chlorinated VOC contamination at levels up to 0.069 ppm total VOCs at this new deep well. A thin fill layer (3-5 feet) at the 432 Pearl Street parcel contains several SVOCs [benzo(a)anthracene, benzo(b)flourene, benzo(a)pyrene and dibenzo(a,h) anthracene) at levels slightly above commercial SCOs. There were no exceedances for metals above commercial levels at both parcels. Because of the extent of the dissolved shallow plume, vapor intrusion (VI) from the chlorinated solvents was a concern with structures on around the BCP site. Prior to the BCP volunteer s acquisition of the apartment building at 267 Franklin Street, a soil VI evaluation was completed by the Department in 2008. The VI evaluation revealed PCE impacts to indoor air quality inside the apartment building. The Department subsequently installed a sub-slab depressurization system (SSDS) inside the apartment building to

432 PEARL STREET (Continued) **S110748431**

address VI and reduce indoor air concentrations of PCE. Vapor intrusion was confirmed in another off-site building in 2011 and an SSDS was installed in 2012. Additional investigations were required to assess off-site impacts, health and safety concerns, the presence of DNAPL, and bedrock aquifer contamination. The DEC completed an off-site groundwater evaluation in 2009 which revealed that an elongated PCE plume has migrated in a southwesterly direction across Franklin Street. PCE contamination was revealed primarily in the shallow groundwater zone. Deep groundwater was impacted at one of the off-site monitoring points along Franklin Street. Additional investigation of impacts to downgradient properties and structures was implemented in 2011 and 2012 and revealed shallow groundwater zone contamination, over 3 ppm for PCE, at another downgradient property along Franklin Street. Post Remedial Action: A DEC approved in-situ remedial action measure was implemented in April 2014 and consisted of the following: ENHANCED SHALLOW GROUNDWATER BIOREMEDIATION In-situ shallow groundwater treatment was implemented in 2014 for site C915208 residual source only. Enhanced natural biodegradation of chlorinated VOCs (PCE and its breakdown products)was implemented in an area with the highest residual VOC contaminated shallow groundwater in the immediate vicinity of MW-5 (residual source area at Site C915208) to propagate the biological breakdown of contaminants through anaerobic reductive dechlorination. A mix of nutrients, buffers and chemical agents were injected into the subsurface to a target depth between 10 and 20 feet below ground surface to promote dechlorinating microbe growth. The microbial reductive dechlorination process was also enhanced with the injection of micron scale zero valent iron (ZVI) for physio-chemical abiotic reduction of residual chlorinated VOCs. No specific remediation measures to address residual chlorinated VOC contamination in the deep groundwater zone was proposed or implemented. PLUME REDUCTION Plume reduction will be accomplished by treating the groundwater for chlorinated VOCs via in-situ treatment methods such that the groundwater leaving the site has been effectively treated to water quality criteria. At this site, the shallow chlorinated VOC contaminant plume has migrated onto an adjoining property at 275 Franklin Street which is part of the adjoining BCP project site C915208 (275 Franklin Street Site). In 2014, a contaminant plume reduction measure was accomplished by injecting in-situ treatment materials along a series of injection points 10 to 20 feet in depth along accessible western and southern perimeter areas of the site forming a vertical permeable reactive treatment zone. The in-situ treatment materials utilized the same materials used in the source area treatment system to promote enhanced natural anaerobic reductive dechlorination and physio-chemical reduction of residual chlorinated VOC contamination in the shallow groundwater zone. No specific remediation measures were implemented to address off-site migration of residual chlorinated VOC contamination in the deep groundwater zone.

Health Problem: Direct contact with contaminants in the soil is unlikely because the site is covered with a building and pavement. People are not coming into contact with the contaminated groundwater because the area is served by a public water supply that is not affected by this contamination. Volatile organic compounds in the groundwater may move into the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the

432 PEARL STREET (Continued) **S110748431**

subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. A sub-slab depressurization system (systems that ventilate/remove the air beneath the building) was installed in the on-site building to prevent the indoor air quality from being affected by the contamination in soil vapor beneath the buildings. The potential exists for the inhalation of site contaminants due to soil vapor intrusion for any future on-site development and occupancy.
Not reported
Dump: False
Structure: False
Lagoon: False
Landfill: False
Pond: False
Disp Start: Not reported
Disp Term: Not reported
Lat/Long: Not reported
Dell: Not reported
Record Add: 10/1/2012 12:15:00 PM
Record Upd: 12/16/2014 10:09:00 AM
Updated By: ewmelnyk
Own Op: Document Repository
Sub Type: NNN
Owner Name: Michael Mahaney
Owner Company: Buffalo and Erie Co. Public Library
Owner Address: 1 LaFayette Square
Owner Addr2: Not reported
Owner City,St,Zip: Buffalo, NY 14203
Owner Country: United States of America
Own Op: Applicant/Requestor
Sub Type: P03
Owner Name: Mark D. Croce
Owner Company: Buffalo Development Corporation
Owner Address: 257 Franklin Street
Owner Addr2: Not reported
Owner City,St,Zip: Buffalo, NY 14202
Owner Country: United States of America
HW Code: C915237
Waste Type: TETRACHLOROETHYLENE (PCE)
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915237
Waste Type: tetrachloroethene (PCE)
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915237
Waste Type: TRICHLOROETHENE (TCE)
Waste Quantity: UNKNOWN
Waste Code: Not reported
Crossref ID: C915208
Cross Ref Type Code: 22
Cross Ref Type: BCP Site ID
Record Added Date: 7/8/2010 2:40:00 PM
Record Updated: 7/8/2010 2:40:00 PM
Updated By: MOBARRIE

Site Code: 437176
HW Code: C915237

432 PEARL STREET (Continued) **S110748431**

Control Code: 15
Control Type: ENG
Date Record Added: 07/17/2013
Date Rec Updated: 04/11/2017
Updated By: EWMELNYK
Site Description: Location: The BCP site consists of two non-contiguous parcels in the City of Buffalo, Erie County. The BCP site contains a 0.45 acre parcel located at 432 Pearl Street and a 0.25 acre parcel located at 267 Franklin Street. The two parcels are adjacent to each other, but are separated by Asbury Alley owned by the City of Buffalo. The site is situated in an urban commercial district. The site is adjacent to BCP site C915208 also owned by the 432 Pearl Street BCP volunteer. The 432 Pearl Street BCP site and the adjacent BCP site are part of a common proposed redevelopment project. Site Features: The 432 Pearl Street parcel is a paved commercial parking lot. The 267 Franklin Street parcel site contains an occupied apartment building with a paved parking lot for the tenants. Current Zoning and Land Use: Both non-contiguous parcels that constitute the site are situated in the Downtown Opportunity (DO) zoning district which currently contains a mix of uses including apartment residences, restaurants, retail, entertainment, office and parking. Permitted use in the DO zoning district includes residential, office, (limited) retail, restaurant, hotel and entertainment. The surrounding parcels are currently used for a combination of commercial uses including surface parking, restaurant and entertainment. Past Use of the Site: Information concerning the use of both parcels dates back to the late 1800s when the area was predominantly closely spaced urban residential, interspersed with commercial businesses and establishments. 432 Pearl Street: In the late 1800s, the northern half of the parcel consisted of four separate lots with residential buildings facing Pearl Street and carriage sheds facing Asbury Alley. By the 1940s, one of the residences was demolished and converted to a surface parking lot. The balance of these residences were demolished in subsequent years and also converted to surface parking lots. No known date concerning the demolition of the residences and conversion to parking lots is available or provided. Continuing southward along this parcel, in the late 1800s, two lots also contained residences and two lots contained apartment/rooming houses. By the mid 1920, the two residences were replaced by a retail commercial building (record use indicates that a heating equipment company occupied the building). By the 1940s, the commercial building and apartment/rooming houses were demolished and converted to surface parking. 267 Franklin Street: In the late 1800s through 1926, land use consisted of two separate apartment buildings on this parcel. The northern half of the 267 Pearl Street parcel contained a residential apartment building facing Franklin Street. The apartment building appears to have been demolished between 1925 and 1946. No other land use for the former apartment building lot other than as a parking lot appears to have occurred after 1946. The southern half of the parcel contains the current tenement style apartment building which remains actively used as an occupied apartment building. Tenant parking is provided on the northern half of the site that contained the former apartment building. According to the BCP application, future development plans for the site, in conjunction with BCP site C915208, consists of a hotel with conference and parking facilities. As of 2015, development plans have changed and the site has been marketed for lease development. Site Geology and Hydrogeology: Overburden: The site is located within the

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Erie-Ontario lake plain physiographic province, which is typified by little topographic relief and gentle slope toward Lake Erie, except in the immediate vicinity of major drainage ways. The surficial geology of the Lake Erie plain generally consists of a thin glacial till layer, glaciolacustrine (lake-laid laminated silts and clays) deposits, alluvium, and soils derived by these deposits. Glacial till deposits were not encountered at the site except for a thin layer (1 to 2 feet thick) above limestone bedrock. The site geology consists of a lake-laid sandy ridge deposit about 40 to 45 feet thick with several interbedded silty clay lenses. The 432 Pearl Street parcel is covered by a thin soil/fill layer approximately 2 to 5 feet thick. The fill is characteristic of urban fill common in the City of Buffalo. Bedrock: The site is situated over the Onondaga formation limestone. Limestone bedrock was encountered about 52 feet below the surface. Hydrogeology: Unconfined shallow groundwater was encountered within the native soils at depths of approximately 10 to 12 feet below ground surface. Because of a silty clay soil lens within the sandy soil profile found at a depth of approximately 25 to 30 feet below ground surface, the site has a defined shallow and deep groundwater zone. The deep groundwater hydrostatic surface is nominally below the shallow groundwater surface. Site groundwater flow gradient (shallow and deep) appears to flow in a south/southwest direction. Regional groundwater appears to flow west/southwest toward Lake Erie and confluence of the Buffalo River.

Env Problem: Pre-Remedial Action: An RI commenced in this site and adjoining BCP site C915208 in late 2006. Results from this work revealed chlorinated solvents commonly used by dry cleaners (tetrachloroethene [PCE]) in soils up to 20,000 microgram/kilogram (ug/kg) PCE and shallow groundwater up to 19 parts per million (ppm) PCE at adjoining the BCP site C915208 parcel 275-277 Franklin St. The water quality standard for PCE is 0.005 ppm. The source area in shallow groundwater contamination appears to be centered around MW-5 on BCP site C915208. Investigation of the 267 Franklin Street parcel initially revealed chlorinated solvents in shallow groundwater at levels up to 18 ppm for PCE. The 2006 RI revealed an extensive shallow groundwater contaminant plume located on adjoining companion BCP site C915208 had migrated onto the 267 Franklin Street parcel, which is situated downgradient of BCP site C915208. The RI results suggest that the 432 Pearl Street parcel is on the fringe of the shallow groundwater contaminant plume emanating from source area (BCP site C915208), and the shallow groundwater contaminant levels were just slightly above the groundwater quality standard (0.005 ppm) for the VOC contaminants of concern. The 267 Franklin Street parcel is immediately downgradient of the source area (BCP site C915208), and as a result, the PCE contaminant levels on site were significantly higher in the shallow groundwater zone (up to 18 ppm prior to the implementation of an IRM). The deep groundwater zone was impacted, but to a lesser degree. Investigation of off-site areas by DEC on adjoining downgradient properties revealed the extensive chlorinated VOC plume extended to the south/southwest. A supplemental site investigation was conducted in 2008 to develop an IRM for BCP site C915208. An IRM to treat contaminated groundwater via in-situ methods was implemented in 2008 at the adjoining companion BCP site C915208. Because of a silty clay soil lens midway between the surface and bedrock, two distinct groundwater zones exist at the site. The silty clay soil lens has limited some downward migration of the dissolved contamination. However, the 2008 supplemental investigation of

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companion BCP site C915208 confirmed that deeper groundwater zone is contaminated with the chlorinated solvents, with one deep monitoring well at adjoining companion BCP site C915208 initially containing 9.4 ppm PCE. PCE levels at this monitoring point have dropped to 0.091 ppm PCE during the 2012 sampling event. The 2008 investigation confirmed that the bedrock zone does not appear to be contaminated with chlorinated solvents. An additional investigative boring and deep monitoring well was installed in 2012 at 267 Franklin Street to further assess deep groundwater impacts. Deep groundwater sampling confirmed dissolved chlorinated VOC contamination at levels up to 0.069 ppm total VOCs at this new deep well. A thin fill layer (3-5 feet) at the 432 Pearl Street parcel contains several SVOCs [benzo(a)anthracene, benzo(b)flourene, benzo(a)pyrene and dibenzo(a,h) anthracene) at levels slightly above commercial SCOs. There were no exceedances for metals above commercial levels at both parcels. Because of the extent of the dissolved shallow plume, vapor intrusion (VI) from the chlorinated solvents was a concern with structures on around the BCP site. Prior to the BCP volunteer s acquisition of the apartment building at 267 Franklin Street, a soil VI evaluation was completed by the Department in 2008. The VI evaluation revealed PCE impacts to indoor air quality inside the apartment building. The Department subsequently installed a sub-slab depressurization system (SSDS) inside the apartment building to address VI and reduce indoor air concentrations of PCE. Vapor intrusion was confirmed in another off-site building in 2011 and an SSDS was installed in 2012. Additional investigations were required to assess off-site impacts, health and safety concerns, the presence of DNAPL, and bedrock aquifer contamination. The DEC completed an off-site groundwater evaluation in 2009 which revealed that an elongated PCE plume has migrated in a southwesterly direction across Franklin Street. PCE contamination was revealed primarily in the shallow groundwater zone. Deep groundwater was impacted at one of the off-site monitoring points along Franklin Street. Additional investigation of impacts to downgradient properties and structures was implemented in 2011 and 2012 and revealed shallow groundwater zone contamination, over 3 ppm for PCE, at another downgradient property along Franklin Street. Post Remedial Action: A DEC approved in-situ remedial action measure was implemented in April 2014 and consisted of the following: ENHANCED SHALLOW GROUNDWATER BIOREMEDIATION In-situ shallow groundwater treatment was implemented in 2014 for site C915208 residual source only. Enhanced natural biodegradation of chlorinated VOCs (PCE and its breakdown products)was implemented in an area with the highest residual VOC contaminated shallow groundwater in the immediate vicinity of MW-5 (residual source area at Site C915208) to propagate the biological breakdown of contaminants through anaerobic reductive dechlorination. A mix of nutrients, buffers and chemical agents were injected into the subsurface to a target depth between 10 and 20 feet below ground surface to promote dechlorinating microbe growth. The microbial reductive dechlorination process was also enhanced with the injection of micron scale zero valent iron (ZVI) for physio-chemical abiotic reduction of residual chlorinated VOCs. No specific remediation measures to address residual chlorinated VOC contamination in the deep groundwater zone was proposed or implemented. PLUME REDUCTION Plume reduction will be accomplished by treating the groundwater for chlorinated VOCs via in-situ treatment methods such that the groundwater leaving the site has been effectively treated to water

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	quality criteria. At this site, the shallow chlorinated VOC contaminant plume has migrated onto an adjoining property at 275 Franklin Street which is part of the adjoining BCP project site C915208 (275 Franklin Street Site). In 2014, a contaminant plume reduction measure was accomplished by injecting in-situ treatment materials along a series of injection points 10 to 20 feet in depth along accessible western and southern perimeter areas of the site forming a vertical permeable reactive treatment zone. The in-situ treatment materials utilized the same materials used in the source area treatment system to promote enhanced natural anaerobic reductive dechlorination and physio-chemical reduction of residual chlorinated VOC contamination in the shallow groundwater zone. No specific remediation measures were implemented to address off-site migration of residual chlorinated VOC contamination in the deep groundwater zone.
Health Problem:	Direct contact with contaminants in the soil is unlikely because the site is covered with a building and pavement. People are not coming into contact with the contaminated groundwater because the area is served by a public water supply that is not affected by this contamination. Volatile organic compounds in the groundwater may move into the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. A sub-slab depressurization system (systems that ventilate/remove the air beneath the building) was installed in the on-site building to prevent the indoor air quality from being affected by the contamination in soil vapor beneath the buildings. The potential exists for the inhalation of site contaminants due to soil vapor intrusion for any future on-site development and occupancy.
	Not reported
Dump:	False
Structure:	False
Lagoon:	False
Landfill:	False
Pond:	False
Disp Start:	Not reported
Disp Term:	Not reported
Lat/Long:	Not reported
Dell:	Not reported
Record Add:	10/1/2012 12:15:00 PM
Record Upd:	12/16/2014 10:09:00 AM
Updated By:	ewmelnyk
Own Op:	Document Repository
Sub Type:	NNN
Owner Name:	Michael Mahaney
Owner Company:	Buffalo and Erie Co. Public Library
Owner Address:	1 LaFayette Square
Owner Addr2:	Not reported
Owner City,St,Zip:	Buffalo, NY 14203
Owner Country:	United States of America
Own Op:	Applicant/Requestor
Sub Type:	P03
Owner Name:	Mark D. Croce
Owner Company:	Buffalo Development Corporation
Owner Address:	257 Franklin Street
Owner Addr2:	Not reported

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Owner City,St,Zip:	Buffalo, NY 14202
Owner Country:	United States of America
HW Code:	C915237
Waste Type:	TETRACHLOROETHYLENE (PCE)
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915237
Waste Type:	tetrachloroethene (PCE)
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915237
Waste Type:	TRICHLOROETHENE (TCE)
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
Crossref ID:	C915208
Cross Ref Type Code:	22
Cross Ref Type:	BCP Site ID
Record Added Date:	7/8/2010 2:40:00 PM
Record Updated:	7/8/2010 2:40:00 PM
Updated By:	MOBARRIE

INST CONTROL:

Site Code:	437176
Control Name:	Landuse Restriction
HW Code:	C915237
Control Code:	25
Control Type:	INST
Dt record added:	07/17/2013
Dt rec updated:	04/11/2017
Updated By:	EWMELNYK
Site Code:	437176
Site Description:	Location: The BCP site consists of two non-contiguous parcels in the City of Buffalo, Erie County. The BCP site contains a 0.45 acre parcel located at 432 Pearl Street and a 0.25 acre parcel located at 267 Franklin Street. The two parcels are adjacent to each other, but are separated by Asbury Alley owned by the City of Buffalo. The site is situated in an urban commercial district. The site is adjacent to BCP site C915208 also owned by the 432 Pearl Street BCP volunteer. The 432 Pearl Street BCP site and the adjacent BCP site are part of a common proposed redevelopment project. Site Features: The 432 Pearl Street parcel is a paved commercial parking lot. The 267 Franklin Street parcel site contains an occupied apartment building with a paved parking lot for the tenants. Current Zoning and Land Use: Both non-contiguous parcels that constitute the site are situated in the Downtown Opportunity (DO) zoning district which currently contains a mix of uses including apartment residences, restaurants, retail, entertainment, office and parking. Permitted use in the DO zoning district includes residential, office, (limited) retail, restaurant, hotel and entertainment. The surrounding parcels are currently used for a combination of commercial uses including surface parking, restaurant and entertainment. Past Use of the Site: Information concerning the use of both parcels dates back to the late 1800s when the area was predominantly closely spaced urban residential, interspersed with commercial businesses and establishments. 432 Pearl Street: In the late 1800s, the northern half of the parcel consisted of four separate lots with residential buildings facing Pearl Street and carriage sheds facing Asbury Alley. By the 1940s, one of the

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residences was demolished and converted to a surface parking lot. The balance of these residences were demolished in subsequent years and also converted to surface parking lots. No known date concerning the demolition of the residences and conversion to parking lots is available or provided. Continuing southward along this parcel, in the late 1800s, two lots also contained residences and two lots contained apartment/rooming houses. By the mid 1920, the two residences were replaced by a retail commercial building (record use indicates that a heating equipment company occupied the building). By the 1940s, the commercial building and apartment/rooming houses were demolished and converted to surface parking. 267 Franklin Street: In the late 1800s through 1926, land use consisted of two separate apartment buildings on this parcel. The northern half of the 267 Pearl Street parcel contained a residential apartment building facing Franklin Street. The apartment building appears to have been demolished between 1925 and 1946. No other land use for the former apartment building lot other than as a parking lot appears to have occurred after 1946. The southern half of the parcel contains the current tenement style apartment building which remains actively used as an occupied apartment building. Tenant parking is provided on the northern half of the site that contained the former apartment building. According to the BCP application, future development plans for the site, in conjunction with BCP site C915208, consists of a hotel with conference and parking facilities. As of 2015, development plans have changed and the site has been marketed for lease development. Site Geology and Hydrogeology: Overburden: The site is located within the Erie-Ontario lake plain physiographic province, which is typified by little topographic relief and gentle slope toward Lake Erie, except in the immediate vicinity of major drainage ways. The surficial geology of the Lake Erie plain generally consists of a thin glacial till layer, glaciolacustrine (lake-laid laminated silts and clays) deposits, alluvium, and soils derived by these deposits. Glacial till deposits were not encountered at the site except for a thin layer (1 to 2 feet thick) above limestone bedrock. The site geology consists of a lake-laid sandy ridge deposit about 40 to 45 feet thick with several interbedded silty clay lenses. The 432 Pearl Street parcel is covered by a thin soil/fill layer approximately 2 to 5 feet thick. The fill is characteristic of urban fill common in the City of Buffalo. Bedrock: The site is situated over the Onondaga formation limestone. Limestone bedrock was encountered about 52 feet below the surface. Hydrogeology: Unconfined shallow groundwater was encountered within the native soils at depths of approximately 10 to 12 feet below ground surface. Because of a silty clay soil lens within the sandy soil profile found at a depth of approximately 25 to 30 feet below ground surface, the site has a defined shallow and deep groundwater zone. The deep groundwater hydrostatic surface is nominally below the shallow groundwater surface. Site groundwater flow gradient (shallow and deep) appears to flow in a south/southwest direction. Regional groundwater appears to flow west/southwest toward Lake Erie and confluence of the Buffalo River.

Env Problem: Pre-Remedial Action: An RI commenced in this site and adjoining BCP site C915208 in late 2006. Results from this work revealed chlorinated solvents commonly used by dry cleaners (tetrachloroethene [PCE]) in soils up to 20,000 microgram/kilogram (ug/kg) PCE and shallow groundwater up to 19 parts per million (ppm) PCE at adjoining the BCP site C915208 parcel 275-277 Franklin St. The water quality standard for PCE is 0.005 ppm. The source area in shallow groundwater

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contamination appears to be centered around MW-5 on BCP site C915208. Investigation of the 267 Franklin Street parcel initially revealed chlorinated solvents in shallow groundwater at levels up to 18 ppm for PCE. The 2006 RI revealed an extensive shallow groundwater contaminant plume located on adjoining companion BCP site C915208 had migrated onto the 267 Franklin Street parcel, which is situated downgradient of BCP site C915208. The RI results suggest that the 432 Pearl Street parcel is on the fringe of the shallow groundwater contaminant plume emanating from source area (BCP site C915208), and the shallow groundwater contaminant levels were just slightly above the groundwater quality standard (0.005 ppm) for the VOC contaminants of concern. The 267 Franklin Street parcel is immediately downgradient of the source area (BCP site C915208), and as a result, the PCE contaminant levels on site were significantly higher in the shallow groundwater zone (up to 18 ppm prior to the implementation of an IRM). The deep groundwater zone was impacted, but to a lesser degree. Investigation of off-site areas by DEC on adjoining downgradient properties revealed the extensive chlorinated VOC plume extended to the south/southwest. A supplemental site investigation was conducted in 2008 to develop an IRM for BCP site C915208. An IRM to treat contaminated groundwater via in-situ methods was implemented in 2008 at the adjoining companion BCP site C915208. Because of a silty clay soil lens midway between the surface and bedrock, two distinct groundwater zones exist at the site. The silty clay soil lens has limited some downward migration of the dissolved contamination. However, the 2008 supplemental investigation of companion BCP site C915208 confirmed that deeper groundwater zone is contaminated with the chlorinated solvents, with one deep monitoring well at adjoining companion BCP site C915208 initially containing 9.4 ppm PCE. PCE levels at this monitoring point have dropped to 0.091 ppm PCE during the 2012 sampling event. The 2008 investigation confirmed that the bedrock zone does not appear to be contaminated with chlorinated solvents. An additional investigative boring and deep monitoring well was installed in 2012 at 267 Franklin Street to further assess deep groundwater impacts. Deep groundwater sampling confirmed dissolved chlorinated VOC contamination at levels up to 0.069 ppm total VOCs at this new deep well. A thin fill layer (3-5 feet) at the 432 Pearl Street parcel contains several SVOCs [benzo(a)anthracene, benzo(b)flourene, benzo(a)pyrene and dibenzo(a,h) anthracene) at levels slightly above commercial SCOs. There were no exceedances for metals above commercial levels at both parcels. Because of the extent of the dissolved shallow plume, vapor intrusion (VI) from the chlorinated solvents was a concern with structures on around the BCP site. Prior to the BCP volunteer s acquisition of the apartment building at 267 Franklin Street, a soil VI evaluation was completed by the Department in 2008. The VI evaluation revealed PCE impacts to indoor air quality inside the apartment building. The Department subsequently installed a sub-slab depressurization system (SSDS) inside the apartment building to address VI and reduce indoor air concentrations of PCE. Vapor intrusion was confirmed in another off-site building in 2011 and an SSDS was installed in 2012. Additional investigations were required to assess off-site impacts, health and safety concerns, the presence of DNAPL, and bedrock aquifer contamination. The DEC completed an off-site groundwater evaluation in 2009 which revealed that an elongated PCE plume has migrated in a southwesterly direction across Franklin Street. PCE contamination was revealed primarily in the

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shallow groundwater zone. Deep groundwater was impacted at one of the off-site monitoring points along Franklin Street. Additional investigation of impacts to downgradient properties and structures was implemented in 2011 and 2012 and revealed shallow groundwater zone contamination, over 3 ppm for PCE, at another downgradient property along Franklin Street. Post Remedial Action: A DEC approved in-situ remedial action measure was implemented in April 2014 and consisted of the following: ENHANCED SHALLOW GROUNDWATER BIOREMEDIATION In-situ shallow groundwater treatment was implemented in 2014 for site C915208 residual source only. Enhanced natural biodegradation of chlorinated VOCs (PCE and its breakdown products)was implemented in an area with the highest residual VOC contaminated shallow groundwater in the immediate vicinity of MW-5 (residual source area at Site C915208) to propagate the biological breakdown of contaminants through anaerobic reductive dechlorination. A mix of nutrients, buffers and chemical agents were injected into the subsurface to a target depth between 10 and 20 feet below ground surface to promote dechlorinating microbe growth. The microbial reductive dechlorination process was also enhanced with the injection of micron scale zero valent iron (ZVI) for physio-chemical abiotic reduction of residual chlorinated VOCs. No specific remediation measures to address residual chlorinated VOC contamination in the deep groundwater zone was proposed or implemented. PLUME REDUCTION Plume reduction will be accomplished by treating the groundwater for chlorinated VOCs via in-situ treatment methods such that the groundwater leaving the site has been effectively treated to water quality criteria. At this site, the shallow chlorinated VOC contaminant plume has migrated onto an adjoining property at 275 Franklin Street which is part of the adjoining BCP project site C915208 (275 Franklin Street Site). In 2014, a contaminant plume reduction measure was accomplished by injecting in-situ treatment materials along a series of injection points 10 to 20 feet in depth along accessible western and southern perimeter areas of the site forming a vertical permeable reactive treatment zone. The in-situ treatment materials utilized the same materials used in the source area treatment system to promote enhanced natural anaerobic reductive dechlorination and physio-chemical reduction of residual chlorinated VOC contamination in the shallow groundwater zone. No specific remediation measures were implemented to address off-site migration of residual chlorinated VOC contamination in the deep groundwater zone.

Health Problem: Direct contact with contaminants in the soil is unlikely because the site is covered with a building and pavement. People are not coming into contact with the contaminated groundwater because the area is served by a public water supply that is not affected by this contamination. Volatile organic compounds in the groundwater may move into the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. A sub-slab depressurization system (systems that ventilate/remove the air beneath the building) was installed in the on-site building to prevent the indoor air quality from being affected by the contamination in soil vapor beneath the buildings. The potential exists for the inhalation of site contaminants due to soil vapor intrusion for any future on-site development and occupancy.
Not reported

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Dump: False
Structure: False
Lagoon: False
Landfill: False
Pond: False
Disp Start: Not reported
Disp Term: Not reported
Lat/Long: Not reported
Dell: Not reported
Record Add: 10/1/2012 12:15:00 PM
Record Upd: 12/16/2014 10:09:00 AM
Updated By: ewmelnyk
Own Op: Document Repository
Sub Type: NNN
Owner Name: Michael Mahaney
Owner Company: Buffalo and Erie Co. Public Library
Owner Address: 1 LaFayette Square
Owner Addr2: Not reported
Owner City,St,Zip: Buffalo, NY 14203
Owner Country: United States of America
Own Op: Applicant/Requestor
Sub Type: P03
Owner Name: Mark D. Croce
Owner Company: Buffalo Development Corporation
Owner Address: 257 Franklin Street
Owner Addr2: Not reported
Owner City,St,Zip: Buffalo, NY 14202
Owner Country: United States of America
HW Code: C915237
Waste Type: TETRACHLOROETHYLENE (PCE)
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915237
Waste Type: tetrachloroethene (PCE)
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915237
Waste Type: TRICHLOROETHENE (TCE)
Waste Quantity: UNKNOWN
Waste Code: Not reported
Crossref ID: C915208
Cross Ref Type Code: 22
Cross Ref Type: BCP Site ID
Record Added Date: 7/8/2010 2:40:00 PM
Record Updated: 7/8/2010 2:40:00 PM
Updated By: MOBARRIE

Site Code: 437176
Control Name: Ground Water Use Restriction
HW Code: C915237
Control Code: 08
Control Type: INST
Dt record added: 07/17/2013
Dt rec updated: 04/11/2017
Updated By: EWMELNYK
Site Code: 437176
Site Description: Location: The BCP site consists of two non-contiguous parcels in the

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deposits were not encountered at the site except for a thin layer (1 to 2 feet thick) above limestone bedrock. The site geology consists of a lake-laid sandy ridge deposit about 40 to 45 feet thick with several interbedded silty clay lenses. The 432 Pearl Street parcel is covered by a thin soil/fill layer approximately 2 to 5 feet thick. The fill is characteristic of urban fill common in the City of Buffalo. Bedrock: The site is situated over the Onondaga formation limestone. Limestone bedrock was encountered about 52 feet below the surface. Hydrogeology: Unconfined shallow groundwater was encountered within the native soils at depths of approximately 10 to 12 feet below ground surface. Because of a silty clay soil lens within the sandy soil profile found at a depth of approximately 25 to 30 feet below ground surface, the site has a defined shallow and deep groundwater zone. The deep groundwater hydrostatic surface is nominally below the shallow groundwater surface. Site groundwater flow gradient (shallow and deep) appears to flow in a south/southwest direction. Regional groundwater appears to flow west/southwest toward Lake Erie and confluence of the Buffalo River.

Env Problem: Pre-Remedial Action: An RI commenced in this site and adjoining BCP site C915208 in late 2006. Results from this work revealed chlorinated solvents commonly used by dry cleaners (tetrachloroethene [PCE]) in soils up to 20,000 microgram/kilogram (ug/kg) PCE and shallow groundwater up to 19 parts per million (ppm) PCE at adjoining the BCP site C915208 parcel 275-277 Franklin St. The water quality standard for PCE is 0.005 ppm. The source area in shallow groundwater contamination appears to be centered around MW-5 on BCP site C915208. Investigation of the 267 Franklin Street parcel initially revealed chlorinated solvents in shallow groundwater at levels up to 18 ppm for PCE. The 2006 RI revealed an extensive shallow groundwater contaminant plume located on adjoining companion BCP site C915208 had migrated onto the 267 Franklin Street parcel, which is situated downgradient of BCP site C915208. The RI results suggest that the 432 Pearl Street parcel is on the fringe of the shallow groundwater contaminant plume emanating from source area (BCP site C915208), and the shallow groundwater contaminant levels were just slightly above the groundwater quality standard (0.005 ppm) for the VOC contaminants of concern. The 267 Franklin Street parcel is immediately downgradient of the source area (BCP site C915208), and as a result, the PCE contaminant levels on site were significantly higher in the shallow groundwater zone (up to 18 ppm prior to the implementation of an IRM). The deep groundwater zone was impacted, but to a lesser degree. Investigation of off-site areas by DEC on adjoining downgradient properties revealed the extensive chlorinated VOC plume extended to the south/southwest. A supplemental site investigation was conducted in 2008 to develop an IRM for BCP site C915208. An IRM to treat contaminated groundwater via in-situ methods was implemented in 2008 at the adjoining companion BCP site C915208. Because of a silty clay soil lens midway between the surface and bedrock, two distinct groundwater zones exist at the site. The silty clay soil lens has limited some downward migration of the dissolved contamination. However, the 2008 supplemental investigation of companion BCP site C915208 confirmed that deeper groundwater zone is contaminated with the chlorinated solvents, with one deep monitoring well at adjoining companion BCP site C915208 initially containing 9.4 ppm PCE. PCE levels at this monitoring point have dropped to 0.091 ppm PCE during the 2012 sampling event. The 2008 investigation confirmed that the bedrock zone does not appear to be contaminated

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with chlorinated solvents. An additional investigative boring and deep monitoring well was installed in 2012 at 267 Franklin Street to further assess deep groundwater impacts. Deep groundwater sampling confirmed dissolved chlorinated VOC contamination at levels up to 0.069 ppm total VOCs at this new deep well. A thin fill layer (3-5 feet) at the 432 Pearl Street parcel contains several SVOCs [benzo(a)anthracene, benzo(b)flourene, benzo(a)pyrene and dibenzo(a,h) anthracene) at levels slightly above commercial SCOs. There were no exceedances for metals above commercial levels at both parcels. Because of the extent of the dissolved shallow plume, vapor intrusion (VI) from the chlorinated solvents was a concern with structures on around the BCP site. Prior to the BCP volunteer s acquisition of the apartment building at 267 Franklin Street, a soil VI evaluation was completed by the Department in 2008. The VI evaluation revealed PCE impacts to indoor air quality inside the apartment building. The Department subsequently installed a sub-slab depressurization system (SSDS) inside the apartment building to address VI and reduce indoor air concentrations of PCE. Vapor intrusion was confirmed in another off-site building in 2011 and an SSDS was installed in 2012. Additional investigations were required to assess off-site impacts, health and safety concerns, the presence of DNAPL, and bedrock aquifer contamination. The DEC completed an off-site groundwater evaluation in 2009 which revealed that an elongated PCE plume has migrated in a southwesterly direction across Franklin Street. PCE contamination was revealed primarily in the shallow groundwater zone. Deep groundwater was impacted at one of the off-site monitoring points along Franklin Street. Additional investigation of impacts to downgradient properties and structures was implemented in 2011 and 2012 and revealed shallow groundwater zone contamination, over 3 ppm for PCE, at another downgradient property along Franklin Street. Post Remedial Action: A DEC approved in-situ remedial action measure was implemented in April 2014 and consisted of the following: ENHANCED SHALLOW GROUNDWATER BIOREMEDIATION In-situ shallow groundwater treatment was implemented in 2014 for site C915208 residual source only. Enhanced natural biodegradation of chlorinated VOCs (PCE and its breakdown products)was implemented in an area with the highest residual VOC contaminated shallow groundwater in the immediate vicinity of MW-5 (residual source area at Site C915208) to propagate the biological breakdown of contaminants through anaerobic reductive dechlorination. A mix of nutrients, buffers and chemical agents were injected into the subsurface to a target depth between 10 and 20 feet below ground surface to promote dechlorinating microbe growth. The microbial reductive dechlorination process was also enhanced with the injection of micron scale zero valent iron (ZVI) for physio-chemical abiotic reduction of residual chlorinated VOCs. No specific remediation measures to address residual chlorinated VOC contamination in the deep groundwater zone was proposed or implemented. PLUME REDUCTION Plume reduction will be accomplished by treating the groundwater for chlorinated VOCs via in-situ treatment methods such that the groundwater leaving the site has been effectively treated to water quality criteria. At this site, the shallow chlorinated VOC contaminant plume has migrated onto an adjoining property at 275 Franklin Street which is part of the adjoining BCP project site C915208 (275 Franklin Street Site). In 2014, a contaminant plume reduction measure was accomplished by injecting in-situ treatment materials along a series of injection points 10 to 20 feet in depth

432 PEARL STREET (Continued) **S110748431**

along accessible western and southern perimeter areas of the site forming a vertical permeable reactive treatment zone. The in-situ treatment materials utilized the same materials used in the source area treatment system to promote enhanced natural anaerobic reductive dechlorination and physio-chemical reduction of residual chlorinated VOC contamination in the shallow groundwater zone. No specific remediation measures were implemented to address off-site migration of residual chlorinated VOC contamination in the deep groundwater zone.

Health Problem: Direct contact with contaminants in the soil is unlikely because the site is covered with a building and pavement. People are not coming into contact with the contaminated groundwater because the area is served by a public water supply that is not affected by this contamination. Volatile organic compounds in the groundwater may move into the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. A sub-slab depressurization system (systems that ventilate/remove the air beneath the building) was installed in the on-site building to prevent the indoor air quality from being affected by the contamination in soil vapor beneath the buildings. The potential exists for the inhalation of site contaminants due to soil vapor intrusion for any future on-site development and occupancy.
Not reported
Dump: False
Structure: False
Lagoon: False
Landfill: False
Pond: False
Disp Start: Not reported
Disp Term: Not reported
Lat/Long: Not reported
Dell: Not reported
Record Add: 10/1/2012 12:15:00 PM
Record Upd: 12/16/2014 10:09:00 AM
Updated By: ewmelnyk
Own Op: Document Repository
Sub Type: NNN
Owner Name: Michael Mahaney
Owner Company: Buffalo and Erie Co. Public Library
Owner Address: 1 LaFayette Square
Owner Addr2: Not reported
Owner City,St,Zip: Buffalo, NY 14203
Owner Country: United States of America
Own Op: Applicant/Requestor
Sub Type: P03
Owner Name: Mark D. Croce
Owner Company: Buffalo Development Corporation
Owner Address: 257 Franklin Street
Owner Addr2: Not reported
Owner City,St,Zip: Buffalo, NY 14202
Owner Country: United States of America
HW Code: C915237
Waste Type: TETRACHLOROETHYLENE (PCE)
Waste Quantity: UNKNOWN
Waste Code: Not reported

432 PEARL STREET (Continued) **S110748431**

HW Code: C915237
Waste Type: tetrachloroethene (PCE)
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915237
Waste Type: TRICHLOROETHENE (TCE)
Waste Quantity: UNKNOWN
Waste Code: Not reported
Crossref ID: C915208
Cross Ref Type Code: 22
Cross Ref Type: BCP Site ID
Record Added Date: 7/8/2010 2:40:00 PM
Record Updated: 7/8/2010 2:40:00 PM
Updated By: MOBARRIE

Site Code: 437176
Control Name: IC/EC Plan
HW Code: C915237
Control Code: 34
Control Type: INST
Dt record added: 07/17/2013
Dt rec updated: 04/11/2017
Updated By: EWMELNYK
Site Code: 437176
Site Description: Location: The BCP site consists of two non-contiguous parcels in the City of Buffalo, Erie County. The BCP site contains a 0.45 acre parcel located at 432 Pearl Street and a 0.25 acre parcel located at 267 Franklin Street. The two parcels are adjacent to each other, but are separated by Asbury Alley owned by the City of Buffalo. The site is situated in an urban commercial district. The site is adjacent to BCP site C915208 also owned by the 432 Pearl Street BCP volunteer. The 432 Pearl Street BCP site and the adjacent BCP site are part of a common proposed redevelopment project. Site Features: The 432 Pearl Street parcel is a paved commercial parking lot. The 267 Franklin Street parcel site contains an occupied apartment building with a paved parking lot for the tenants. Current Zoning and Land Use: Both non-contiguous parcels that constitute the site are situated in the Downtown Opportunity (DO) zoning district which currently contains a mix of uses including apartment residences, restaurants, retail, entertainment, office and parking. Permitted use in the DO zoning district includes residential, office, (limited) retail, restaurant, hotel and entertainment. The surrounding parcels are currently used for a combination of commercial uses including surface parking, restaurant and entertainment. Past Use of the Site: Information concerning the use of both parcels dates back to the late 1800s when the area was predominantly closely spaced urban residential, interspersed with commercial businesses and establishments. 432 Pearl Street: In the late 1800s, the northern half of the parcel consisted of four separate lots with residential buildings facing Pearl Street and carriage sheds facing Asbury Alley. By the 1940s, one of the residences was demolished and converted to a surface parking lot. The balance of these residences were demolished in subsequent years and also converted to surface parking lots. No known date concerning the demolition of the residences and conversion to parking lots is available or provided. Continuing southward along this parcel, in the late 1800s, two lots also contained residences and two lots contained apartment/rooming houses. By the mid 1920, the two residences were

432 PEARL STREET (Continued) **S110748431**

replaced by a retail commercial building (record use indicates that a heating equipment company occupied the building). By the 1940s, the commercial building and apartment/rooming houses were demolished and converted to surface parking. 267 Franklin Street: In the late 1800s through 1926, land use consisted of two separate apartment buildings on this parcel. The northern half of the 267 Pearl Street parcel contained a residential apartment building facing Franklin Street. The apartment building appears to have been demolished between 1925 and 1946. No other land use for the former apartment building lot other than as a parking lot appears to have occurred after 1946. The southern half of the parcel contains the current tenement style apartment building which remains actively used as an occupied apartment building. Tenant parking is provided on the northern half of the site that contained the former apartment building. According to the BCP application, future development plans for the site, in conjunction with BCP site C915208, consists of a hotel with conference and parking facilities. As of 2015, development plans have changed and the site has been marketed for lease development. Site Geology and Hydrogeology: Overburden: The site is located within the Erie-Ontario lake plain physiographic province, which is typified by little topographic relief and gentle slope toward Lake Erie, except in the immediate vicinity of major drainage ways. The surficial geology of the Lake Erie plain generally consists of a thin glacial till layer, glaciolacustrine (lake-laid laminated silts and clays) deposits, alluvium, and soils derived by these deposits. Glacial till deposits were not encountered at the site except for a thin layer (1 to 2 feet thick) above limestone bedrock. The site geology consists of a lake-laid sandy ridge deposit about 40 to 45 feet thick with several interbedded silty clay lenses. The 432 Pearl Street parcel is covered by a thin soil/fill layer approximately 2 to 5 feet thick. The fill is characteristic of urban fill common in the City of Buffalo. Bedrock: The site is situated over the Onondaga formation limestone. Limestone bedrock was encountered about 52 feet below the surface. Hydrogeology: Unconfined shallow groundwater was encountered within the native soils at depths of approximately 10 to 12 feet below ground surface. Because of a silty clay soil lens within the sandy soil profile found at a depth of approximately 25 to 30 feet below ground surface, the site has a defined shallow and deep groundwater zone. The deep groundwater hydrostatic surface is nominally below the shallow groundwater surface. Site groundwater flow gradient (shallow and deep) appears to flow in a south/southwest direction. Regional groundwater appears to flow west/southwest toward Lake Erie and confluence of the Buffalo River.

Env Problem: Pre-Remedial Action: An RI commenced in this site and adjoining BCP site C915208 in late 2006. Results from this work revealed chlorinated solvents commonly used by dry cleaners (tetrachloroethene [PCE]) in soils up to 20,000 microgram/kilogram (ug/kg) PCE and shallow groundwater up to 19 parts per million (ppm) PCE at adjoining the BCP site C915208 parcel 275-277 Franklin St. The water quality standard for PCE is 0.005 ppm. The source area in shallow groundwater contamination appears to be centered around MW-5 on BCP site C915208. Investigation of the 267 Franklin Street parcel initially revealed chlorinated solvents in shallow groundwater at levels up to 18 ppm for PCE. The 2006 RI revealed an extensive shallow groundwater contaminant plume located on adjoining companion BCP site C915208 had migrated onto the 267 Franklin Street parcel, which is situated downgradient of BCP site C915208. The RI results suggest that the 432

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Pearl Street parcel is on the fringe of the shallow groundwater contaminant plume emanating from source area (BCP site C915208), and the shallow groundwater contaminant levels were just slightly above the groundwater quality standard (0.005 ppm) for the VOC contaminants of concern. The 267 Franklin Street parcel is immediately downgradient of the source area (BCP site C915208), and as a result, the PCE contaminant levels on site were significantly higher in the shallow groundwater zone (up to 18 ppm prior to the implementation of an IRM). The deep groundwater zone was impacted, but to a lesser degree. Investigation of off-site areas by DEC on adjoining downgradient properties revealed the extensive chlorinated VOC plume extended to the south/southwest. A supplemental site investigation was conducted in 2008 to develop an IRM for BCP site C915208. An IRM to treat contaminated groundwater via in-situ methods was implemented in 2008 at the adjoining companion BCP site C915208. Because of a silty clay soil lens midway between the surface and bedrock, two distinct groundwater zones exist at the site. The silty clay soil lens has limited some downward migration of the dissolved contamination. However, the 2008 supplemental investigation of companion BCP site C915208 confirmed that deeper groundwater zone is contaminated with the chlorinated solvents, with one deep monitoring well at adjoining companion BCP site C915208 initially containing 9.4 ppm PCE. PCE levels at this monitoring point have dropped to 0.091 ppm PCE during the 2012 sampling event. The 2008 investigation confirmed that the bedrock zone does not appear to be contaminated with chlorinated solvents. An additional investigative boring and deep monitoring well was installed in 2012 at 267 Franklin Street to further assess deep groundwater impacts. Deep groundwater sampling confirmed dissolved chlorinated VOC contamination at levels up to 0.069 ppm total VOCs at this new deep well. A thin fill layer (3-5 feet) at the 432 Pearl Street parcel contains several SVOCs [benzo(a)anthracene, benzo(b)flourene, benzo(a)pyrene and dibenzo(a,h) anthracene) at levels slightly above commercial SCOs. There were no exceedances for metals above commercial levels at both parcels. Because of the extent of the dissolved shallow plume, vapor intrusion (VI) from the chlorinated solvents was a concern with structures on around the BCP site. Prior to the BCP volunteer s acquisition of the apartment building at 267 Franklin Street, a soil VI evaluation was completed by the Department in 2008. The VI evaluation revealed PCE impacts to indoor air quality inside the apartment building. The Department subsequently installed a sub-slab depressurization system (SSDS) inside the apartment building to address VI and reduce indoor air concentrations of PCE. Vapor intrusion was confirmed in another off-site building in 2011 and an SSDS was installed in 2012. Additional investigations were required to assess off-site impacts, health and safety concerns, the presence of DNAPL, and bedrock aquifer contamination. The DEC completed an off-site groundwater evaluation in 2009 which revealed that an elongated PCE plume has migrated in a southwesterly direction across Franklin Street. PCE contamination was revealed primarily in the shallow groundwater zone. Deep groundwater was impacted at one of the off-site monitoring points along Franklin Street. Additional investigation of impacts to downgradient properties and structures was implemented in 2011 and 2012 and revealed shallow groundwater zone contamination, over 3 ppm for PCE, at another downgradient property along Franklin Street. Post Remedial Action: A DEC approved in-situ remedial action measure was implemented in April 2014 and

432 PEARL STREET (Continued) **S110748431**

consisted of the following: ENHANCED SHALLOW GROUNDWATER BIOREMEDIATION In-situ shallow groundwater treatment was implemented in 2014 for site C915208 residual source only. Enhanced natural biodegradation of chlorinated VOCs (PCE and its breakdown products)was implemented in an area with the highest residual VOC contaminated shallow groundwater in the immediate vicinity of MW-5 (residual source area at Site C915208) to propagate the biological breakdown of contaminants through anaerobic reductive dechlorination. A mix of nutrients, buffers and chemical agents were injected into the subsurface to a target depth between 10 and 20 feet below ground surface to promote dechlorinating microbe growth. The microbial reductive dechlorination process was also enhanced with the injection of micron scale zero valent iron (ZVI) for physio-chemical abiotic reduction of residual chlorinated VOCs. No specific remediation measures to address residual chlorinated VOC contamination in the deep groundwater zone was proposed or implemented. PLUME REDUCTION Plume reduction will be accomplished by treating the groundwater for chlorinated VOCs via in-situ treatment methods such that the groundwater leaving the site has been effectively treated to water quality criteria. At this site, the shallow chlorinated VOC contaminant plume has migrated onto an adjoining property at 275 Franklin Street which is part of the adjoining BCP project site C915208 (275 Franklin Street Site). In 2014, a contaminant plume reduction measure was accomplished by injecting in-situ treatment materials along a series of injection points 10 to 20 feet in depth along accessible western and southern perimeter areas of the site forming a vertical permeable reactive treatment zone. The in-situ treatment materials utilized the same materials used in the source area treatment system to promote enhanced natural anaerobic reductive dechlorination and physio-chemical reduction of residual chlorinated VOC contamination in the shallow groundwater zone. No specific remediation measures were implemented to address off-site migration of residual chlorinated VOC contamination in the deep groundwater zone.

Health Problem: Direct contact with contaminants in the soil is unlikely because the site is covered with a building and pavement. People are not coming into contact with the contaminated groundwater because the area is served by a public water supply that is not affected by this contamination. Volatile organic compounds in the groundwater may move into the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. A sub-slab depressurization system (systems that ventilate/remove the air beneath the building) was installed in the on-site building to prevent the indoor air quality from being affected by the contamination in soil vapor beneath the buildings. The potential exists for the inhalation of site contaminants due to soil vapor intrusion for any future on-site development and occupancy.
Not reported
Dump: False
Structure: False
Lagoon: False
Landfill: False
Pond: False
Disp Start: Not reported
Disp Term: Not reported

432 PEARL STREET (Continued) **S110748431**

Lat/Long: Not reported
Dell: Not reported
Record Add: 10/1/2012 12:15:00 PM
Record Upd: 12/16/2014 10:09:00 AM
Updated By: ewmelnyk
Own Op: Document Repository
Sub Type: NNN
Owner Name: Michael Mahaney
Owner Company: Buffalo and Erie Co. Public Library
Owner Address: 1 LaFayette Square
Owner Addr2: Not reported
Owner City,St,Zip: Buffalo, NY 14203
Owner Country: United States of America
Own Op: Applicant/Requestor
Sub Type: P03
Owner Name: Mark D. Croce
Owner Company: Buffalo Development Corporation
Owner Address: 257 Franklin Street
Owner Addr2: Not reported
Owner City,St,Zip: Buffalo, NY 14202
Owner Country: United States of America
HW Code: C915237
Waste Type: TETRACHLOROETHYLENE (PCE)
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915237
Waste Type: tetrachloroethene (PCE)
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915237
Waste Type: TRICHLOROETHENE (TCE)
Waste Quantity: UNKNOWN
Waste Code: Not reported
Crossref ID: C915208
Cross Ref Type Code: 22
Cross Ref Type: BCP Site ID
Record Added Date: 7/8/2010 2:40:00 PM
Record Updated: 7/8/2010 2:40:00 PM
Updated By: MOBARRIE

Site Code: 437176
Control Name: Site Management Plan
HW Code: C915237
Control Code: 32
Control Type: INST
Dt record added: 07/17/2013
Dt rec updated: 04/11/2017
Updated By: EWMELNYK
Site Code: 437176
Site Description: Location: The BCP site consists of two non-contiguous parcels in the City of Buffalo, Erie County. The BCP site contains a 0.45 acre parcel located at 432 Pearl Street and a 0.25 acre parcel located at 267 Franklin Street. The two parcels are adjacent to each other, but are separated by Asbury Alley owned by the City of Buffalo. The site is situated in an urban commercial district. The site is adjacent to BCP site C915208 also owned by the 432 Pearl Street BCP volunteer. The 432 Pearl Street BCP site and the adjacent BCP site are part of a

432 PEARL STREET (Continued) **S110748431**

common proposed redevelopment project. Site Features: The 432 Pearl Street parcel is a paved commercial parking lot. The 267 Franklin Street parcel site contains an occupied apartment building with a paved parking lot for the tenants. Current Zoning and Land Use: Both non-contiguous parcels that constitute the site are situated in the Downtown Opportunity (DO) zoning district which currently contains a mix of uses including apartment residences, restaurants, retail, entertainment, office and parking. Permitted use in the DO zoning district includes residential, office, (limited) retail, restaurant, hotel and entertainment. The surrounding parcels are currently used for a combination of commercial uses including surface parking, restaurant and entertainment. Past Use of the Site: Information concerning the use of both parcels dates back to the late 1800s when the area was predominantly closely spaced urban residential, interspersed with commercial businesses and establishments. 432 Pearl Street: In the late 1800s, the northern half of the parcel consisted of four separate lots with residential buildings facing Pearl Street and carriage sheds facing Asbury Alley. By the 1940s, one of the residences was demolished and converted to a surface parking lot. The balance of these residences were demolished in subsequent years and also converted to surface parking lots. No known date concerning the demolition of the residences and conversion to parking lots is available or provided. Continuing southward along this parcel, in the late 1800s, two lots also contained residences and two lots contained apartment/rooming houses. By the mid 1920, the two residences were replaced by a retail commercial building (record use indicates that a heating equipment company occupied the building). By the 1940s, the commercial building and apartment/rooming houses were demolished and converted to surface parking. 267 Franklin Street: In the late 1800s through 1926, land use consisted of two separate apartment buildings on this parcel. The northern half of the 267 Pearl Street parcel contained a residential apartment building facing Franklin Street. The apartment building appears to have been demolished between 1925 and 1946. No other land use for the former apartment building lot other than as a parking lot appears to have occurred after 1946. The southern half of the parcel contains the current tenement style apartment building which remains actively used as an occupied apartment building. Tenant parking is provided on the northern half of the site that contained the former apartment building. According to the BCP application, future development plans for the site, in conjunction with BCP site C915208, consists of a hotel with conference and parking facilities. As of 2015, development plans have changed and the site has been marketed for lease development. Site Geology and Hydrogeology: Overburden: The site is located within the Erie-Ontario lake plain physiographic province, which is typified by little topographic relief and gentle slope toward Lake Erie, except in the immediate vicinity of major drainage ways. The surficial geology of the Lake Erie plain generally consists of a thin glacial till layer, glaciolacustrine (lake-laid laminated silts and clays) deposits, alluvium, and soils derived by these deposits. Glacial till deposits were not encountered at the site except for a thin layer (1 to 2 feet thick) above limestone bedrock. The site geology consists of a lake-laid sandy ridge deposit about 40 to 45 feet thick with several interbedded silty clay lenses. The 432 Pearl Street parcel is covered by a thin soil/fill layer approximately 2 to 5 feet thick. The fill is characteristic of urban fill common in the City of Buffalo. Bedrock: The site is situated over the Onondaga formation

432 PEARL STREET (Continued) **S110748431**

limestone. Limestone bedrock was encountered about 52 feet below the surface. Hydrogeology: Unconfined shallow groundwater was encountered within the native soils at depths of approximately 10 to 12 feet below ground surface. Because of a silty clay soil lens within the sandy soil profile found at a depth of approximately 25 to 30 feet below ground surface, the site has a defined shallow and deep groundwater zone. The deep groundwater hydrostatic surface is nominally below the shallow groundwater surface. Site groundwater flow gradient (shallow and deep) appears to flow in a south/southwest direction. Regional groundwater appears to flow west/southwest toward Lake Erie and confluence of the Buffalo River.

Env Problem: Pre-Remedial Action: An RI commenced in this site and adjoining BCP site C915208 in late 2006. Results from this work revealed chlorinated solvents commonly used by dry cleaners (tetrachloroethene [PCE]) in soils up to 20,000 microgram/kilogram (ug/kg) PCE and shallow groundwater up to 19 parts per million (ppm) PCE at adjoining the BCP site C915208 parcel 275-277 Franklin St. The water quality standard for PCE is 0.005 ppm. The source area in shallow groundwater contamination appears to be centered around MW-5 on BCP site C915208. Investigation of the 267 Franklin Street parcel initially revealed chlorinated solvents in shallow groundwater at levels up to 18 ppm for PCE. The 2006 RI revealed an extensive shallow groundwater contaminant plume located on adjoining companion BCP site C915208 had migrated onto the 267 Franklin Street parcel, which is situated downgradient of BCP site C915208. The RI results suggest that the 432 Pearl Street parcel is on the fringe of the shallow groundwater contaminant plume emanating from source area (BCP site C915208), and the shallow groundwater contaminant levels were just slightly above the groundwater quality standard (0.005 ppm) for the VOC contaminants of concern. The 267 Franklin Street parcel is immediately downgradient of the source area (BCP site C915208), and as a result, the PCE contaminant levels on site were significantly higher in the shallow groundwater zone (up to 18 ppm prior to the implementation of an IRM). The deep groundwater zone was impacted, but to a lesser degree. Investigation of off-site areas by DEC on adjoining downgradient properties revealed the extensive chlorinated VOC plume extended to the south/southwest. A supplemental site investigation was conducted in 2008 to develop an IRM for BCP site C915208. An IRM to treat contaminated groundwater via in-situ methods was implemented in 2008 at the adjoining companion BCP site C915208. Because of a silty clay soil lens midway between the surface and bedrock, two distinct groundwater zones exist at the site. The silty clay soil lens has limited some downward migration of the dissolved contamination. However, the 2008 supplemental investigation of companion BCP site C915208 confirmed that deeper groundwater zone is contaminated with the chlorinated solvents, with one deep monitoring well at adjoining companion BCP site C915208 initially containing 9.4 ppm PCE. PCE levels at this monitoring point have dropped to 0.091 ppm PCE during the 2012 sampling event. The 2008 investigation confirmed that the bedrock zone does not appear to be contaminated with chlorinated solvents. An additional investigative boring and deep monitoring well was installed in 2012 at 267 Franklin Street to further assess deep groundwater impacts. Deep groundwater sampling confirmed dissolved chlorinated VOC contamination at levels up to 0.069 ppm total VOCs at this new deep well. A thin fill layer (3-5 feet) at the 432 Pearl Street parcel contains several SVOCs [benzo(a)anthracene, benzo(b)flourene, benzo(a)pyrene and

432 PEARL STREET (Continued) **S110748431**

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432 PEARL STREET (Continued) **S110748431**

of residual chlorinated VOC contamination in the deep groundwater zone.

Health Problem: Direct contact with contaminants in the soil is unlikely because the site is covered with a building and pavement. People are not coming into contact with the contaminated groundwater because the area is served by a public water supply that is not affected by this contamination. Volatile organic compounds in the groundwater may move into the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. A sub-slab depressurization system (systems that ventilate/remove the air beneath the building) was installed in the on-site building to prevent the indoor air quality from being affected by the contamination in soil vapor beneath the buildings. The potential exists for the inhalation of site contaminants due to soil vapor intrusion for any future on-site development and occupancy.

Not reported
Dump: False
Structure: False
Lagoon: False
Landfill: False
Pond: False
Disp Start: Not reported
Disp Term: Not reported
Lat/Long: Not reported
Dell: Not reported
Record Add: 10/1/2012 12:15:00 PM
Record Upd: 12/16/2014 10:09:00 AM
Updated By: ewmelnyk
Own Op: Document Repository
Sub Type: NNN
Owner Name: Michael Mahaney
Owner Company: Buffalo and Erie Co. Public Library
Owner Address: 1 LaFayette Square
Owner Addr2: Not reported
Owner City,St,Zip: Buffalo, NY 14203
Owner Country: United States of America
Own Op: Applicant/Requestor
Sub Type: P03
Owner Name: Mark D. Croce
Owner Company: Buffalo Development Corporation
Owner Address: 257 Franklin Street
Owner Addr2: Not reported
Owner City,St,Zip: Buffalo, NY 14202
Owner Country: United States of America
HW Code: C915237
Waste Type: TETRACHLOROETHYLENE (PCE)
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915237
Waste Type: tetrachloroethene (PCE)
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915237
Waste Type: TRICHLOROETHENE (TCE)
Waste Quantity: UNKNOWN

432 PEARL STREET (Continued) **S110748431**

Waste Code: Not reported
Crossref ID: C915208
Cross Ref Type Code: 22
Cross Ref Type: BCP Site ID
Record Added Date: 7/8/2010 2:40:00 PM
Record Updated: 7/8/2010 2:40:00 PM
Updated By: MOBARRIE

Site Code: 437176
Control Name: Soil Management Plan
HW Code: C915237
Control Code: 14
Control Type: INST
Dt record added: 07/17/2013
Dt rec updated: 04/11/2017
Updated By: EWMELNYK
Site Code: 437176
Site Description: Location: The BCP site consists of two non-contiguous parcels in the City of Buffalo, Erie County. The BCP site contains a 0.45 acre parcel located at 432 Pearl Street and a 0.25 acre parcel located at 267 Franklin Street. The two parcels are adjacent to each other, but are separated by Asbury Alley owned by the City of Buffalo. The site is situated in an urban commercial district. The site is adjacent to BCP site C915208 also owned by the 432 Pearl Street BCP volunteer. The 432 Pearl Street BCP site and the adjacent BCP site are part of a common proposed redevelopment project. Site Features: The 432 Pearl Street parcel is a paved commercial parking lot. The 267 Franklin Street parcel site contains an occupied apartment building with a paved parking lot for the tenants. Current Zoning and Land Use: Both non-contiguous parcels that constitute the site are situated in the Downtown Opportunity (DO) zoning district which currently contains a mix of uses including apartment residences, restaurants, retail, entertainment, office and parking. Permitted use in the DO zoning district includes residential, office, (limited) retail, restaurant, hotel and entertainment. The surrounding parcels are currently used for a combination of commercial uses including surface parking, restaurant and entertainment. Past Use of the Site: Information concerning the use of both parcels dates back to the late 1800s when the area was predominantly closely spaced urban residential, interspersed with commercial businesses and establishments. 432 Pearl Street: In the late 1800s, the northern half of the parcel consisted of four separate lots with residential buildings facing Pearl Street and carriage sheds facing Asbury Alley. By the 1940s, one of the residences was demolished and converted to a surface parking lot. The balance of these residences were demolished in subsequent years and also converted to surface parking lots. No known date concerning the demolition of the residences and conversion to parking lots is available or provided. Continuing southward along this parcel, in the late 1800s, two lots also contained residences and two lots contained apartment/rooming houses. By the mid 1920, the two residences were replaced by a retail commercial building (record use indicates that a heating equipment company occupied the building). By the 1940s, the commercial building and apartment/rooming houses were demolished and converted to surface parking. 267 Franklin Street: In the late 1800s through 1926, land use consisted of two separate apartment buildings on this parcel. The northern half of the 267 Pearl Street parcel contained a residential apartment building facing Franklin Street.

432 PEARL STREET (Continued) **S110748431**

The apartment building appears to have been demolished between 1925 and 1946. No other land use for the former apartment building lot other than as a parking lot appears to have occurred after 1946. The southern half of the parcel contains the current tenement style apartment building which remains actively used as an occupied apartment building. Tenant parking is provided on the northern half of the site that contained the former apartment building. According to the BCP application, future development plans for the site, in conjunction with BCP site C915208, consists of a hotel with conference and parking facilities. As of 2015, development plans have changed and the site has been marketed for lease development. Site Geology and Hydrogeology: Overburden: The site is located within the Erie-Ontario lake plain physiographic province, which is typified by little topographic relief and gentle slope toward Lake Erie, except in the immediate vicinity of major drainage ways. The surficial geology of the Lake Erie plain generally consists of a thin glacial till layer, glaciolacustrine (lake-laid laminated silts and clays) deposits, alluvium, and soils derived by these deposits. Glacial till deposits were not encountered at the site except for a thin layer (1 to 2 feet thick) above limestone bedrock. The site geology consists of a lake-laid sandy ridge deposit about 40 to 45 feet thick with several interbedded silty clay lenses. The 432 Pearl Street parcel is covered by a thin soil/fill layer approximately 2 to 5 feet thick. The fill is characteristic of urban fill common in the City of Buffalo. Bedrock: The site is situated over the Onondaga formation limestone. Limestone bedrock was encountered about 52 feet below the surface. Hydrogeology: Unconfined shallow groundwater was encountered within the native soils at depths of approximately 10 to 12 feet below ground surface. Because of a silty clay soil lens within the sandy soil profile found at a depth of approximately 25 to 30 feet below ground surface, the site has a defined shallow and deep groundwater zone. The deep groundwater hydrostatic surface is nominally below the shallow groundwater surface. Site groundwater flow gradient (shallow and deep) appears to flow in a south/southwest direction. Regional groundwater appears to flow west/southwest toward Lake Erie and confluence of the Buffalo River.

Env Problem: Pre-Remedial Action: An RI commenced in this site and adjoining BCP site C915208 in late 2006. Results from this work revealed chlorinated solvents commonly used by dry cleaners (tetrachloroethene [PCE]) in soils up to 20,000 microgram/kilogram (ug/kg) PCE and shallow groundwater up to 19 parts per million (ppm) PCE at adjoining the BCP site C915208 parcel 275-277 Franklin St. The water quality standard for PCE is 0.005 ppm. The source area in shallow groundwater contamination appears to be centered around MW-5 on BCP site C915208. Investigation of the 267 Franklin Street parcel initially revealed chlorinated solvents in shallow groundwater at levels up to 18 ppm for PCE. The 2006 RI revealed an extensive shallow groundwater contaminant plume located on adjoining companion BCP site C915208 had migrated onto the 267 Franklin Street parcel, which is situated downgradient of BCP site C915208. The RI results suggest that the 432 Pearl Street parcel is on the fringe of the shallow groundwater contaminant plume emanating from source area (BCP site C915208), and the shallow groundwater contaminant levels were just slightly above the groundwater quality standard (0.005 ppm) for the VOC contaminants of concern. The 267 Franklin Street parcel is immediately downgradient of the source area (BCP site C915208), and as a result, the PCE contaminant levels on site were significantly higher in the

432 PEARL STREET (Continued) **S110748431**

shallow groundwater zone (up to 18 ppm prior to the implementation of an IRM). The deep groundwater zone was impacted, but to a lesser degree. Investigation of off-site areas by DEC on adjoining downgradient properties revealed the extensive chlorinated VOC plume extended to the south/southwest. A supplemental site investigation was conducted in 2008 to develop an IRM for BCP site C915208. An IRM to treat contaminated groundwater via in-situ methods was implemented in 2008 at the adjoining companion BCP site C915208. Because of a silty clay soil lens midway between the surface and bedrock, two distinct groundwater zones exist at the site. The silty clay soil lens has limited some downward migration of the dissolved contamination. However, the 2008 supplemental investigation of companion BCP site C915208 confirmed that deeper groundwater zone is contaminated with the chlorinated solvents, with one deep monitoring well at adjoining companion BCP site C915208 initially containing 9.4 ppm PCE. PCE levels at this monitoring point have dropped to 0.091 ppm PCE during the 2012 sampling event. The 2008 investigation confirmed that the bedrock zone does not appear to be contaminated with chlorinated solvents. An additional investigative boring and deep monitoring well was installed in 2012 at 267 Franklin Street to further assess deep groundwater impacts. Deep groundwater sampling confirmed dissolved chlorinated VOC contamination at levels up to 0.069 ppm total VOCs at this new deep well. A thin fill layer (3-5 feet) at the 432 Pearl Street parcel contains several SVOCs [benzo(a)anthracene, benzo(b)flourene, benzo(a)pyrene and dibenzo(a,h) anthracene) at levels slightly above commercial SCOs. There were no exceedances for metals above commercial levels at both parcels. Because of the extent of the dissolved shallow plume, vapor intrusion (VI) from the chlorinated solvents was a concern with structures on around the BCP site. Prior to the BCP volunteer s acquisition of the apartment building at 267 Franklin Street, a soil VI evaluation was completed by the Department in 2008. The VI evaluation revealed PCE impacts to indoor air quality inside the apartment building. The Department subsequently installed a sub-slab depressurization system (SSDS) inside the apartment building to address VI and reduce indoor air concentrations of PCE. Vapor intrusion was confirmed in another off-site building in 2011 and an SSDS was installed in 2012. Additional investigations were required to assess off-site impacts, health and safety concerns, the presence of DNAPL, and bedrock aquifer contamination. The DEC completed an off-site groundwater evaluation in 2009 which revealed that an elongated PCE plume has migrated in a southwesterly direction across Franklin Street. PCE contamination was revealed primarily in the shallow groundwater zone. Deep groundwater was impacted at one of the off-site monitoring points along Franklin Street. Additional investigation of impacts to downgradient properties and structures was implemented in 2011 and 2012 and revealed shallow groundwater zone contamination, over 3 ppm for PCE, at another downgradient property along Franklin Street. Post Remedial Action: A DEC approved in-situ remedial action measure was implemented in April 2014 and consisted of the following: ENHANCED SHALLOW GROUNDWATER BIOREMEDIATION In-situ shallow groundwater treatment was implemented in 2014 for site C915208 residual source only. Enhanced natural biodegradation of chlorinated VOCs (PCE and its breakdown products)was implemented in an area with the highest residual VOC contaminated shallow groundwater in the immediate vicinity of MW-5 (residual source area at Site C915208) to propagate the biological

432 PEARL STREET (Continued) **S110748431**

breakdown of contaminants through anaerobic reductive dechlorination. A mix of nutrients, buffers and chemical agents were injected into the subsurface to a target depth between 10 and 20 feet below ground surface to promote dechlorinating microbe growth. The microbial reductive dechlorination process was also enhanced with the injection of micron scale zero valent iron (ZVI) for physio-chemical abiotic reduction of residual chlorinated VOCs. No specific remediation measures to address residual chlorinated VOC contamination in the deep groundwater zone was proposed or implemented. PLUME REDUCTION Plume reduction will be accomplished by treating the groundwater for chlorinated VOCs via in-situ treatment methods such that the groundwater leaving the site has been effectively treated to water quality criteria. At this site, the shallow chlorinated VOC contaminant plume has migrated onto an adjoining property at 275 Franklin Street which is part of the adjoining BCP project site C915208 (275 Franklin Street Site). In 2014, a contaminant plume reduction measure was accomplished by injecting in-situ treatment materials along a series of injection points 10 to 20 feet in depth along accessible western and southern perimeter areas of the site forming a vertical permeable reactive treatment zone. The in-situ treatment materials utilized the same materials used in the source area treatment system to promote enhanced natural anaerobic reductive dechlorination and physio-chemical reduction of residual chlorinated VOC contamination in the shallow groundwater zone. No specific remediation measures were implemented to address off-site migration of residual chlorinated VOC contamination in the deep groundwater zone.

Health Problem: Direct contact with contaminants in the soil is unlikely because the site is covered with a building and pavement. People are not coming into contact with the contaminated groundwater because the area is served by a public water supply that is not affected by this contamination. Volatile organic compounds in the groundwater may move into the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. A sub-slab depressurization system (systems that ventilate/remove the air beneath the building) was installed in the on-site building to prevent the indoor air quality from being affected by the contamination in soil vapor beneath the buildings. The potential exists for the inhalation of site contaminants due to soil vapor intrusion for any future on-site development and occupancy.
Not reported
Dump: False
Structure: False
Lagoon: False
Landfill: False
Pond: False
Disp Start: Not reported
Disp Term: Not reported
Lat/Long: Not reported
Dell: Not reported
Record Add: 10/1/2012 12:15:00 PM
Record Upd: 12/16/2014 10:09:00 AM
Updated By: ewmelnyk
Own Op: Document Repository
Sub Type: NNN

432 PEARL STREET (Continued) **S110748431**

Owner Name: Michael Mahaney
Owner Company: Buffalo and Erie Co. Public Library
Owner Address: 1 LaFayette Square
Owner Addr2: Not reported
Owner City,St,Zip: Buffalo, NY 14203
Owner Country: United States of America
Own Op: Applicant/Requestor
Sub Type: P03
Owner Name: Mark D. Croce
Owner Company: Buffalo Development Corporation
Owner Address: 257 Franklin Street
Owner Addr2: Not reported
Owner City,St,Zip: Buffalo, NY 14202
Owner Country: United States of America
HW Code: C915237
Waste Type: TETRACHLOROETHYLENE (PCE)
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915237
Waste Type: tetrachloroethene (PCE)
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915237
Waste Type: TRICHLOROETHENE (TCE)
Waste Quantity: UNKNOWN
Waste Code: Not reported
Crossref ID: C915208
Cross Ref Type Code: 22
Cross Ref Type: BCP Site ID
Record Added Date: 7/8/2010 2:40:00 PM
Record Updated: 7/8/2010 2:40:00 PM
Updated By: MOBARRIE

Site Code: 437176
Control Name: Building Use Restriction
HW Code: C915237
Control Code: 26
Control Type: INST
Dt record added: 07/17/2013
Dt rec updated: 04/11/2017
Updated By: EWMELNYK
Site Code: 437176
Site Description: Location: The BCP site consists of two non-contiguous parcels in the City of Buffalo, Erie County. The BCP site contains a 0.45 acre parcel located at 432 Pearl Street and a 0.25 acre parcel located at 267 Franklin Street. The two parcels are adjacent to each other, but are separated by Asbury Alley owned by the City of Buffalo. The site is situated in an urban commercial district. The site is adjacent to BCP site C915208 also owned by the 432 Pearl Street BCP volunteer. The 432 Pearl Street BCP site and the adjacent BCP site are part of a common proposed redevelopment project. Site Features: The 432 Pearl Street parcel is a paved commercial parking lot. The 267 Franklin Street parcel site contains an occupied apartment building with a paved parking lot for the tenants. Current Zoning and Land Use: Both non-contiguous parcels that constitute the site are situated in the Downtown Opportunity (DO) zoning district which currently contains a mix of uses including apartment residences, restaurants, retail,

432 PEARL STREET (Continued) **S110748431**

entertainment, office and parking. Permitted use in the DO zoning district includes residential, office, (limited) retail, restaurant, hotel and entertainment. The surrounding parcels are currently used for a combination of commercial uses including surface parking, restaurant and entertainment. Past Use of the Site: Information concerning the use of both parcels dates back to the late 1800s when the area was predominantly closely spaced urban residential, interspersed with commercial businesses and establishments. 432 Pearl Street: In the late 1800s, the northern half of the parcel consisted of four separate lots with residential buildings facing Pearl Street and carriage sheds facing Asbury Alley. By the 1940s, one of the residences was demolished and converted to a surface parking lot. The balance of these residences were demolished in subsequent years and also converted to surface parking lots. No known date concerning the demolition of the residences and conversion to parking lots is available or provided. Continuing southward along this parcel, in the late 1800s, two lots also contained residences and two lots contained apartment/rooming houses. By the mid 1920, the two residences were replaced by a retail commercial building (record use indicates that a heating equipment company occupied the building). By the 1940s, the commercial building and apartment/rooming houses were demolished and converted to surface parking. 267 Franklin Street: In the late 1800s through 1926, land use consisted of two separate apartment buildings on this parcel. The northern half of the 267 Pearl Street parcel contained a residential apartment building facing Franklin Street. The apartment building appears to have been demolished between 1925 and 1946. No other land use for the former apartment building lot other than as a parking lot appears to have occurred after 1946. The southern half of the parcel contains the current tenement style apartment building which remains actively used as an occupied apartment building. Tenant parking is provided on the northern half of the site that contained the former apartment building. According to the BCP application, future development plans for the site, in conjunction with BCP site C915208, consists of a hotel with conference and parking facilities. As of 2015, development plans have changed and the site has been marketed for lease development. Site Geology and Hydrogeology: Overburden: The site is located within the Erie-Ontario lake plain physiographic province, which is typified by little topographic relief and gentle slope toward Lake Erie, except in the immediate vicinity of major drainage ways. The surficial geology of the Lake Erie plain generally consists of a thin glacial till layer, glaciolacustrine (lake-laid laminated silts and clays) deposits, alluvium, and soils derived by these deposits. Glacial till deposits were not encountered at the site except for a thin layer (1 to 2 feet thick) above limestone bedrock. The site geology consists of a lake-laid sandy ridge deposit about 40 to 45 feet thick with several interbedded silty clay lenses. The 432 Pearl Street parcel is covered by a thin soil/fill layer approximately 2 to 5 feet thick. The fill is characteristic of urban fill common in the City of Buffalo. Bedrock: The site is situated over the Onondaga formation limestone. Limestone bedrock was encountered about 52 feet below the surface. Hydrogeology: Unconfined shallow groundwater was encountered within the native soils at depths of approximately 10 to 12 feet below ground surface. Because of a silty clay soil lens within the sandy soil profile found at a depth of approximately 25 to 30 feet below ground surface, the site has a defined shallow and deep groundwater zone. The deep groundwater hydrostatic surface is

432 PEARL STREET (Continued) **S110748431**

nominally below the shallow groundwater surface. Site groundwater flow gradient (shallow and deep) appears to flow in a south/southwest direction. Regional groundwater appears to flow west/southwest toward Lake Erie and confluence of the Buffalo River.

Env Problem: Pre-Remedial Action: An RI commenced in this site and adjoining BCP site C915208 in late 2006. Results from this work revealed chlorinated solvents commonly used by dry cleaners (tetrachloroethene [PCE]) in soils up to 20,000 microgram/kilogram (ug/kg) PCE and shallow groundwater up to 19 parts per million (ppm) PCE at adjoining the BCP site C915208 parcel 275-277 Franklin St. The water quality standard for PCE is 0.005 ppm. The source area in shallow groundwater contamination appears to be centered around MW-5 on BCP site C915208. Investigation of the 267 Franklin Street parcel initially revealed chlorinated solvents in shallow groundwater at levels up to 18 ppm for PCE. The 2006 RI revealed an extensive shallow groundwater contaminant plume located on adjoining companion BCP site C915208 had migrated onto the 267 Franklin Street parcel, which is situated downgradient of BCP site C915208. The RI results suggest that the 432 Pearl Street parcel is on the fringe of the shallow groundwater contaminant plume emanating from source area (BCP site C915208), and the shallow groundwater contaminant levels were just slightly above the groundwater quality standard (0.005 ppm) for the VOC contaminants of concern. The 267 Franklin Street parcel is immediately downgradient of the source area (BCP site C915208), and as a result, the PCE contaminant levels on site were significantly higher in the shallow groundwater zone (up to 18 ppm prior to the implementation of an IRM). The deep groundwater zone was impacted, but to a lesser degree. Investigation of off-site areas by DEC on adjoining downgradient properties revealed the extensive chlorinated VOC plume extended to the south/southwest. A supplemental site investigation was conducted in 2008 to develop an IRM for BCP site C915208. An IRM to treat contaminated groundwater via in-situ methods was implemented in 2008 at the adjoining companion BCP site C915208. Because of a silty clay soil lens midway between the surface and bedrock, two distinct groundwater zones exist at the site. The silty clay soil lens has limited some downward migration of the dissolved contamination. However, the 2008 supplemental investigation of companion BCP site C915208 confirmed that deeper groundwater zone is contaminated with the chlorinated solvents, with one deep monitoring well at adjoining companion BCP site C915208 initially containing 9.4 ppm PCE. PCE levels at this monitoring point have dropped to 0.091 ppm PCE during the 2012 sampling event. The 2008 investigation confirmed that the bedrock zone does not appear to be contaminated with chlorinated solvents. An additional investigative boring and deep monitoring well was installed in 2012 at 267 Franklin Street to further assess deep groundwater impacts. Deep groundwater sampling confirmed dissolved chlorinated VOC contamination at levels up to 0.069 ppm total VOCs at this new deep well. A thin fill layer (3-5 feet) at the 432 Pearl Street parcel contains several SVOCs [benzo(a)anthracene, benzo(b)flourene, benzo(a)pyrene and dibenzo(a,h) anthracene) at levels slightly above commercial SCOs. There were no exceedances for metals above commercial levels at both parcels. Because of the extent of the dissolved shallow plume, vapor intrusion (VI) from the chlorinated solvents was a concern with structures on around the BCP site. Prior to the BCP volunteer s acquisition of the apartment building at 267 Franklin Street, a soil VI evaluation was completed by the Department in 2008. The VI

432 PEARL STREET (Continued) **S110748431**

evaluation revealed PCE impacts to indoor air quality inside the apartment building. The Department subsequently installed a sub-slab depressurization system (SSDS) inside the apartment building to address VI and reduce indoor air concentrations of PCE. Vapor intrusion was confirmed in another off-site building in 2011 and an SSDS was installed in 2012. Additional investigations were required to assess off-site impacts, health and safety concerns, the presence of DNAPL, and bedrock aquifer contamination. The DEC completed an off-site groundwater evaluation in 2009 which revealed that an elongated PCE plume has migrated in a southwesterly direction across Franklin Street. PCE contamination was revealed primarily in the shallow groundwater zone. Deep groundwater was impacted at one of the off-site monitoring points along Franklin Street. Additional investigation of impacts to downgradient properties and structures was implemented in 2011 and 2012 and revealed shallow groundwater zone contamination, over 3 ppm for PCE, at another downgradient property along Franklin Street. Post Remedial Action: A DEC approved in-situ remedial action measure was implemented in April 2014 and consisted of the following: ENHANCED SHALLOW GROUNDWATER BIOREMEDIATION In-situ shallow groundwater treatment was implemented in 2014 for site C915208 residual source only. Enhanced natural biodegradation of chlorinated VOCs (PCE and its breakdown products)was implemented in an area with the highest residual VOC contaminated shallow groundwater in the immediate vicinity of MW-5 (residual source area at Site C915208) to propagate the biological breakdown of contaminants through anaerobic reductive dechlorination. A mix of nutrients, buffers and chemical agents were injected into the subsurface to a target depth between 10 and 20 feet below ground surface to promote dechlorinating microbe growth. The microbial reductive dechlorination process was also enhanced with the injection of micron scale zero valent iron (ZVI) for physio-chemical abiotic reduction of residual chlorinated VOCs. No specific remediation measures to address residual chlorinated VOC contamination in the deep groundwater zone was proposed or implemented. PLUME REDUCTION Plume reduction will be accomplished by treating the groundwater for chlorinated VOCs via in-situ treatment methods such that the groundwater leaving the site has been effectively treated to water quality criteria. At this site, the shallow chlorinated VOC contaminant plume has migrated onto an adjoining property at 275 Franklin Street which is part of the adjoining BCP project site C915208 (275 Franklin Street Site). In 2014, a contaminant plume reduction measure was accomplished by injecting in-situ treatment materials along a series of injection points 10 to 20 feet in depth along accessible western and southern perimeter areas of the site forming a vertical permeable reactive treatment zone. The in-situ treatment materials utilized the same materials used in the source area treatment system to promote enhanced natural anaerobic reductive dechlorination and physio-chemical reduction of residual chlorinated VOC contamination in the shallow groundwater zone. No specific remediation measures were implemented to address off-site migration of residual chlorinated VOC contamination in the deep groundwater zone.

Health Problem: Direct contact with contaminants in the soil is unlikely because the site is covered with a building and pavement. People are not coming into contact with the contaminated groundwater because the area is served by a public water supply that is not affected by this contamination. Volatile organic compounds in the groundwater may move

432 PEARL STREET (Continued) **S110748431**

into the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. A sub-slab depressurization system (systems that ventilate/remove the air beneath the building) was installed in the on-site building to prevent the indoor air quality from being affected by the contamination in soil vapor beneath the buildings. The potential exists for the inhalation of site contaminants due to soil vapor intrusion for any future on-site development and occupancy.
Not reported
Dump: False
Structure: False
Lagoon: False
Landfill: False
Pond: False
Disp Start: Not reported
Disp Term: Not reported
Lat/Long: Not reported
Dell: Not reported
Record Add: 10/1/2012 12:15:00 PM
Record Upd: 12/16/2014 10:09:00 AM
Updated By: ewmelnyk
Own Op: Document Repository
Sub Type: NNN
Owner Name: Michael Mahaney
Owner Company: Buffalo and Erie Co. Public Library
Owner Address: 1 LaFayette Square
Owner Addr2: Not reported
Owner City,St,Zip: Buffalo, NY 14203
Owner Country: United States of America
Own Op: Applicant/Requestor
Sub Type: P03
Owner Name: Mark D. Croce
Owner Company: Buffalo Development Corporation
Owner Address: 257 Franklin Street
Owner Addr2: Not reported
Owner City,St,Zip: Buffalo, NY 14202
Owner Country: United States of America
HW Code: C915237
Waste Type: TETRACHLOROETHYLENE (PCE)
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915237
Waste Type: tetrachloroethene (PCE)
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915237
Waste Type: TRICHLOROETHENE (TCE)
Waste Quantity: UNKNOWN
Waste Code: Not reported
Crossref ID: C915208
Cross Ref Type Code: 22
Cross Ref Type: BCP Site ID
Record Added Date: 7/8/2010 2:40:00 PM
Record Updated: 7/8/2010 2:40:00 PM
Updated By: MOBARRIE

432 PEARL STREET (Continued) **S110748431**

Site Code: 437176
Control Name: O&M Plan
HW Code: C915237
Control Code: 33
Control Type: INST
Dt record added: 07/17/2013
Dt rec updated: 04/11/2017
Updated By: EWMELNYK
Site Code: 437176
Site Description: Location: The BCP site consists of two non-contiguous parcels in the City of Buffalo, Erie County. The BCP site contains a 0.45 acre parcel located at 432 Pearl Street and a 0.25 acre parcel located at 267 Franklin Street. The two parcels are adjacent to each other, but are separated by Asbury Alley owned by the City of Buffalo. The site is situated in an urban commercial district. The site is adjacent to BCP site C915208 also owned by the 432 Pearl Street BCP volunteer. The 432 Pearl Street BCP site and the adjacent BCP site are part of a common proposed redevelopment project. Site Features: The 432 Pearl Street parcel is a paved commercial parking lot. The 267 Franklin Street parcel site contains an occupied apartment building with a paved parking lot for the tenants. Current Zoning and Land Use: Both non-contiguous parcels that constitute the site are situated in the Downtown Opportunity (DO) zoning district which currently contains a mix of uses including apartment residences, restaurants, retail, entertainment, office and parking. Permitted use in the DO zoning district includes residential, office, (limited) retail, restaurant, hotel and entertainment. The surrounding parcels are currently used for a combination of commercial uses including surface parking, restaurant and entertainment. Past Use of the Site: Information concerning the use of both parcels dates back to the late 1800s when the area was predominantly closely spaced urban residential, interspersed with commercial businesses and establishments. 432 Pearl Street: In the late 1800s, the northern half of the parcel consisted of four separate lots with residential buildings facing Pearl Street and carriage sheds facing Asbury Alley. By the 1940s, one of the residences was demolished and converted to a surface parking lot. The balance of these residences were demolished in subsequent years and also converted to surface parking lots. No known date concerning the demolition of the residences and conversion to parking lots is available or provided. Continuing southward along this parcel, in the late 1800s, two lots also contained residences and two lots contained apartment/rooming houses. By the mid 1920, the two residences were replaced by a retail commercial building (record use indicates that a heating equipment company occupied the building). By the 1940s, the commercial building and apartment/rooming houses were demolished and converted to surface parking. 267 Franklin Street: In the late 1800s through 1926, land use consisted of two separate apartment buildings on this parcel. The northern half of the 267 Pearl Street parcel contained a residential apartment building facing Franklin Street. The apartment building appears to have been demolished between 1925 and 1946. No other land use for the former apartment building lot other than as a parking lot appears to have occurred after 1946. The southern half of the parcel contains the current tenement style apartment building which remains actively used as an occupied apartment building. Tenant parking is provided on the northern half of the site that contained the former apartment building. According to the BCP application, future development plans for the site, in

432 PEARL STREET (Continued) **S110748431**

conjunction with BCP site C915208, consists of a hotel with conference and parking facilities. As of 2015, development plans have changed and the site has been marketed for lease development. Site Geology and Hydrogeology: Overburden: The site is located within the Erie-Ontario lake plain physiographic province, which is typified by little topographic relief and gentle slope toward Lake Erie, except in the immediate vicinity of major drainage ways. The surficial geology of the Lake Erie plain generally consists of a thin glacial till layer, glaciolacustrine (lake-laid laminated silts and clays) deposits, alluvium, and soils derived by these deposits. Glacial till deposits were not encountered at the site except for a thin layer (1 to 2 feet thick) above limestone bedrock. The site geology consists of a lake-laid sandy ridge deposit about 40 to 45 feet thick with several interbedded silty clay lenses. The 432 Pearl Street parcel is covered by a thin soil/fill layer approximately 2 to 5 feet thick. The fill is characteristic of urban fill common in the City of Buffalo. Bedrock: The site is situated over the Onondaga formation limestone. Limestone bedrock was encountered about 52 feet below the surface. Hydrogeology: Unconfined shallow groundwater was encountered within the native soils at depths of approximately 10 to 12 feet below ground surface. Because of a silty clay soil lens within the sandy soil profile found at a depth of approximately 25 to 30 feet below ground surface, the site has a defined shallow and deep groundwater zone. The deep groundwater hydrostatic surface is nominally below the shallow groundwater surface. Site groundwater flow gradient (shallow and deep) appears to flow in a south/southwest direction. Regional groundwater appears to flow west/southwest toward Lake Erie and confluence of the Buffalo River.

Env Problem: Pre-Remedial Action: An RI commenced in this site and adjoining BCP site C915208 in late 2006. Results from this work revealed chlorinated solvents commonly used by dry cleaners (tetrachloroethene [PCE]) in soils up to 20,000 microgram/kilogram (ug/kg) PCE and shallow groundwater up to 19 parts per million (ppm) PCE at adjoining the BCP site C915208 parcel 275-277 Franklin St. The water quality standard for PCE is 0.005 ppm. The source area in shallow groundwater contamination appears to be centered around MW-5 on BCP site C915208. Investigation of the 267 Franklin Street parcel initially revealed chlorinated solvents in shallow groundwater at levels up to 18 ppm for PCE. The 2006 RI revealed an extensive shallow groundwater contaminant plume located on adjoining companion BCP site C915208 had migrated onto the 267 Franklin Street parcel, which is situated downgradient of BCP site C915208. The RI results suggest that the 432 Pearl Street parcel is on the fringe of the shallow groundwater contaminant plume emanating from source area (BCP site C915208), and the shallow groundwater contaminant levels were just slightly above the groundwater quality standard (0.005 ppm) for the VOC contaminants of concern. The 267 Franklin Street parcel is immediately downgradient of the source area (BCP site C915208), and as a result, the PCE contaminant levels on site were significantly higher in the shallow groundwater zone (up to 18 ppm prior to the implementation of an IRM). The deep groundwater zone was impacted, but to a lesser degree. Investigation of off-site areas by DEC on adjoining downgradient properties revealed the extensive chlorinated VOC plume extended to the south/southwest. A supplemental site investigation was conducted in 2008 to develop an IRM for BCP site C915208. An IRM to treat contaminated groundwater via in-situ methods was implemented in 2008 at the adjoining companion BCP site C915208. Because of a

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silty clay soil lens midway between the surface and bedrock, two distinct groundwater zones exist at the site. The silty clay soil lens has limited some downward migration of the dissolved contamination. However, the 2008 supplemental investigation of companion BCP site C915208 confirmed that deeper groundwater zone is contaminated with the chlorinated solvents, with one deep monitoring well at adjoining companion BCP site C915208 initially containing 9.4 ppm PCE. PCE levels at this monitoring point have dropped to 0.091 ppm PCE during the 2012 sampling event. The 2008 investigation confirmed that the bedrock zone does not appear to be contaminated with chlorinated solvents. An additional investigative boring and deep monitoring well was installed in 2012 at 267 Franklin Street to further assess deep groundwater impacts. Deep groundwater sampling confirmed dissolved chlorinated VOC contamination at levels up to 0.069 ppm total VOCs at this new deep well. A thin fill layer (3-5 feet) at the 432 Pearl Street parcel contains several SVOCs [benzo(a)anthracene, benzo(b)flourene, benzo(a)pyrene and dibenzo(a,h) anthracene) at levels slightly above commercial SCOs. There were no exceedances for metals above commercial levels at both parcels. Because of the extent of the dissolved shallow plume, vapor intrusion (VI) from the chlorinated solvents was a concern with structures on around the BCP site. Prior to the BCP volunteer s acquisition of the apartment building at 267 Franklin Street, a soil VI evaluation was completed by the Department in 2008. The VI evaluation revealed PCE impacts to indoor air quality inside the apartment building. The Department subsequently installed a sub-slab depressurization system (SSDS) inside the apartment building to address VI and reduce indoor air concentrations of PCE. Vapor intrusion was confirmed in another off-site building in 2011 and an SSDS was installed in 2012. Additional investigations were required to assess off-site impacts, health and safety concerns, the presence of DNAPL, and bedrock aquifer contamination. The DEC completed an off-site groundwater evaluation in 2009 which revealed that an elongated PCE plume has migrated in a southwesterly direction across Franklin Street. PCE contamination was revealed primarily in the shallow groundwater zone. Deep groundwater was impacted at one of the off-site monitoring points along Franklin Street. Additional investigation of impacts to downgradient properties and structures was implemented in 2011 and 2012 and revealed shallow groundwater zone contamination, over 3 ppm for PCE, at another downgradient property along Franklin Street. Post Remedial Action: A DEC approved in-situ remedial action measure was implemented in April 2014 and consisted of the following: ENHANCED SHALLOW GROUNDWATER BIOREMEDIATION In-situ shallow groundwater treatment was implemented in 2014 for site C915208 residual source only. Enhanced natural biodegradation of chlorinated VOCs (PCE and its breakdown products)was implemented in an area with the highest residual VOC contaminated shallow groundwater in the immediate vicinity of MW-5 (residual source area at Site C915208) to propagate the biological breakdown of contaminants through anaerobic reductive dechlorination. A mix of nutrients, buffers and chemical agents were injected into the subsurface to a target depth between 10 and 20 feet below ground surface to promote dechlorinating microbe growth. The microbial reductive dechlorination process was also enhanced with the injection of micron scale zero valent iron (ZVI) for physio-chemical abiotic reduction of residual chlorinated VOCs. No specific remediation measures to address residual chlorinated VOC contamination in the

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deep groundwater zone was proposed or implemented. PLUME REDUCTION Plume reduction will be accomplished by treating the groundwater for chlorinated VOCs via in-situ treatment methods such that the groundwater leaving the site has been effectively treated to water quality criteria. At this site, the shallow chlorinated VOC contaminant plume has migrated onto an adjoining property at 275 Franklin Street which is part of the adjoining BCP project site C915208 (275 Franklin Street Site). In 2014, a contaminant plume reduction measure was accomplished by injecting in-situ treatment materials along a series of injection points 10 to 20 feet in depth along accessible western and southern perimeter areas of the site forming a vertical permeable reactive treatment zone. The in-situ treatment materials utilized the same materials used in the source area treatment system to promote enhanced natural anaerobic reductive dechlorination and physio-chemical reduction of residual chlorinated VOC contamination in the shallow groundwater zone. No specific remediation measures were implemented to address off-site migration of residual chlorinated VOC contamination in the deep groundwater zone.

Health Problem: Direct contact with contaminants in the soil is unlikely because the site is covered with a building and pavement. People are not coming into contact with the contaminated groundwater because the area is served by a public water supply that is not affected by this contamination. Volatile organic compounds in the groundwater may move into the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. A sub-slab depressurization system (systems that ventilate/remove the air beneath the building) was installed in the on-site building to prevent the indoor air quality from being affected by the contamination in soil vapor beneath the buildings. The potential exists for the inhalation of site contaminants due to soil vapor intrusion for any future on-site development and occupancy.
Not reported
Dump: False
Structure: False
Lagoon: False
Landfill: False
Pond: False
Disp Start: Not reported
Disp Term: Not reported
Lat/Long: Not reported
Dell: Not reported
Record Add: 10/1/2012 12:15:00 PM
Record Upd: 12/16/2014 10:09:00 AM
Updated By: ewmelnyk
Own Op: Document Repository
Sub Type: NNN
Owner Name: Michael Mahaney
Owner Company: Buffalo and Erie Co. Public Library
Owner Address: 1 LaFayette Square
Owner Addr2: Not reported
Owner City,St,Zip: Buffalo, NY 14203
Owner Country: United States of America
Own Op: Applicant/Requestor
Sub Type: P03

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Owner Name: Mark D. Croce
Owner Company: Buffalo Development Corporation
Owner Address: 257 Franklin Street
Owner Addr2: Not reported
Owner City,St,Zip: Buffalo, NY 14202
Owner Country: United States of America
HW Code: C915237
Waste Type: TETRACHLOROETHYLENE (PCE)
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915237
Waste Type: tetrachloroethene (PCE)
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915237
Waste Type: TRICHLOROETHENE (TCE)
Waste Quantity: UNKNOWN
Waste Code: Not reported
Crossref ID: C915208
Cross Ref Type Code: 22
Cross Ref Type: BCP Site ID
Record Added Date: 7/8/2010 2:40:00 PM
Record Updated: 7/8/2010 2:40:00 PM
Updated By: MOBARRIE

Site Code: 437176
Control Name: Environmental Easement
HW Code: C915237
Control Code: J
Control Type: INST
Dt record added: 07/17/2013
Dt rec updated: 04/11/2017
Updated By: EWMELNYK
Site Code: 437176
Site Description: Location: The BCP site consists of two non-contiguous parcels in the City of Buffalo, Erie County. The BCP site contains a 0.45 acre parcel located at 432 Pearl Street and a 0.25 acre parcel located at 267 Franklin Street. The two parcels are adjacent to each other, but are separated by Asbury Alley owned by the City of Buffalo. The site is situated in an urban commercial district. The site is adjacent to BCP site C915208 also owned by the 432 Pearl Street BCP volunteer. The 432 Pearl Street BCP site and the adjacent BCP site are part of a common proposed redevelopment project. Site Features: The 432 Pearl Street parcel is a paved commercial parking lot. The 267 Franklin Street parcel site contains an occupied apartment building with a paved parking lot for the tenants. Current Zoning and Land Use: Both non-contiguous parcels that constitute the site are situated in the Downtown Opportunity (DO) zoning district which currently contains a mix of uses including apartment residences, restaurants, retail, entertainment, office and parking. Permitted use in the DO zoning district includes residential, office, (limited) retail, restaurant, hotel and entertainment. The surrounding parcels are currently used for a combination of commercial uses including surface parking, restaurant and entertainment. Past Use of the Site: Information concerning the use of both parcels dates back to the late 1800s when the area was predominantly closely spaced urban residential, interspersed with commercial businesses and establishments. 432 Pearl

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Street: In the late 1800s, the northern half of the parcel consisted of four separate lots with residential buildings facing Pearl Street and carriage sheds facing Asbury Alley. By the 1940s, one of the residences was demolished and converted to a surface parking lot. The balance of these residences were demolished in subsequent years and also converted to surface parking lots. No known date concerning the demolition of the residences and conversion to parking lots is available or provided. Continuing southward along this parcel, in the late 1800s, two lots also contained residences and two lots contained apartment/rooming houses. By the mid 1920, the two residences were replaced by a retail commercial building (record use indicates that a heating equipment company occupied the building). By the 1940s, the commercial building and apartment/rooming houses were demolished and converted to surface parking. 267 Franklin Street: In the late 1800s through 1926, land use consisted of two separate apartment buildings on this parcel. The northern half of the 267 Pearl Street parcel contained a residential apartment building facing Franklin Street. The apartment building appears to have been demolished between 1925 and 1946. No other land use for the former apartment building lot other than as a parking lot appears to have occurred after 1946. The southern half of the parcel contains the current tenement style apartment building which remains actively used as an occupied apartment building. Tenant parking is provided on the northern half of the site that contained the former apartment building. According to the BCP application, future development plans for the site, in conjunction with BCP site C915208, consists of a hotel with conference and parking facilities. As of 2015, development plans have changed and the site has been marketed for lease development. Site Geology and Hydrogeology: Overburden: The site is located within the Erie-Ontario lake plain physiographic province, which is typified by little topographic relief and gentle slope toward Lake Erie, except in the immediate vicinity of major drainage ways. The surficial geology of the Lake Erie plain generally consists of a thin glacial till layer, glaciolacustrine (lake-laid laminated silts and clays) deposits, alluvium, and soils derived by these deposits. Glacial till deposits were not encountered at the site except for a thin layer (1 to 2 feet thick) above limestone bedrock. The site geology consists of a lake-laid sandy ridge deposit about 40 to 45 feet thick with several interbedded silty clay lenses. The 432 Pearl Street parcel is covered by a thin soil/fill layer approximately 2 to 5 feet thick. The fill is characteristic of urban fill common in the City of Buffalo. Bedrock: The site is situated over the Onondaga formation limestone. Limestone bedrock was encountered about 52 feet below the surface. Hydrogeology: Unconfined shallow groundwater was encountered within the native soils at depths of approximately 10 to 12 feet below ground surface. Because of a silty clay soil lens within the sandy soil profile found at a depth of approximately 25 to 30 feet below ground surface, the site has a defined shallow and deep groundwater zone. The deep groundwater hydrostatic surface is nominally below the shallow groundwater surface. Site groundwater flow gradient (shallow and deep) appears to flow in a south/southwest direction. Regional groundwater appears to flow west/southwest toward Lake Erie and confluence of the Buffalo River.

Env Problem: Pre-Remedial Action: An RI commenced in this site and adjoining BCP site C915208 in late 2006. Results from this work revealed chlorinated solvents commonly used by dry cleaners (tetrachloroethene [PCE]) in soils up to 20,000 microgram/kilogram (ug/kg) PCE and

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shallow groundwater up to 19 parts per million (ppm) PCE at adjoining the BCP site C915208 parcel 275-277 Franklin St. The water quality standard for PCE is 0.005 ppm. The source area in shallow groundwater contamination appears to be centered around MW-5 on BCP site C915208. Investigation of the 267 Franklin Street parcel initially revealed chlorinated solvents in shallow groundwater at levels up to 18 ppm for PCE. The 2006 RI revealed an extensive shallow groundwater contaminant plume located on adjoining companion BCP site C915208 had migrated onto the 267 Franklin Street parcel, which is situated downgradient of BCP site C915208. The RI results suggest that the 432 Pearl Street parcel is on the fringe of the shallow groundwater contaminant plume emanating from source area (BCP site C915208), and the shallow groundwater contaminant levels were just slightly above the groundwater quality standard (0.005 ppm) for the VOC contaminants of concern. The 267 Franklin Street parcel is immediately downgradient of the source area (BCP site C915208), and as a result, the PCE contaminant levels on site were significantly higher in the shallow groundwater zone (up to 18 ppm prior to the implementation of an IRM). The deep groundwater zone was impacted, but to a lesser degree. Investigation of off-site areas by DEC on adjoining downgradient properties revealed the extensive chlorinated VOC plume extended to the south/southwest. A supplemental site investigation was conducted in 2008 to develop an IRM for BCP site C915208. An IRM to treat contaminated groundwater via in-situ methods was implemented in 2008 at the adjoining companion BCP site C915208. Because of a silty clay soil lens midway between the surface and bedrock, two distinct groundwater zones exist at the site. The silty clay soil lens has limited some downward migration of the dissolved contamination. However, the 2008 supplemental investigation of companion BCP site C915208 confirmed that deeper groundwater zone is contaminated with the chlorinated solvents, with one deep monitoring well at adjoining companion BCP site C915208 initially containing 9.4 ppm PCE. PCE levels at this monitoring point have dropped to 0.091 ppm PCE during the 2012 sampling event. The 2008 investigation confirmed that the bedrock zone does not appear to be contaminated with chlorinated solvents. An additional investigative boring and deep monitoring well was installed in 2012 at 267 Franklin Street to further assess deep groundwater impacts. Deep groundwater sampling confirmed dissolved chlorinated VOC contamination at levels up to 0.069 ppm total VOCs at this new deep well. A thin fill layer (3-5 feet) at the 432 Pearl Street parcel contains several SVOCs [benzo(a)anthracene, benzo(b)flourene, benzo(a)pyrene and dibenzo(a,h) anthracene) at levels slightly above commercial SCOs. There were no exceedances for metals above commercial levels at both parcels. Because of the extent of the dissolved shallow plume, vapor intrusion (VI) from the chlorinated solvents was a concern with structures on around the BCP site. Prior to the BCP volunteer s acquisition of the apartment building at 267 Franklin Street, a soil VI evaluation was completed by the Department in 2008. The VI evaluation revealed PCE impacts to indoor air quality inside the apartment building. The Department subsequently installed a sub-slab depressurization system (SSDS) inside the apartment building to address VI and reduce indoor air concentrations of PCE. Vapor intrusion was confirmed in another off-site building in 2011 and an SSDS was installed in 2012. Additional investigations were required to assess off-site impacts, health and safety concerns, the presence of DNAPL, and bedrock aquifer contamination. The DEC completed an

432 PEARL STREET (Continued) **S110748431**

off-site groundwater evaluation in 2009 which revealed that an elongated PCE plume has migrated in a southwesterly direction across Franklin Street. PCE contamination was revealed primarily in the shallow groundwater zone. Deep groundwater was impacted at one of the off-site monitoring points along Franklin Street. Additional investigation of impacts to downgradient properties and structures was implemented in 2011 and 2012 and revealed shallow groundwater zone contamination, over 3 ppm for PCE, at another downgradient property along Franklin Street. Post Remedial Action: A DEC approved in-situ remedial action measure was implemented in April 2014 and consisted of the following: ENHANCED SHALLOW GROUNDWATER BIOREMEDIATION In-situ shallow groundwater treatment was implemented in 2014 for site C915208 residual source only. Enhanced natural biodegradation of chlorinated VOCs (PCE and its breakdown products)was implemented in an area with the highest residual VOC contaminated shallow groundwater in the immediate vicinity of MW-5 (residual source area at Site C915208) to propagate the biological breakdown of contaminants through anaerobic reductive dechlorination. A mix of nutrients, buffers and chemical agents were injected into the subsurface to a target depth between 10 and 20 feet below ground surface to promote dechlorinating microbe growth. The microbial reductive dechlorination process was also enhanced with the injection of micron scale zero valent iron (ZVI) for physio-chemical abiotic reduction of residual chlorinated VOCs. No specific remediation measures to address residual chlorinated VOC contamination in the deep groundwater zone was proposed or implemented. PLUME REDUCTION Plume reduction will be accomplished by treating the groundwater for chlorinated VOCs via in-situ treatment methods such that the groundwater leaving the site has been effectively treated to water quality criteria. At this site, the shallow chlorinated VOC contaminant plume has migrated onto an adjoining property at 275 Franklin Street which is part of the adjoining BCP project site C915208 (275 Franklin Street Site). In 2014, a contaminant plume reduction measure was accomplished by injecting in-situ treatment materials along a series of injection points 10 to 20 feet in depth along accessible western and southern perimeter areas of the site forming a vertical permeable reactive treatment zone. The in-situ treatment materials utilized the same materials used in the source area treatment system to promote enhanced natural anaerobic reductive dechlorination and physio-chemical reduction of residual chlorinated VOC contamination in the shallow groundwater zone. No specific remediation measures were implemented to address off-site migration of residual chlorinated VOC contamination in the deep groundwater zone.

Health Problem: Direct contact with contaminants in the soil is unlikely because the site is covered with a building and pavement. People are not coming into contact with the contaminated groundwater because the area is served by a public water supply that is not affected by this contamination. Volatile organic compounds in the groundwater may move into the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. A sub-slab depressurization system (systems that ventilate/remove the air beneath the building) was installed in the on-site building to prevent the indoor air quality from being affected by the contamination in soil vapor beneath the buildings.

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The potential exists for the inhalation of site contaminants due to soil vapor intrusion for any future on-site development and occupancy.
Not reported
Dump: False
Structure: False
Lagoon: False
Landfill: False
Pond: False
Disp Start: Not reported
Disp Term: Not reported
Lat/Long: Not reported
Dell: Not reported
Record Add: 10/1/2012 12:15:00 PM
Record Upd: 12/16/2014 10:09:00 AM
Updated By: ewmelnyk
Own Op: Document Repository
Sub Type: NNN
Owner Name: Michael Mahaney
Owner Company: Buffalo and Erie Co. Public Library
Owner Address: 1 LaFayette Square
Owner Addr2: Not reported
Owner City,St,Zip: Buffalo, NY 14203
Owner Country: United States of America
Own Op: Applicant/Requestor
Sub Type: P03
Owner Name: Mark D. Croce
Owner Company: Buffalo Development Corporation
Owner Address: 257 Franklin Street
Owner Addr2: Not reported
Owner City,St,Zip: Buffalo, NY 14202
Owner Country: United States of America
HW Code: C915237
Waste Type: TETRACHLOROETHYLENE (PCE)
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915237
Waste Type: tetrachloroethene (PCE)
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915237
Waste Type: TRICHLOROETHENE (TCE)
Waste Quantity: UNKNOWN
Waste Code: Not reported
Crossref ID: C915208
Cross Ref Type Code: 22
Cross Ref Type: BCP Site ID
Record Added Date: 7/8/2010 2:40:00 PM
Record Updated: 7/8/2010 2:40:00 PM
Updated By: MOBARRIE

Site Code: 437176
Control Name: Monitoring Plan
HW Code: C915237
Control Code: 31
Control Type: INST
Dt record added: 07/17/2013
Dt rec updated: 04/11/2017

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Updated By: EWMELNYK
Site Code: 437176
Site Description: Location: The BCP site consists of two non-contiguous parcels in the City of Buffalo, Erie County. The BCP site contains a 0.45 acre parcel located at 432 Pearl Street and a 0.25 acre parcel located at 267 Franklin Street. The two parcels are adjacent to each other, but are separated by Asbury Alley owned by the City of Buffalo. The site is situated in an urban commercial district. The site is adjacent to BCP site C915208 also owned by the 432 Pearl Street BCP volunteer. The 432 Pearl Street BCP site and the adjacent BCP site are part of a common proposed redevelopment project. Site Features: The 432 Pearl Street parcel is a paved commercial parking lot. The 267 Franklin Street parcel site contains an occupied apartment building with a paved parking lot for the tenants. Current Zoning and Land Use: Both non-contiguous parcels that constitute the site are situated in the Downtown Opportunity (DO) zoning district which currently contains a mix of uses including apartment residences, restaurants, retail, entertainment, office and parking. Permitted use in the DO zoning district includes residential, office, (limited) retail, restaurant, hotel and entertainment. The surrounding parcels are currently used for a combination of commercial uses including surface parking, restaurant and entertainment. Past Use of the Site: Information concerning the use of both parcels dates back to the late 1800s when the area was predominantly closely spaced urban residential, interspersed with commercial businesses and establishments. 432 Pearl Street: In the late 1800s, the northern half of the parcel consisted of four separate lots with residential buildings facing Pearl Street and carriage sheds facing Asbury Alley. By the 1940s, one of the residences was demolished and converted to a surface parking lot. The balance of these residences were demolished in subsequent years and also converted to surface parking lots. No known date concerning the demolition of the residences and conversion to parking lots is available or provided. Continuing southward along this parcel, in the late 1800s, two lots also contained residences and two lots contained apartment/rooming houses. By the mid 1920, the two residences were replaced by a retail commercial building (record use indicates that a heating equipment company occupied the building). By the 1940s, the commercial building and apartment/rooming houses were demolished and converted to surface parking. 267 Franklin Street: In the late 1800s through 1926, land use consisted of two separate apartment buildings on this parcel. The northern half of the 267 Pearl Street parcel contained a residential apartment building facing Franklin Street. The apartment building appears to have been demolished between 1925 and 1946. No other land use for the former apartment building lot other than as a parking lot appears to have occurred after 1946. The southern half of the parcel contains the current tenement style apartment building which remains actively used as an occupied apartment building. Tenant parking is provided on the northern half of the site that contained the former apartment building. According to the BCP application, future development plans for the site, in conjunction with BCP site C915208, consists of a hotel with conference and parking facilities. As of 2015, development plans have changed and the site has been marketed for lease development. Site Geology and Hydrogeology: Overburden: The site is located within the Erie-Ontario lake plain physiographic province, which is typified by little topographic relief and gentle slope toward Lake Erie, except in the immediate vicinity of major drainage ways. The surficial

432 PEARL STREET (Continued) **S110748431**

geology of the Lake Erie plain generally consists of a thin glacial till layer, glaciolacustrine (lake-laid laminated silts and clays) deposits, alluvium, and soils derived by these deposits. Glacial till deposits were not encountered at the site except for a thin layer (1 to 2 feet thick) above limestone bedrock. The site geology consists of a lake-laid sandy ridge deposit about 40 to 45 feet thick with several interbedded silty clay lenses. The 432 Pearl Street parcel is covered by a thin soil/fill layer approximately 2 to 5 feet thick. The fill is characteristic of urban fill common in the City of Buffalo. Bedrock: The site is situated over the Onondaga formation limestone. Limestone bedrock was encountered about 52 feet below the surface. Hydrogeology: Unconfined shallow groundwater was encountered within the native soils at depths of approximately 10 to 12 feet below ground surface. Because of a silty clay soil lens within the sandy soil profile found at a depth of approximately 25 to 30 feet below ground surface, the site has a defined shallow and deep groundwater zone. The deep groundwater hydrostatic surface is nominally below the shallow groundwater surface. Site groundwater flow gradient (shallow and deep) appears to flow in a south/southwest direction. Regional groundwater appears to flow west/southwest toward Lake Erie and confluence of the Buffalo River.

Env Problem: Pre-Remedial Action: An RI commenced in this site and adjoining BCP site C915208 in late 2006. Results from this work revealed chlorinated solvents commonly used by dry cleaners (tetrachloroethene [PCE]) in soils up to 20,000 microgram/kilogram (ug/kg) PCE and shallow groundwater up to 19 parts per million (ppm) PCE at adjoining the BCP site C915208 parcel 275-277 Franklin St. The water quality standard for PCE is 0.005 ppm. The source area in shallow groundwater contamination appears to be centered around MW-5 on BCP site C915208. Investigation of the 267 Franklin Street parcel initially revealed chlorinated solvents in shallow groundwater at levels up to 18 ppm for PCE. The 2006 RI revealed an extensive shallow groundwater contaminant plume located on adjoining companion BCP site C915208 had migrated onto the 267 Franklin Street parcel, which is situated downgradient of BCP site C915208. The RI results suggest that the 432 Pearl Street parcel is on the fringe of the shallow groundwater contaminant plume emanating from source area (BCP site C915208), and the shallow groundwater contaminant levels were just slightly above the groundwater quality standard (0.005 ppm) for the VOC contaminants of concern. The 267 Franklin Street parcel is immediately downgradient of the source area (BCP site C915208), and as a result, the PCE contaminant levels on site were significantly higher in the shallow groundwater zone (up to 18 ppm prior to the implementation of an IRM). The deep groundwater zone was impacted, but to a lesser degree. Investigation of off-site areas by DEC on adjoining downgradient properties revealed the extensive chlorinated VOC plume extended to the south/southwest. A supplemental site investigation was conducted in 2008 to develop an IRM for BCP site C915208. An IRM to treat contaminated groundwater via in-situ methods was implemented in 2008 at the adjoining companion BCP site C915208. Because of a silty clay soil lens midway between the surface and bedrock, two distinct groundwater zones exist at the site. The silty clay soil lens has limited some downward migration of the dissolved contamination. However, the 2008 supplemental investigation of companion BCP site C915208 confirmed that deeper groundwater zone is contaminated with the chlorinated solvents, with one deep monitoring well at adjoining companion BCP site C915208 initially containing 9.4

432 PEARL STREET (Continued) **S110748431**

ppm PCE. PCE levels at this monitoring point have dropped to 0.091 ppm PCE during the 2012 sampling event. The 2008 investigation confirmed that the bedrock zone does not appear to be contaminated with chlorinated solvents. An additional investigative boring and deep monitoring well was installed in 2012 at 267 Franklin Street to further assess deep groundwater impacts. Deep groundwater sampling confirmed dissolved chlorinated VOC contamination at levels up to 0.069 ppm total VOCs at this new deep well. A thin fill layer (3-5 feet) at the 432 Pearl Street parcel contains several SVOCs [benzo(a)anthracene, benzo(b)flourene, benzo(a)pyrene and dibenzo(a,h) anthracene) at levels slightly above commercial SCOs. There were no exceedances for metals above commercial levels at both parcels. Because of the extent of the dissolved shallow plume, vapor intrusion (VI) from the chlorinated solvents was a concern with structures on around the BCP site. Prior to the BCP volunteer s acquisition of the apartment building at 267 Franklin Street, a soil VI evaluation was completed by the Department in 2008. The VI evaluation revealed PCE impacts to indoor air quality inside the apartment building. The Department subsequently installed a sub-slab depressurization system (SSDS) inside the apartment building to address VI and reduce indoor air concentrations of PCE. Vapor intrusion was confirmed in another off-site building in 2011 and an SSDS was installed in 2012. Additional investigations were required to assess off-site impacts, health and safety concerns, the presence of DNAPL, and bedrock aquifer contamination. The DEC completed an off-site groundwater evaluation in 2009 which revealed that an elongated PCE plume has migrated in a southwesterly direction across Franklin Street. PCE contamination was revealed primarily in the shallow groundwater zone. Deep groundwater was impacted at one of the off-site monitoring points along Franklin Street. Additional investigation of impacts to downgradient properties and structures was implemented in 2011 and 2012 and revealed shallow groundwater zone contamination, over 3 ppm for PCE, at another downgradient property along Franklin Street. Post Remedial Action: A DEC approved in-situ remedial action measure was implemented in April 2014 and consisted of the following: ENHANCED SHALLOW GROUNDWATER BIOREMEDIATION In-situ shallow groundwater treatment was implemented in 2014 for site C915208 residual source only. Enhanced natural biodegradation of chlorinated VOCs (PCE and its breakdown products)was implemented in an area with the highest residual VOC contaminated shallow groundwater in the immediate vicinity of MW-5 (residual source area at Site C915208) to propagate the biological breakdown of contaminants through anaerobic reductive dechlorination. A mix of nutrients, buffers and chemical agents were injected into the subsurface to a target depth between 10 and 20 feet below ground surface to promote dechlorinating microbe growth. The microbial reductive dechlorination process was also enhanced with the injection of micron scale zero valent iron (ZVI) for physio-chemical abiotic reduction of residual chlorinated VOCs. No specific remediation measures to address residual chlorinated VOC contamination in the deep groundwater zone was proposed or implemented. PLUME REDUCTION Plume reduction will be accomplished by treating the groundwater for chlorinated VOCs via in-situ treatment methods such that the groundwater leaving the site has been effectively treated to water quality criteria. At this site, the shallow chlorinated VOC contaminant plume has migrated onto an adjoining property at 275 Franklin Street which is part of the adjoining BCP project site

432 PEARL STREET (Continued) **S110748431**

C915208 (275 Franklin Street Site). In 2014, a contaminant plume reduction measure was accomplished by injecting in-situ treatment materials along a series of injection points 10 to 20 feet in depth along accessible western and southern perimeter areas of the site forming a vertical permeable reactive treatment zone. The in-situ treatment materials utilized the same materials used in the source area treatment system to promote enhanced natural anaerobic reductive dechlorination and physio-chemical reduction of residual chlorinated VOC contamination in the shallow groundwater zone. No specific remediation measures were implemented to address off-site migration of residual chlorinated VOC contamination in the deep groundwater zone.

Health Problem: Direct contact with contaminants in the soil is unlikely because the site is covered with a building and pavement. People are not coming into contact with the contaminated groundwater because the area is served by a public water supply that is not affected by this contamination. Volatile organic compounds in the groundwater may move into the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. A sub-slab depressurization system (systems that ventilate/remove the air beneath the building) was installed in the on-site building to prevent the indoor air quality from being affected by the contamination in soil vapor beneath the buildings. The potential exists for the inhalation of site contaminants due to soil vapor intrusion for any future on-site development and occupancy.
Not reported
Dump: False
Structure: False
Lagoon: False
Landfill: False
Pond: False
Disp Start: Not reported
Disp Term: Not reported
Lat/Long: Not reported
Dell: Not reported
Record Add: 10/1/2012 12:15:00 PM
Record Upd: 12/16/2014 10:09:00 AM
Updated By: ewmelnyk
Own Op: Document Repository
Sub Type: NNN
Owner Name: Michael Mahaney
Owner Company: Buffalo and Erie Co. Public Library
Owner Address: 1 LaFayette Square
Owner Addr2: Not reported
Owner City,St,Zip: Buffalo, NY 14203
Owner Country: United States of America
Own Op: Applicant/Requestor
Sub Type: P03
Owner Name: Mark D. Croce
Owner Company: Buffalo Development Corporation
Owner Address: 257 Franklin Street
Owner Addr2: Not reported
Owner City,St,Zip: Buffalo, NY 14202
Owner Country: United States of America
HW Code: C915237

432 PEARL STREET (Continued) **S110748431**

Waste Type: TETRACHLOROETHYLENE (PCE)
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915237
Waste Type: tetrachloroethene (PCE)
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: C915237
Waste Type: TRICHLOROETHENE (TCE)
Waste Quantity: UNKNOWN
Waste Code: Not reported
Crossref ID: C915208
Cross Ref Type Code: 22
Cross Ref Type: BCP Site ID
Record Added Date: 7/8/2010 2:40:00 PM
Record Updated: 7/8/2010 2:40:00 PM
Updated By: MOBARRIE

BROWNFIELDS:
Program: BCP
Site Code: 437176
Acres: 0.7
HW Code: C915237
SWIS: 1502
Town: Buffalo (c)
Record Added Date: 07/08/2010
Record Updated Date: 07/31/2017
Update By: CRSTANIS
Site Description: Location: The BCP site consists of two non-contiguous parcels in the City of Buffalo, Erie County. The BCP site contains a 0.45 acre parcel located at 432 Pearl Street and a 0.25 acre parcel located at 267 Franklin Street. The two parcels are adjacent to each other, but are separated by Asbury Alley owned by the City of Buffalo. The site is situated in an urban commercial district. The site is adjacent to BCP site C915208 also owned by the 432 Pearl Street BCP volunteer. The 432 Pearl Street BCP site and the adjacent BCP site are part of a common proposed redevelopment project. Site Features: The 432 Pearl Street parcel is a paved commercial parking lot. The 267 Franklin Street parcel site contains an occupied apartment building with a paved parking lot for the tenants. Current Zoning and Land Use: Both non-contiguous parcels that constitute the site are situated in the Downtown Opportunity (DO) zoning district which currently contains a mix of uses including apartment residences, restaurants, retail, entertainment, office and parking. Permitted use in the DO zoning district includes residential, office, (limited) retail, restaurant, hotel and entertainment. The surrounding parcels are currently used for a combination of commercial uses including surface parking, restaurant and entertainment. Past Use of the Site: Information concerning the use of both parcels dates back to the late 1800s when the area was predominantly closely spaced urban residential, interspersed with commercial businesses and establishments. 432 Pearl Street: In the late 1800s, the northern half of the parcel consisted of four separate lots with residential buildings facing Pearl Street and carriage sheds facing Asbury Alley. By the 1940s, one of the residences was demolished and converted to a surface parking lot. The balance of these residences were demolished in subsequent years and also converted to surface parking lots. No known date concerning the

432 PEARL STREET (Continued) **S110748431**

demolition of the residences and conversion to parking lots is available or provided. Continuing southward along this parcel, in the late 1800s, two lots also contained residences and two lots contained apartment/rooming houses. By the mid 1920, the two residences were replaced by a retail commercial building (record use indicates that a heating equipment company occupied the building). By the 1940s, the commercial building and apartment/rooming houses were demolished and converted to surface parking. 267 Franklin Street: In the late 1800s through 1926, land use consisted of two separate apartment buildings on this parcel. The northern half of the 267 Pearl Street parcel contained a residential apartment building facing Franklin Street. The apartment building appears to have been demolished between 1925 and 1946. No other land use for the former apartment building lot other than as a parking lot appears to have occurred after 1946. The southern half of the parcel contains the current tenement style apartment building which remains actively used as an occupied apartment building. Tenant parking is provided on the northern half of the site that contained the former apartment building. According to the BCP application, future development plans for the site, in conjunction with BCP site C915208, consists of a hotel with conference and parking facilities. As of 2015, development plans have changed and the site has been marketed for lease development. Site Geology and Hydrogeology: Overburden: The site is located within the Erie-Ontario lake plain physiographic province, which is typified by little topographic relief and gentle slope toward Lake Erie, except in the immediate vicinity of major drainage ways. The surficial geology of the Lake Erie plain generally consists of a thin glacial till layer, glaciolacustrine (lake-laid laminated silts and clays) deposits, alluvium, and soils derived by these deposits. Glacial till deposits were not encountered at the site except for a thin layer (1 to 2 feet thick) above limestone bedrock. The site geology consists of a lake-laid sandy ridge deposit about 40 to 45 feet thick with several interbedded silty clay lenses. The 432 Pearl Street parcel is covered by a thin soil/fill layer approximately 2 to 5 feet thick. The fill is characteristic of urban fill common in the City of Buffalo. Bedrock: The site is situated over the Onondaga formation limestone. Limestone bedrock was encountered about 52 feet below the surface. Hydrogeology: Unconfined shallow groundwater was encountered within the native soils at depths of approximately 10 to 12 feet below ground surface. Because of a silty clay soil lens within the sandy soil profile found at a depth of approximately 25 to 30 feet below ground surface, the site has a defined shallow and deep groundwater zone. The deep groundwater hydrostatic surface is nominally below the shallow groundwater surface. Site groundwater flow gradient (shallow and deep) appears to flow in a south/southwest direction. Regional groundwater appears to flow west/southwest toward Lake Erie and confluence of the Buffalo River.

Env Problem:

Pre-Remedial Action: An RI commenced in this site and adjoining BCP site C915208 in late 2006. Results from this work revealed chlorinated solvents commonly used by dry cleaners (tetrachloroethene [PCE]) in soils up to 20,000 microgram/kilogram (ug/kg) PCE and shallow groundwater up to 19 parts per million (ppm) PCE at adjoining the BCP site C915208 parcel 275-277 Franklin St. The water quality standard for PCE is 0.005 ppm. The source area in shallow groundwater contamination appears to be centered around MW-5 on BCP site C915208. Investigation of the 267 Franklin Street parcel initially revealed chlorinated solvents in shallow groundwater at levels up to 18 ppm

432 PEARL STREET (Continued) **S110748431**

for PCE. The 2006 RI revealed an extensive shallow groundwater contaminant plume located on adjoining companion BCP site C915208 had migrated onto the 267 Franklin Street parcel, which is situated downgradient of BCP site C915208. The RI results suggest that the 432 Pearl Street parcel is on the fringe of the shallow groundwater contaminant plume emanating from source area (BCP site C915208), and the shallow groundwater contaminant levels were just slightly above the groundwater quality standard (0.005 ppm) for the VOC contaminants of concern. The 267 Franklin Street parcel is immediately downgradient of the source area (BCP site C915208), and as a result, the PCE contaminant levels on site were significantly higher in the shallow groundwater zone (up to 18 ppm prior to the implementation of an IRM). The deep groundwater zone was impacted, but to a lesser degree. Investigation of off-site areas by DEC on adjoining downgradient properties revealed the extensive chlorinated VOC plume extended to the south/southwest. A supplemental site investigation was conducted in 2008 to develop an IRM for BCP site C915208. An IRM to treat contaminated groundwater via in-situ methods was implemented in 2008 at the adjoining companion BCP site C915208. Because of a silty clay soil lens midway between the surface and bedrock, two distinct groundwater zones exist at the site. The silty clay soil lens has limited some downward migration of the dissolved contamination. However, the 2008 supplemental investigation of companion BCP site C915208 confirmed that deeper groundwater zone is contaminated with the chlorinated solvents, with one deep monitoring well at adjoining companion BCP site C915208 initially containing 9.4 ppm PCE. PCE levels at this monitoring point have dropped to 0.091 ppm PCE during the 2012 sampling event. The 2008 investigation confirmed that the bedrock zone does not appear to be contaminated with chlorinated solvents. An additional investigative boring and deep monitoring well was installed in 2012 at 267 Franklin Street to further assess deep groundwater impacts. Deep groundwater sampling confirmed dissolved chlorinated VOC contamination at levels up to 0.069 ppm total VOCs at this new deep well. A thin fill layer (3-5 feet) at the 432 Pearl Street parcel contains several SVOCs [benzo(a)anthracene, benzo(b)flourene, benzo(a)pyrene and dibenzo(a,h) anthracene) at levels slightly above commercial SCOs. There were no exceedances for metals above commercial levels at both parcels. Because of the extent of the dissolved shallow plume, vapor intrusion (VI) from the chlorinated solvents was a concern with structures on around the BCP site. Prior to the BCP volunteer s acquisition of the apartment building at 267 Franklin Street, a soil VI evaluation was completed by the Department in 2008. The VI evaluation revealed PCE impacts to indoor air quality inside the apartment building. The Department subsequently installed a sub-slab depressurization system (SSDS) inside the apartment building to address VI and reduce indoor air concentrations of PCE. Vapor intrusion was confirmed in another off-site building in 2011 and an SSDS was installed in 2012. Additional investigations were required to assess off-site impacts, health and safety concerns, the presence of DNAPL, and bedrock aquifer contamination. The DEC completed an off-site groundwater evaluation in 2009 which revealed that an elongated PCE plume has migrated in a southwesterly direction across Franklin Street. PCE contamination was revealed primarily in the shallow groundwater zone. Deep groundwater was impacted at one of the off-site monitoring points along Franklin Street. Additional investigation of impacts to downgradient properties and structures

432 PEARL STREET (Continued) **S110748431**

was implemented in 2011 and 2012 and revealed shallow groundwater zone contamination, over 3 ppm for PCE, at another downgradient property along Franklin Street. Post Remedial Action: A DEC approved in-situ remedial action measure was implemented in April 2014 and consisted of the following: ENHANCED SHALLOW GROUNDWATER BIOREMEDIATION In-situ shallow groundwater treatment was implemented in 2014 for site C915208 residual source only. Enhanced natural biodegradation of chlorinated VOCs (PCE and its breakdown products)was implemented in an area with the highest residual VOC contaminated shallow groundwater in the immediate vicinity of MW-5 (residual source area at Site C915208) to propagate the biological breakdown of contaminants through anaerobic reductive dechlorination. A mix of nutrients, buffers and chemical agents were injected into the subsurface to a target depth between 10 and 20 feet below ground surface to promote dechlorinating microbe growth. The microbial reductive dechlorination process was also enhanced with the injection of micron scale zero valent iron (ZVI) for physio-chemical abiotic reduction of residual chlorinated VOCs. No specific remediation measures to address residual chlorinated VOC contamination in the deep groundwater zone was proposed or implemented. PLUME REDUCTION Plume reduction will be accomplished by treating the groundwater for chlorinated VOCs via in-situ treatment methods such that the groundwater leaving the site has been effectively treated to water quality criteria. At this site, the shallow chlorinated VOC contaminant plume has migrated onto an adjoining property at 275 Franklin Street which is part of the adjoining BCP project site C915208 (275 Franklin Street Site). In 2014, a contaminant plume reduction measure was accomplished by injecting in-situ treatment materials along a series of injection points 10 to 20 feet in depth along accessible western and southern perimeter areas of the site forming a vertical permeable reactive treatment zone. The in-situ treatment materials utilized the same materials used in the source area treatment system to promote enhanced natural anaerobic reductive dechlorination and physio-chemical reduction of residual chlorinated VOC contamination in the shallow groundwater zone. No specific remediation measures were implemented to address off-site migration of residual chlorinated VOC contamination in the deep groundwater zone.

Health Problem: Direct contact with contaminants in the soil is unlikely because the site is covered with a building and pavement. People are not coming into contact with the contaminated groundwater because the area is served by a public water supply that is not affected by this contamination. Volatile organic compounds in the groundwater may move into the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. A sub-slab depressurization system (systems that ventilate/remove the air beneath the building) was installed in the on-site building to prevent the indoor air quality from being affected by the contamination in soil vapor beneath the buildings. The potential exists for the inhalation of site contaminants due to soil vapor intrusion for any future on-site development and occupancy.

Dump: False
Structure: False
Lagoon: False
Landfill: False

432 PEARL STREET (Continued) **S110748431**

Pond:	False
Disp Start:	Not reported
Disp Term:	Not reported
Lat/Long:	Not reported
Dell:	Not reported
Record Add:	10/1/2012 12:15:00 PM
Record Upd:	12/16/2014 10:09:00 AM
Updated By:	ewmelnyk
Own Op:	Document Repository
Sub Type:	NNN
Owner Name:	Michael Mahaney
Owner Company:	Buffalo and Erie Co. Public Library
Owner Address:	1 LaFayette Square
Owner Addr2:	Not reported
Owner City,St,Zip:	Buffalo, NY 14203
Owner Country:	United States of America
Own Op:	Applicant/Requestor
Sub Type:	P03
Owner Name:	Mark D. Croce
Owner Company:	Buffalo Development Corporation
Owner Address:	257 Franklin Street
Owner Addr2:	Not reported
Owner City,St,Zip:	Buffalo, NY 14202
Owner Country:	United States of America
HW Code:	C915237
Waste Type:	TETRACHLOROETHYLENE (PCE)
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915237
Waste Type:	tetrachloroethene (PCE)
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915237
Waste Type:	TRICHLOROETHENE (TCE)
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
Crossref ID:	C915208
Cross Ref Type Code:	22
Cross Ref Type:	BCP Site ID
Record Added Date:	7/8/2010 2:40:00 PM
Record Updated:	7/8/2010 2:40:00 PM
Updated By:	MOBARRIE

84
ENE
1/4-1/2
0.341 mi.
1800 ft.

ROSWELL PARK **NY LTANKS** **S118953689**
666 ELM STREET **N/A**
BUFFALO, NY

Relative:
Higher

Actual:
637 ft.

LTANKS:

Facility ID:	8905775
Site ID:	195812
Closed Date:	1989-11-22
Spill Number:	8905775
Spill Date:	1989-09-07
Spill Cause:	Tank Failure
Spill Source:	Institutional, Educational, Gov., Other
Spill Class:	Not reported

ROSWELL PARK (Continued) **S118953689**

Cleanup Ceased:	1989-11-22
SWIS:	1502
Investigator:	LYONS
Referred To:	Not reported
Reported to Dept:	1989-09-08
CID:	Not reported
Water Affected:	Not reported
Spill Notifier:	Responsible Party
Last Inspection:	1989-10-26
Recommended Penalty:	False
Meets Standard:	True
UST Involvement:	True
Remediation Phase:	0
Date Entered In Computer:	1989-09-15
Spill Record Last Update:	1989-12-08
Spiller Name:	Not reported
Spiller Company:	ROSWELL PARK
Spiller Address:	666 ELM STREET
Spiller County:	001
Spiller Contact:	Not reported
Spiller Phone:	Not reported
Spiller Extention:	Not reported
DEC Region:	9
DER Facility ID:	163129
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was MEL 09/14/89: MEL TELCON WITH DENNIS MAHN. TANK HAS BEEN EMPTIED, AND ARRANGEMENTS ARE BEING MADE TO REMOVE TANK FROM GROUND. 10/23/89: MEL TELCON WITH DON FRASER, OGS. TANKS ARE TO BE REMOVED ON 10/24/89. SENT LETTER OUTLINING REQUIREMENTS. 10/24/89: CAF INSPECTION. MET DON FRASER ON SITE. TWO 1000 GALLON TANKS REMOVED. NO PETROLEUM CONTAMINATED SOIL OBSERVED, PERMISSION TO BACKFILL GIVEN. ELMWOOD TANK TO CLEAN TANKS. 10/26/89: MEL INSPECTION. EXCAVATION BACKFILLED.ELMWOOD TANK ON SITE TO CLEAN TANKS. 11/20/89: MEL. NO CONTAMINATION OBSERVED, TANKS CLEANED BY ELMWOOD TANK. NO FURTHER ACTION NECESSARY, RECOMMEND FILE BE CLOSED AS PER RNL. "
Remarks:	"1000 GALLON TANK WAS TAKING ON WATER AND FAILED AN AIR PRESSURE TEST."

All Materials:

Site ID:	195812
Operable Unit ID:	930967
Operable Unit:	01
Material ID:	446178
Material Code:	0009
Material Name:	gasoline
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	.00
Units:	G
Recovered:	.00
Oxygenate:	Not reported

85
NE
1/4-1/2
0.373 mi.
1968 ft.

KALEIDA HEALTH
50 HIGH STREET
BUFFALO, NY

NY LTANKS
NY Spills

S108765520
N/A

Relative:
Higher

Actual:
662 ft.

LTANKS:

Facility ID:	0705382
Site ID:	385683
Closed Date:	2007-09-13
Spill Number:	0705382
Spill Date:	2007-08-10
Spill Cause:	Tank Failure
Spill Source:	Commercial/Industrial
Spill Class:	D3
Cleanup Ceased:	Not reported
SWIS:	1502
Investigator:	rmcrosse
Referred To:	DUPLICATE OF 0705383
Reported to Dept:	2007-08-10
CID:	76
Water Affected:	Not reported
Spill Notifier:	Other
Last Inspection:	2007-08-10
Recommended Penalty:	False
Meets Standard:	True
UST Involvement:	True
Remediation Phase:	0
Date Entered In Computer:	2007-08-10
Spill Record Last Update:	2007-09-13
Spiller Name:	DAVE HANNAHAK
Spiller Company:	US FOOD SERVICE
Spiller Address:	125 GARDENVILLE PKWY
Spiller County:	001
Spiller Contact:	LARRY SNYDER
Spiller Phone:	(716) 824-2245
Spiller Extention:	Not reported
DEC Region:	9
DER Facility ID:	335065
DEC Memo:	"DUPLICATE OF 0705383"
Remarks:	"25-30 GALLONS SPILL. IN PROCESS OF CONTAINMENT. FIRE DEPT O/S. "

All Materials:

Site ID:	385683
Operable Unit ID:	1142946
Operable Unit:	01
Material ID:	2133193
Material Code:	0008
Material Name:	diesel
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	30.00
Units:	G
Recovered:	.00
Oxygenate:	Not reported

SPILLS:

Facility ID:	1201711

KALEIDA HEALTH (Continued) **S108765520**

Facility Type:	ER
Spill Number:	1201711
DER Facility ID:	335065
Site ID:	464436
DEC Region:	9
Closed Date:	2012-08-24
Spill Cause:	Other
Spill Class:	C3
SWIS:	1502
Spill Date:	2012-05-01
Investigator:	jswalia
Referred To:	Not reported
Reported to Dept:	2012-05-15
CID:	Not reported
Water Affected:	Not reported
Spill Source:	Commercial/Industrial
Spill Notifier:	DEC
Cleanup Ceased:	Not reported
Cleanup Meets Std:	False
Last Inspection:	Not reported
Recommended Penalty:	False
UST Trust:	Not reported
Remediation Phase:	0
Date Entered In Computer:	2012-05-22
Spill Record Last Update:	2012-08-24
Spiller Name:	Not reported
Spiller Company:	Kaleida health
Spiller Address:	Not reported
Spiller Company:	999
Contact Name:	A. KRUGER
DEC Memo:	"05/22/12 JSW/File. As per request from C&S Companies (letter dated 5/15/2012), the spill # 9500234 was split into two spills. The spill #9500234 will pertain to the western portion of the block and would be addressed under the BCP site # C915260. The eastern portion of the block (830 Ellicott Street and 40 High Street) is the intended location of Kaleida s new WCHOB. The eastern portion of the block also known as 50 High Street would be the property of spill # 1201711. 08/24/12 JSW/File: This following reports and sampling data were reviewed: " Phase I Report, dated March 2011 and Phase II Investigation Report, dated August 2011, for 50 High Street property, both prepared by American Consulting Professionals " Site Monitoring Report for Spill # 9500234, dated March, 2012, prepared by Groundwater and Environmental Services " Soil Borings Results - April 2012, submitted by C&S Engineers. The results show exceedances of New York State groundwater standards for VOCs and phthalates in on-site monitoring wells. However, based upon site conditions represented in the above referenced documents, the Department will not require any further work at this time. The site will have a status of inactive . "
	Not reported
Remarks:	"another Spill for the eastern portion of the property covered under Spill #9500234 is being created to separate the two spill sites."

All Materials:

Site ID:	464436
Operable Unit ID:	1214488
Operable Unit:	01
Material ID:	2212534
Material Code:	0066A

KALEIDA HEALTH (Continued) **S108765520**

Material Name:	unknown petroleum
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	.00
Units:	G
Recovered:	.00
Oxygenate:	Not reported

86
SSW
1/4-1/2
0.380 mi.
2004 ft.

250 DELAWARE AVENUE SITE
250 DELAWARE AVENUE
BUFFALO, NY 14202

NY BROWNFIELDS **S112818547**
N/A

Relative:
Lower

Actual:
613 ft.

BROWNFIELDS:

Program:	BCP
Site Code:	476973
Acres:	1.948
HW Code:	C915271
SWIS:	1502
Town:	Buffalo (c)
Record Added Date:	12/20/2012
Record Updated Date:	12/24/2014
Update By:	SRHEIGEL
Site Description:	Location: The site is located at 250 Delaware Avenue in the City of Buffalo. The address for the BCP site parcel has been renumbered by the City to 250 Delaware Street. The site encompasses an area the length of a city block along the north side of West Chippewa Street extending from Delaware Avenue to South Elmwood Avenue. Site Features: The site is located in a highly developed urban area and is situated in a popular entertainment district. The site occupies approximately 1.96 acres in area on the north side of West Chippewa Street, and is bounded by South Elmwood Avenue to the west, Delaware Avenue to the east and commercial properties to the north. Local topography of the area is generally flat with a gentle slope toward the Buffalo River/Lake Erie typical of the Buffalo metro area. The site currently has no buildings, but steel framing and floor decking for a 12 story mixed use commercial use building has recently been completed. Current Zoning and Land Use: The site is zoned for commercial use in City of Buffalo Downtown Opportunity (DO) zone. Previous use and future use following redevelopment will be commercial. Past Use of the Site: The development history dates back to the late 1800s. The site and surrounding area was historically used for commercial and residential uses. The eastern portion of the site contained the Delaware Court building which was utilized as a mixed-use commercial building since its construction in 1925. An area behind the Delaware Court building used for surface parking was previously used for gasoline retail as early as the 1930s. Westward from the Delaware Court building, three residential structures occupied lots fronting Chippewa Street. These structures were eventually demolished. Two of the residential lots were subsequently used for surface parking. The remaining former residential lot at the corner of West Chippewa and South Elmwood was used as a retail gasoline filling station with a one story convenience store. The former residential lots and commercial use lots were eventually combined into a single parcel with the Delaware Court Building lot. Just north of this gasoline station, records show that the parking

250 DELAWARE AVENUE SITE (Continued) **S112818547**

lot area contained another gasoline filling station for a period of time. A tire service operation was present on-site from approximately 1931 and 1936, and a service station was identified on the project site from 1982 and 1987 suggesting historic on-site automotive repair operations. Municipal records indicate the installation and removal of several underground storage tanks on this side of the project site. North of the former gasoline station, a former commercial building occupied the area fronting South Elmwood. This building was demolished in the mid-2000s. Prior to demolition, a locksmith occupied the building. Records for this building indicate several uses including a paint shop and a pipe/hardware shop. In 2003, the site owner at that time entered into stipulation agreement with the NYSDEC to investigate and remediate a petroleum spill discovered at the site. A petroleum recovery system was installed in 2003 and was operated until 2004. Approximately 4,300 gallons of petroleum product was extracted from the impacted area. Measures to treat groundwater impacted with dissolved petroleum contamination were implemented by the site previous owner in 2004 and 2006. Ongoing monitoring indicated continued dissolved phase petroleum impacts to groundwater. The site owner sold the site to the BCP applicant in 2012 and the site was admitted to the BCP in early 2013. The BCP applicant demolished the gas station/convenience store during early summer 2013. The Delaware Court Building was demolished during winter 2013-2014. The site is currently being redeveloped with the construction of a 12 story mixed commercial use building in the area formerly occupied by the Delaware Court Building and a 4 story parking ramp. Site Geology/Hydrogeology: Overburden: Following the recent interim remedial measure (IRM), the surficial site geology has been altered. The surface and upper zone in the former parking lot area consists of crushed limestone backfill of varying thickness. The petroleum excavation area was backfilled with crushed limestone ranging in depth from 15 to 20 feet in depth, and historic fill area contains crushed limestone from 2 to 6 feet in depth. Below the crushed limestone fill layer, native soils consists of mostly a fine sand with some interbedded thin lenses of a silty/clayey soil ranging from 41 to 46 feet in depth. The sandy soil layer progressively becomes siltier moving northward along the site. The predominantly sandy soil is likely a part of a lake-laid sandy ridge deposit that is unique in this locality of the city. The soil beneath the basement of former Delaware Court Building consists of the fine sandy soil. Bedrock: Limestone bedrock varies from 41 to 46 feet below ground surface. Hydrogeology: Unconfined groundwater was encountered within the native soils and recent backfill at depths of approximately 10 to 12 feet below ground surface. Site groundwater flow gradient appears to flow in a south/southwest direction. Regional groundwater likely flows west/southwest toward Lake Erie and confluence of the Buffalo River.

Env Problem:

Pre IRM Remediation: Soil: Soil: Soil in the southwest section of the site was impacted by petroleum compounds significantly above unrestricted use levels. After several preceding remediation measures, the soil was still sufficiently contaminated to a depth of 15 to 18 feet below ground surface with petroleum such that it served as ongoing source of groundwater contamination from petroleum compounds and potential source of volatile petroleum compound soil vapors. The parking lot area of the site was underlain with impacted fill. The impacted fill was contaminated with several metals and semi-volatile organic compounds; however it did not pose an

250 DELAWARE AVENUE SITE (Continued) **S112818547**

environmental or human health concern as it was contained beneath an asphalt pavement and was not mobile. Groundwater: Previous efforts to remediate the petroleum spill did not effectively remediate the site from petroleum compounds. Ongoing monitoring indicated continued high levels of dissolved petroleum impacts to groundwater significantly above water quality standards. Groundwater quality was not impacted elsewhere on the site by petroleum compounds or other contaminants of concern. Soil Vapor: The soil vapor assessment indicated petroleum vapors in areas beyond the petroleum impacted area. No DOH vapor matrix contaminants exceeded matric levels. Post-IRM Remediation Soil: Verification sampling of bottom and sidewalls was implemented to ensure project cleanup goals were achieved. With the exception of one bottom sample, the concentrations of contaminants remaining in the native soils were less than the unrestricted use SCOs. The bottom sample (bottom no. 15) was situated in a deeper section (18 feet) of the petroleum excavation area adjacent to the sheet piling, where an excavation depth limitation restricted additional excavation depth along the sheet piling. The sample was marginally above the unrestricted level for xylene (1.75 ppm total xylene vs. the 0.260 ppm unrestricted use SCO), but well below the residential use SCO (100 ppm). There is no evidence of offsite migration of contaminants of concern. Groundwater: A nominal level of benzene (210 ppb in MW-8) remains in an area previously heavily contaminated with petroleum. With the bulk removal of petroleum impacted soils at the site, it is expected that the benzene residual will continue to decrease due to natural attenuation. There is no evidence of significant off-site migration of impacted groundwater. Soil Vapor: The bulk removal of petroleum impacted soil has removed the source of petroleum volatile compounds and vapor intrusion concerns.

Health Problem:	Remedial activities undertaken at the site have effectively reduced the potential for exposure to site-related contaminants in on-site areas. Some limited soil contamination exists at the property boundary but people are unlikely to contact it as it is at depth. People are not coming into contact with groundwater unless they dig greater than 10 feet below the ground surface. In addition, the City of Buffalo prohibits use of groundwater as a potable source and the area is served by a public water supply.
Dump:	False
Structure:	False
Lagoon:	False
Landfill:	False
Pond:	False
Disp Start:	Not reported
Disp Term:	Not reported
Lat/Long:	Not reported
Dell:	Not reported
Record Add:	12/20/2012 2:30:00 PM
Record Upd:	12/9/2014 9:13:00 AM
Updated By:	ewmelnyk
Own Op:	Applicant/Requestor
Sub Type:	P03
Owner Name:	Michael Montante
Owner Company:	DNC 250, Inc.
Owner Address:	100 Corporate Parkway
Owner Addr2:	Suite 500
Owner City,St,Zip:	Amherst, NY 14226
Owner Country:	United States of America

250 DELAWARE AVENUE SITE (Continued) **S112818547**

Own Op:	Document Repository
Sub Type:	NNN
Owner Name:	Not reported
Owner Company:	Buffalo & Erie County Public Library
Owner Address:	1 Lafayette Square
Owner Addr2:	Not reported
Owner City,St,Zip:	Buffalo, NY 14203
Owner Country:	United States of America
Own Op:	Owner
Sub Type:	E
Owner Name:	Michael J. Montante
Owner Company:	TCC Building R Associates L.P.
Owner Address:	100 Corporate Parkway, Suite 500
Owner Addr2:	Not reported
Owner City,St,Zip:	Amherst, NY 14226
Owner Country:	United States of America
HW Code:	C915271
Waste Type:	ETHYLBENZENE
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915271
Waste Type:	BENZO(A)PYRENE
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915271
Waste Type:	BENZO(A)PYRENE
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915271
Waste Type:	BENZO[K]FLUORANTHENE
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915271
Waste Type:	BENZO[K]FLUORANTHENE
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915271
Waste Type:	indeno(1,2,3-cd)pyrene
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915271
Waste Type:	indeno(1,2,3-cd)pyrene
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915271
Waste Type:	BENZ(A)ANTHRACENE
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915271
Waste Type:	LEAD
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915271
Waste Type:	LEAD
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915271

250 DELAWARE AVENUE SITE (Continued) **S112818547**

Waste Type:	Chrysene
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915271
Waste Type:	Chrysene
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915271
Waste Type:	CADMIUM
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915271
Waste Type:	CADMIUM
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915271
Waste Type:	METHYL-TERT-BUTYL ETHER (MTBE)
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915271
Waste Type:	METHYL-TERT-BUTYL ETHER (MTBE)
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915271
Waste Type:	BENZO(B)FLUORANTHENE
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915271
Waste Type:	BENZO(B)FLUORANTHENE
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915271
Waste Type:	BENZO(B)FLUORANTHENE
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915271
Waste Type:	BENZO(B)FLUORANTHENE
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915271
Waste Type:	DIBENZ[A,H]ANTHRACENE
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915271
Waste Type:	DIBENZ[A,H]ANTHRACENE
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915271
Waste Type:	N-PROPYLBENZENE
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915271
Waste Type:	TOLUENE
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915271
Waste Type:	1,3,5-Trimethylbenzene

250 DELAWARE AVENUE SITE (Continued) **S112818547**

Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915271
Waste Type:	NAPHTHALENE
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915271
Waste Type:	1,2,4-TRIMETHYLBENZENE
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915271
Waste Type:	XYLENE (MIXED)
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915271
Waste Type:	BENZENE
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
Crossref ID:	0175554
Cross Ref Type Code:	01
Cross Ref Type:	Spill No.
Record Added Date:	1/2/2013 9:53:00 AM
Record Updated:	1/2/2013 9:53:00 AM
Updated By:	SRHEIGEL
Crossref ID:	c915271
Cross Ref Type Code:	22
Cross Ref Type:	BCP Site ID
Record Added Date:	11/26/2014 3:16:00 PM
Record Updated:	11/26/2014 3:16:00 PM
Updated By:	ewmelnyk
Crossref ID:	C915271-03-13
Cross Ref Type Code:	23
Cross Ref Type:	Agreement/Consent Order Number
Record Added Date:	11/26/2014 3:20:00 PM
Record Updated:	11/26/2014 3:20:00 PM
Updated By:	ewmelnyk
Crossref ID:	9-489026
Cross Ref Type Code:	18
Cross Ref Type:	PBS No.
Record Added Date:	10/22/2013 9:34:00 AM
Record Updated:	10/22/2013 9:34:00 AM
Updated By:	aeskalsk

T87 **ROSWELL PARK** **NY LTANKS** **S108765897**
ENE **ELM AT CARLTON** **N/A**
1/4-1/2 **BUFFALO, NY**
0.392 mi.
2071 ft. **Site 1 of 5 in cluster T**

Relative:
Higher

Actual:
645 ft.

LTANKS:

Facility ID:	0750760
Site ID:	386342
Closed Date:	2007-11-15
Spill Number:	0750760
Spill Date:	2007-08-24
Spill Cause:	Tank Test Failure
Spill Source:	Institutional, Educational, Gov., Other
Spill Class:	B3

ROSWELL PARK (Continued) **S108765897**

Cleanup Ceased:	Not reported
SWIS:	1502
Investigator:	fxgalleg
Referred To:	Not reported
Reported to Dept:	2007-08-24
CID:	Not reported
Water Affected:	Not reported
Spill Notifier:	Other
Last Inspection:	Not reported
Recommended Penalty:	False
Meets Standard:	False
UST Involvement:	True
Remediation Phase:	0
Date Entered In Computer:	2007-08-24
Spill Record Last Update:	2007-11-15
Spiller Name:	Not reported
Spiller Company:	Not reported
Spiller Address:	Not reported
Spiller County:	Not reported
Spiller Contact:	ANTHONY PUTRELO
Spiller Phone:	(716) 845-8171
Spiller Extention:	Not reported
DEC Region:	9
DER Facility ID:	335727
DEC Memo:	"8/27/07 FG SPOKE TO TERRY WATERS WITH ROSWELL. HE SAID THAT ROSWELL IS GETTING A PRICE QUOTE TO RETEST THE UST'S ASAP. HE WILL PROVIDE THE RESULTS AS SOON AS HE GETS THEM. 10/10/07 FG SPOKE TO TERRI WATERS WITH ROSWELL AND HE SAID ELMWOOD CAME BACK OUT BECAUSE THEY RAN THE ORIGINAL TEST IMPROPERLY. THEY CAPPED THE WRONG VENT LINE. ROSWELL WILL SUBMIT THE PASSED TEST WITHIN THE NEXT TWO WEEKS. THEY DO NOT HAVE A FAILED TEST BECAUSE OF THE ERROR IN RUNNING THE ORIGINAL TEST. 11/15/07 FG SPOKE TO TERRY WATERS WITH ROSWELL. HE SAID THAT THE UST'S PASSED THE RETEST. PBS IS SCHEDULED TO COMPLETE AN INSPECTION NEXT WEEK AND HE WILL GIVE THE FAILED AND PASSED TESTS TO THE DEC REPRESENTATIVE AT THAT TIME. PBS WILL KEEP THE TESTS IN THEIR FILE. NO FURTHER WORK IS REQUIRED. THE SITE IS CLOSED. ELECTRONIC FILE ONLY."
Remarks:	"3 TEN K USTS FAILED TANK TEST. BELIEVE PROBLEM IS WITH THE VENT. TANKS FOR EMERGENCY GENERATORS. TANKS 126,123,122."

All Materials:

Site ID:	386342
Operable Unit ID:	1143582
Operable Unit:	01
Material ID:	2133853
Material Code:	0008
Material Name:	diesel
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	Not reported
Units:	G
Recovered:	Not reported
Oxygenate:	False

T88 **NYSDOH ROSWELL LOADING DK** **NY LTANKS** **S100494011**
ENE **ELM & CARLTON** **N/A**
1/4-1/2 **BUFFALO, NY**
0.392 mi.
2072 ft. **Site 2 of 5 in cluster T**

Relative: LTANKS:
Higher

Actual: Facility ID: 9206876
645 ft. Site ID: 289314
Closed Date: 1995-02-06
Spill Number: 9206876
Spill Date: 1992-09-10
Spill Cause: Tank Failure
Spill Source: Institutional, Educational, Gov., Other
Spill Class: C3
Cleanup Ceased: 1994-12-29
SWIS: 1502
Investigator: COOKE
Referred To: Not reported
Reported to Dept: 1992-09-10
CID: Not reported
Water Affected: Not reported
Spill Notifier: Citizen
Last Inspection: Not reported
Recommended Penalty: False
Meets Standard: False
UST Involvement: True
Remediation Phase: 0
Date Entered In Computer: 1992-09-24
Spill Record Last Update: 1995-02-08
Spiller Name: Not reported
Spiller Company: ROSWELL PARK CANCER INST.
Spiller Address: ELM & CARLTON
Spiller County: 001
Spiller Contact: Not reported
Spiller Phone: Not reported
Spiller Extention: Not reported
DEC Region: 9
DER Facility ID: 234282
DEC Memo: "Prior to Sept, 2004 data translation this spill Lead_DEC Field was JDC 10/07/92: RECEIVED OUTLINE FOR REMEDIATION PLAN THAT IS ACCEPTABLE. WILL HOLD UNTIL TESTING IS COMPLETE. 04/02/93: JDC/DENNIS MAHN, ROSWELL/TELECON - STATED REMEDIAL PLAN WAS FINE W/ THE FOLLOWING EXCEPTIONS: CONFIRM DISCHARGE TO SEWERS W/BSA FROM TREATMENT SYSTEM; POST SAMPLING SHOULD BE EPA METHOD 8021 DIRECT. 04/08/93: JDC CRITIQUED REMEDIATION PLAN; RAISED QUESTIONS IN 3 AREAS. WAITINGFOR RESPONSE FROM DENNIS MAHN. 04/23/93: JDC MET W/MR. MAHN AND VISITED LOADING DOCK AREA TO IDENTIFY AREAS OF CONCERN AS THEY RELATE TO REMEDIATION PROJECT. WORK EXPECTED TO BEGIN SOON. 08/18/93: JDC LEFT MESSAGE FOR MR. MAHN TO RETURN CALL REGARDING CURRENT REMEDIATION STATUS. 10/25/93: JDC/DON ABRAMS, EMPIRE SOILS/TELECON - EMPIRE HIRED TO DO REMEDIAL WORK. CARBON FILTRATION SYSTEM OPERATING SINCE 8/93. DISCHARGE WATER TO SANITARY SEWER UNDER BSA AUTHORITY. 12/30/93: JDC REVIEWED OCTOBER '93 MONTHLY MONITORING REPORT AND FOUND INFORMATION SATISFACTORY. CARBON FILTER PUMP AND TREAT SYSTEM PROVIDING SATISFACTORY REMEDIATION. 02/14/94: JDC REVIEWED HUNTINGDON'S ANALYTICAL REPORT DATED 1/94 AND FOUND NO SIGNIFICANT CHANGE IN PRETREATMENT CONCENTRATIONS. WILL CONTINUE TO MONITOR CURRENT RECOVERY. 04/20/94: JDC REVIEW MARCH MONITORING

NYSDOH ROSWELL LOADING DK (Continued) **S100494011**

REP[ORT AND FOUND DISCHARGE LIMITS BEING MET. WILL CONTINUE TO MONITOR REPORTS. 05/09/94: APRIL 94 REPORT, NO CHANGE SYSTEM OPERATION GOOD. BREAKTHROUGH BETWEEN FILTERS IN DEC. HAS BEEN CORRECTED. CONJTINUE TO MONITOR. 05/31/94: MAY REPORT CONTINUES TO SHOW GOOD FILTRATION, WILL CONTINUE TO MONITOR. 07/15/94: MAY REPORT CONTINUES TO SHOW GOOD FILTRATION, WILL CONTINUE TO MONITOR.
08/09/94: JDC ON SITE W/ K SHANAHAN, EMPIRE SOILS CONTAMINATED SOILS REMOVED FROM TANK AREA FOR DISPOSAL. COMPOSIT SOIL ANALYSIS FROM EXCAVATION TAKEN FOR CLEAN DETERMINATION. 11/28/94: JDC ON SITE AND OBSERVED TANK BEING FILLED W/ FLOWABLE FILL. SOIL SAMPLES COLLECTED THROUGH TANK WALL. 02/06/95: REVIEWD HUNTINGTO SITE REPORT AND FOUND SOILS ANALYSIS TO EXCEED GUIDANCE VALUES. SENT INACTIVE LETTER, NO FURTHER ACTION AT THIS TIME, ALL MW'S DESTROYED, SOURCE OF CONTAMINATION (SOIL) REMOVED. 02/06/95: REVIEWD HUNTINGTONS SITE REPORT AND FOUND SOILS ANALYSIS TO EXCEED GUIDANCE VALUES. SENT INACTIVE LETTER, NO FURTHER CLEANUP IS REQUIRED AT THIS TIME.
02/06/95: RECEIVED AND RESPONDED TO FOIL REQUEST BY SCOTT BURCHARD OF CIMINELLI COSTRUCTION.(SEE 2/6/95 REQUEST LETTER) FAXED SOIL ANALYSIS RESULTS. "

Remarks: "EMPIRE SOILS PERFORMING SOIL BORINGS. ONE BORING PRODUCED PETROLEUM ODORS. SPILLS 8905775 AND 8907884 INDICATE PREVIOUS TANK FAILURE."

All Materials:

Site ID:	289314
Operable Unit ID:	970663
Operable Unit:	01
Material ID:	407563
Material Code:	0009
Material Name:	gasoline
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	.00
Units:	Not reported
Recovered:	.00
Oxygenate:	Not reported

T89 **ROSWELL** **NY LTANKS S100495088**
ENE **ELM AND CARLTON ST** **NY Spills N/A**
1/4-1/2 **BUFFALO, NY**
0.392 mi.
2072 ft. **Site 3 of 5 in cluster T**

Relative: **Higher**
Actual: **645 ft.**

LTANKS:

Facility ID:	9301132
Site ID:	324081
Closed Date:	1993-08-18
Spill Number:	9301132
Spill Date:	1993-04-12
Spill Cause:	Tank Test Failure
Spill Source:	Commercial/Industrial
Spill Class:	D3
Cleanup Ceased:	1993-08-18
SWIS:	1502
Investigator:	COOKE
Referred To:	Not reported
Reported to Dept:	1993-04-12
CID:	Not reported

ROSWELL (Continued) **S100495088**

Water Affected:	Not reported
Spill Notifier:	Other
Last Inspection:	1993-06-10
Recommended Penalty:	False
Meets Standard:	True
UST Involvement:	False
Remediation Phase:	0
Date Entered In Computer:	1993-04-26
Spill Record Last Update:	1993-08-20
Spiller Name:	Not reported
Spiller Company:	ROSWELL PARK CANCER INST.
Spiller Address:	ELM AND CARLTON STREETS
Spiller County:	001
Spiller Contact:	Not reported
Spiller Phone:	Not reported
Spiller Extention:	Not reported
DEC Region:	9
DER Facility ID:	261055
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was JDC 04/12/93: SAC/WAYNE LESS, SLC/TELECON - TIGHTNESS TESTED 1K FIBERGLASS TANK FOR THE EMERGENCY GENERATOR. TANK FAILED TEST. TWO MONITORING WELLS ON SIDE OF TNAK. NO SIGN OF PRODUCT. 04/15/93: SAC/WAYNE LESS, SLC/TELECON - TANK #118 AT ROSWELL WAS ISOLATED & FAILED RETEST AT LEAK RATE OF -0.170 GPH. ROSWELL REP. MAKING ARRANGEMENTS FOR REMOVAL OF FUEL FROM TANK. 04/23/93: JDC/DENNIS MAHN, ROSWELL/SITE - INSPECTED AREA AROUND FAILED TANK. EXPLAINED REMEDIATION REQUIREMENTS AND DOCUMENTATION NEEDED. 06/10/93: JDC/J. KLOC/SITE - FOUND EXCAVATION FREE OF ANY VISIBLY CONTAMINATION. FIBERGLASS TANK CUT OPEN AND CLEANED OUT. SOIL COMPOSITE OF EXCAVATION TO BE ANALYZED UNDER 8270. 08/18/93: JDC REVIEWED SAMPLE DATA FROM EXCAVATION COMPOSITE AND FOUND RESULTS SATISFACTORY. NO FURTHER ACTION REQUIRED. "
Remarks:	"TANK FAILED INITIAL TEST. WILL BE ISOLATED FOR RETEST."

All TTF:

Facility ID:	9301132
Spill Number:	9301132
Spill Tank Test:	1541447
Site ID:	324081
Tank Number:	Not reported
Tank Size:	0
Material:	0001
EPA UST:	Not reported
UST:	Not reported
Cause:	Not reported
Source:	Not reported
Test Method:	00
Test Method 2:	Unknown
Leak Rate:	.00
Gross Fail:	Not reported
Modified By:	Spills
Last Modified Date:	Not reported

All Materials:

Site ID:	324081
Operable Unit ID:	983035
Operable Unit:	01

ROSWELL (Continued) **S100495088**

Material ID:	401859
Material Code:	0001A
Material Name:	#2 fuel oil
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	.00
Units:	G
Recovered:	.00
Oxygenate:	Not reported

SPILLS:

Facility ID:	1203400
Facility Type:	ER
Spill Number:	1203400
DER Facility ID:	420550
Site ID:	466212
DEC Region:	9
Closed Date:	2012-07-11
Spill Cause:	Equipment Failure
Spill Class:	D4
SWIS:	1502
Spill Date:	2012-07-09
Investigator:	FXGALLEG
Referred To:	Not reported
Reported to Dept:	2012-07-09
CID:	Not reported
Water Affected:	Not reported
Spill Source:	Institutional, Educational, Gov., Other
Spill Notifier:	Other
Cleanup Ceased:	Not reported
Cleanup Meets Std:	False
Last Inspection:	Not reported
Recommended Penalty:	False
UST Trust:	False
Remediation Phase:	0
Date Entered In Computer:	2012-07-09
Spill Record Last Update:	2012-07-11
Spiller Name:	Not reported
Spiller Company:	ROSWELL
Spiller Address:	Not reported
Spiller Company:	999
Contact Name:	JOE MOSLOW
DEC Memo:	"7/11/12 MINOR SPILL, CLEANED UP. NO FURTHER WORK REQUIRED. CLOSED ELECTRONIC FILE ONLY."
Remarks:	"clean up and repairs underway"

All Materials:

Site ID:	466212
Operable Unit ID:	1216219
Operable Unit:	01
Material ID:	2214385
Material Code:	0001A
Material Name:	#2 fuel oil
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	2.00

ROSWELL (Continued) **S100495088**

Units: G
Recovered: Not reported
Oxygenate: Not reported

T90 **NYSDOH ROSWELL PARK** **NY LTANKS** **S101103267**
ENE **ELM AND CARLTON STREETS** **N/A**
1/4-1/2 **BUFFALO, NY**
0.392 mi.
2072 ft. **Site 4 of 5 in cluster T**

Relative: **Higher**
Actual: **645 ft.**

LTANKS:

Facility ID:	9402510
Site ID:	324082
Closed Date:	1995-02-06
Spill Number:	9402510
Spill Date:	1994-05-18
Spill Cause:	Tank Failure
Spill Source:	Institutional, Educational, Gov., Other
Spill Class:	C3
Cleanup Ceased:	1995-01-30
SWIS:	1502
Investigator:	COOKE
Referred To:	Not reported
Reported to Dept:	1994-05-19
CID:	Not reported
Water Affected:	Not reported
Spill Notifier:	Responsible Party
Last Inspection:	1994-11-28
Recommended Penalty:	False
Meets Standard:	False
UST Involvement:	False
Remediation Phase:	0
Date Entered In Computer:	1994-05-24
Spill Record Last Update:	1995-02-10
Spiller Name:	Not reported
Spiller Company:	CITY OF BUFFALO
Spiller Address:	502 CITY HALL
Spiller County:	001
Spiller Contact:	Not reported
Spiller Phone:	Not reported
Spiller Extention:	Not reported
DEC Region:	9
DER Facility ID:	261055
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was JDC 05/19/94: JDC ON SITE AND FOUND EXCAVATION FILLED IN. TELCON W/ MS MAYNARD NYS DORM. AUTH. MAY BE CITY PROPERTY, SHE WILL INVESTIGATE. 05/19/94: JDC TELCON W/ MS KELLEY, DOH DISCUSSED DOH HAS NO FUNDS FOR TANK REMOVAL, THEY BELIEVE TANK BELONGS TO CITY OF BUFFALO. WILL SEND TANK REMOVAL LETTER DECLINING WORK AND RIGHT-OF-ENTRY TO MS KELLEY. 05/27/94: JDC SENT TANK REMOVAL LETTER TO DORMITORY AUTHORITY. CK BACK 6/30/94. 07/15/94: JDC TELCON W/ MS KELLEY, DECLINED TO SIGN ENTRY FORM, STATES PROPERTY BELONGS TO CITY ACCORDING TO SURVEY. DOH CONTACTED MIKE MURPHY, CITY OF BUFFALO AT 851-5636 TO DIFFER. WILL CONTACT MURPHY. 07/15/94: JDC TELCON W/ DAVE JAROS, CITY OF BFLO ENGINEER PUBLIC WORKS AT 851-5631. HE WILL FOLLOWUP WITH MURPHY AND CALL BACK ON MONDAY 7/18/94 TO DISCUSS REMOVAL REQUIREMENTS. 07/15/94: JDC TELCON W/ DAVE JAROS, CITY OF

NYSDOH ROSWELL PARK (Continued) **S101103267**

BFLO ENGINEER PUBLIC WORKS AT 851-5631. HE WILL FOLLOWUP WITH MURPHY AND CALL BACK ON MONDAY 7/18/94 TO DISCUSS TANK REMOVAL REQUIREMENTS. 07/20/94: RECEIVED LETTER FROM MS KELLEY, DOH SHOWING SITE DRAWING OF TANK ON CITY PROPERTY. JDC TELCON W/ MIKE MURPHY, CITY ENGINEER AND ADVISED HIM OF TANK REMOVAL REQUIREMENTS. CITY TO RESPONDE THIS WEEK. 07/27/94: JDC TELCON W/ MIKE MURPHY, CITY OWNS PROPERTY, WILL SEND STANDARD REMOVAL LETTER. CK BK 8/24/94. 10/25/94: JDC TELCON W/ JOHN DAY, CITY OF BFLO, ELMWOOD TANK HIRED TO DO TANK REMOVAL AT ROSEWELL. WORK TO BEGIN NEXT WEEK , REQUESTED ADVANCED NOTICE TO DO SITE INSPECTION. 11/23/94: JDC TELCON W/ DICK SIEFER, ELMWOOD TK. TANK WILL BE ABANDONED IN PLACE DUE TO UTILITIES IN THE AREA. WORK TO BEGIN 11/28/94. 02/06/95: RECIEVED TANK PIT SAMPLE RESULTS AND FOUND MINOR VIOLATIONS WITH METHOD 8270. WILL MAKE FILE INACTIVE, NO FURTHER ACTION AT THIS TIME. 11/28/95: JDC ON SITE AND OBSERVED BACKFILL OF TANK BY ELMWOOD TANK. SOIL SAMPLES COLLECTED THROUGH TANK SIDE WALL, CONCRETE PAD PREVENTED THROUGH THE BOTTOM SAMPLING. "

Remarks: "BELOW GROUND TANK FOUND DURING GAS LINE EXCAVATION."

All Materials:

Site ID:	324082
Operable Unit ID:	999629
Operable Unit:	01
Material ID:	382702
Material Code:	0066A
Material Name:	unknown petroleum
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	.00
Units:	G
Recovered:	.00
Oxygenate:	Not reported

91
North
1/4-1/2
0.399 mi.
2108 ft.

KULBACK CONSTRUCTION **NY LTANKS** **S101174723**
DELAWARE AT NORTH **N/A**
BUFFALO, NY

Relative:
Higher

Actual:
666 ft.

LTANKS:

Facility ID:	9403219
Site ID:	221515
Closed Date:	1994-10-04
Spill Number:	9403219
Spill Date:	1994-06-01
Spill Cause:	Tank Failure
Spill Source:	Commercial/Industrial
Spill Class:	E6
Cleanup Ceased:	1994-10-04
SWIS:	1502
Investigator:	RMCROSSE
Referred To:	Not reported
Reported to Dept:	1994-06-02
CID:	Not reported
Water Affected:	Not reported
Spill Notifier:	Responsible Party
Last Inspection:	1994-06-13
Recommended Penalty:	False

KULBACK CONSTRUCTION (Continued) **S101174723**

Meets Standard:	True
UST Involvement:	False
Remediation Phase:	0
Date Entered In Computer:	1994-06-06
Spill Record Last Update:	1994-10-07
Spiller Name:	Not reported
Spiller Company:	KULBACK CONSTRUCTION
Spiller Address:	6363 TRANSIT ROAD
Spiller County:	001
Spiller Contact:	Not reported
Spiller Phone:	Not reported
Spiller Extention:	Not reported
DEC Region:	9
DER Facility ID:	183195
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was RMC 06/13/94: RMC/BRAD MEYERS/SITE TANK ,8K, REMOVED, NO VISUAL CONTAMINATION FOUND, BUFFALO DRILLING TOOK SAMPLES, RESULTS DUE 7/15/94. 07/22/94: RMC/RESULTS LETTER, RESPONSE DUE 8/1/94. 10/04/94: RMC/RECEIVED TEST RESULTS, NO EXCEEDANCE, NO INDICATION OF SPILL ASSOCIATED W/ THIS TANK, CLOSE OUT. "
Remarks:	"FOUND 1000 GALLON TANK WHILE EXCAVATING FOR BUILDING"

All Materials:

Site ID:	221515
Operable Unit ID:	997012
Operable Unit:	01
Material ID:	570081
Material Code:	0001A
Material Name:	#2 fuel oil
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	.00
Units:	G
Recovered:	.00
Oxygenate:	Not reported

92
SSW
1/4-1/2
0.406 mi.
2142 ft.

SKYDEC CORP. **NY LTANKS** **S103941309**
251 FRANKLIN STREET **N/A**
BUFFALO, NY

Relative:
Lower

Actual:
614 ft.

LTANKS:

Facility ID:	9975175
Site ID:	63148
Closed Date:	1999-08-30
Spill Number:	9975175
Spill Date:	1999-06-07
Spill Cause:	Tank Failure
Spill Source:	Commercial/Industrial
Spill Class:	C3
Cleanup Ceased:	Not reported
SWIS:	1502
Investigator:	JFOTTO
Referred To:	Not reported
Reported to Dept:	1999-06-07
CID:	Not reported

SKYDEC CORP. (Continued) **S103941309**

Water Affected:	Not reported
Spill Notifier:	Responsible Party
Last Inspection:	1999-06-08
Recommended Penalty:	False
Meets Standard:	True
UST Involvement:	False
Remediation Phase:	0
Date Entered In Computer:	1999-06-07
Spill Record Last Update:	2000-06-05
Spiller Name:	BOB KNOER
Spiller Company:	SKYDEC CORP.
Spiller Address:	251 FRANKLIN STREET
Spiller County:	001
Spiller Contact:	Not reported
Spiller Phone:	Not reported
Spiller Extention:	Not reported
DEC Region:	9
DER Facility ID:	61076
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was JFO 06/07/99: JFO ON SITE, MET PROPERTY OWNER AND BOB KNOER (ATTY). THEY CONTACTED ELMWOOD TANK TO EMPTY TANKS. TANKS WILL BE REMOVED SOON, THEY WILL CONTACT ME. 06/07/99: JFO TELECON FROM BOB KNOER. TANKS WILL BE REMOVED TOMORROW, JUNE 8, I WILL VISIT SITE THEN 06/08/99: JFO ON SITE, MET OPERATOR FROM DOUBLE D EXCAVATING, OWNER KARL AND TECHNICIAN FROM MATRIX. TWO 2,000 GALLON GASOLINE TANKS REMOVED, SAND BACKFILL WAS USED TO INSTALL TANKS. NO VISUAL CONTAMINATION OR ODOR IN PITS. TWO SAMPLES TAKEN FROM BELOW TANK BOTTOMS TO CONFIRM CLEAN PITS. ANALYZE FOR STARS METHOD 8021. RESULTS TO FOLLOW. THEY WILL GET A QUICK TURNAROUND ON SAMPLES, IF RESULTS ARE OK THEY WILL THEN BACKFILL. 08/20/99: JFO TELECON TO BOB KNOER. LEFT MESSAGE WITH SECRETARY FOR HIM TO FAX SAMPLE RESULTS 08/23/99: JFO RECEIVED SAMPLE RESULTS ALL NON-DETECT. 08/26/99 JFO RECEIVED DISPOSAL RECEIPTS. NO FURTHER ACTION REQUIRED. CLOSED."
Remarks:	"WHILE EXCAVATING TO REPLACE PAVEMENT IN PARKING LOT, PETROLEUM ODORS NOTED IN AREA OF KNOWN CLOSED UST'S."

All Materials:

Site ID:	63148
Operable Unit ID:	1091322
Operable Unit:	01
Material ID:	291690
Material Code:	0066A
Material Name:	unknown petroleum
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	.00
Units:	G
Recovered:	.00
Oxygenate:	Not reported

T93 **UST @ ROSWELL PRKG GARAGE** **NY LTANKS** **S108299349**
ENE **CARLTON STREET** **N/A**
1/4-1/2 **BUFFALO, NY**
0.407 mi.
2151 ft. **Site 5 of 5 in cluster T**

Relative: **Higher**
Actual: **642 ft.**

LTANKS:

Facility ID:	0651376
Site ID:	372445
Closed Date:	2007-05-15
Spill Number:	0651376
Spill Date:	2006-10-24
Spill Cause:	Tank Failure
Spill Source:	Institutional, Educational, Gov., Other
Spill Class:	B3
Cleanup Ceased:	Not reported
SWIS:	1502
Investigator:	CGMCKENZ
Referred To:	Not reported
Reported to Dept:	2006-10-24
CID:	Not reported
Water Affected:	Not reported
Spill Notifier:	Local Agency
Last Inspection:	Not reported
Recommended Penalty:	False
Meets Standard:	False
UST Involvement:	True
Remediation Phase:	0
Date Entered In Computer:	2006-10-24
Spill Record Last Update:	2007-07-27
Spiller Name:	DAN CRUISE
Spiller Company:	CITY OF BUFFALO DPW
Spiller Address:	CITY HALL
Spiller County:	001
Spiller Contact:	JOE MOSLOW
Spiller Phone:	(716) 845-3874
Spiller Extention:	Not reported
DEC Region:	9
DER Facility ID:	326823
DEC Memo:	"10/24/6 SAC NOTIFIES PBS-BG THAT REGISTRATION OF TANK REQUIRED. 10/26/6 ON SITE W/ JOE, STEVE AND ANTHONY. UST TANK TOP UNCOVERED. MANHOLE OPENED, COULD SEE TANK WAS CLOSED IN PLACE W/SLURRY. MINOR FLUID W/STRONG PETROLEUM ODOR INSIDE. AREA FENCED FOR PROTECTION. THEY WILL CONTINUE W/UTILITY INSTALLATION. FEELS TANK BELONGS TO CITY SINCE TANK SITS INSIDE ROW. REQUESTED ABSTRACT/ DOCUMENTS REGARDING DISCOVERY OF TANK. 10/27/6 Nothing found in Sanborn search for tank history. Call PBS contacts, need updating. Requested SPCC plan identifying all tank locations. Called Buff Fire Dept on tank closures for this area. Joe Moslow researching records to see when Roswell knew of tank existence, when it was closed, by whom and if site assessment exists. 10/30/6 Ken-Buff Fire Dept (851-5707 x756) states nothing on file for Carlton, Michigan, Elm or old alley that was removed to build the parking garage. 11/3/6 City of Buff s contractor/Tom Forbes, Benchmark (864-1730) will do what has to be done w/tank. 11/16/6 Joe states City owns ROW where UST is. T/C with Darin Muglestein (843-5896) and Dennis Sutton. 11/17/6 MOSLOW FAXED URS TANK LOCATION MAP. 11/29/6 T/C W/JOE, RE RESEARCH FINDINGS? 11/30/6 TOM FORBES/ BENCHMARK FOR DAN KRUIZ OF CITY STATES THEY ARE PREPARED TO REMOVE TANK IF NO DATA IS LOCATED. 12/1/6 JOE FOUND

UST @ ROSWELL PRKG GARAGE (Continued) **S108299349**

ABSTRACT, WAS A VACANT LOT IN 1964. MOSLOW FAXED TITLE INSURANCE ABSTRACT SHOWING OWNERSHIP HISTORY OF TANK LOCATION/ PROPERTY. 12/4/6 TOM FORBES BIDDING OUT REMOVAL OF UST. NO DATA FOUND AT CITY. 12/6/6 MOSLOW FAXED 5/20/94 LTR FROOM LEHRER MCGOVERN BOVIS INC/ RUSSELL PROGRAM MANAGEMENT STATING UST WAS DISCOVERED. CONTAMINATED SOIL FOUND W/ PETROLEUM ODORS. LTR STATES NFG LOCATED TANK DURING GAS LINE INSTALLATION. CONTACTED NFG TO SEE WHAT INFORMATION THEY HAD ON TANK AND END RESULT OF CONTAMINATED SOILS REMOVED AT THAT TIME. NYSOGS CALLED TO RESEARCH FOR SITE ASSESSMENT PAPERS. DOH CALLED TO LOCATE SITE ASSESSMENT INFO. ALL FOUR AGENCIES HAVE NO INFORMATION. CALL CITY FIRE DEPARTMENT AND DPW FOR ASSESSMENT INFO/ REGISTRATION OF TANK. KURT KRUMPA/OGS A CONTACT REGARDING INFO ON UST CLOSURE IN 90s. REFERRED TO MARTIN DEPAULO (518-473-9369). 12/8/6 LIER-MCGOVERN-BOGUS LTR STATES PREVIOUS OWNER DOH CONTRACTED CONDENSATE LINE PRIOR TO ROSWELL OWNERSHIP. OGS FOUND TANK, WORKED AROUND IT. ROBERT GREY-DOH STATED NATIONAL FUEL FOUND TANK, CONTAMINATED SOIL FOUND/STAGED. T/C W/MARTY OGS TO FOLLOWUP ON DATA THEY HAVE. CGM T/C W/JOE FOUND ABSTRACT, BACKUP TANK IDENTIFIED FROM LETTER RE: UTILITY INSTALLATION PROJECT IN MAY 1994. 12/18/6 TOM FORBES FOR CITY, ROSWELL NOR FIRE DEPARTMENT CAN FIND ANY INFO DESPITE DIRECTION FROM LETTER PROVIDED BY ROSWELL. MARTY DIPAULO RE: PROJECT NUMBER FOR 1994. 12/19/6 TANYA ALEXANDER, NATIONAL FUEL GAS REGARDING CARLTON TANK WORK. 2/9/7 FORBES/BENCHMARK WAITING ON DEC FINDING INFO FROM ROSWELL REGARDING TANK. HOPEFULLY SOMETHING WILL COME UP. CITY WILL DO WHAT MUST BE DONE. KEEP THEM POSTED. LEFT MESSAGE FOR DAN CRUISE OF CITY. LEFT MSG FOR UPDATE FROM MOSLOW. 2/12/7 MIKE TURRI, URS (856-5636) CALLED REGARDING MAP MOSLOW SENT OVER SHOWING TANK LOCATION. ONCE TANK UNCOVERED DURING CONDENSATE LINE INSTALLATION, JOE REQUESTED MAP SURVEY OF ITS LOCATION. 2/13/7 MOSLOW FOUND AND RESUBMITTED 1994 LETTER TO SAL CALANDRA FROM MS. KELLEY OF ROSWELL RELATED TO SPILL REPORTS #9402510 AND #9206876. BOTH SHOW EXISTENCE OF TANK OWNED BY CITY OF BUFFALO DUE TO LOCATION WITHIN ROW. CITY HIRED ELMWOOD TANK AND PIPE TO CLOSE IN PLACE. SITE ASSESSMENT SHOWED EXCEEDANCES AND THOSE SPILLS MADE INACTIVE. DUE TO LOW LEVEL EXCEEDANCES, INACCESSIBILITY OF TANK DUE TO SEVERAL UTILITIES SURROUNDING/TOUCHING TANK, DEPARTMENT STANCE REMAINS THE SAME; IF CITY WISHES TO, THEY MAY REMOVE BUT NOT REQUIRED TO DO SO. MOSLOW CONFIRMS PBS APPL UPDATED W/ CORRECT CONTACTS AND MISSING TANK INFORMATION. 5/14/7 INACTIVE CLOSURE LETTER SUBMITTED TO ROSWELL COPIED TO CITY OF BUFFALO AND THEIR CONTRACTOR-BENCHMARK. NO FURTHER ACTION REQUIRED AT THIS TIME. SHOULD THE CONTAMINATION BE EXPOSED IN THE FUTURE, SPILL WILL BE REOPENED, REMEDIATION MAY BE REQUIRED. "

Remarks: "WHILE INSTALLING A CONDENSATE RETURN LINE, AN UNKNOWN ABANDONED UST WAS FOUND WITH WHAT APPEARS TO BE PETROEUM CONTAMINATION AROUND IT. TANK IS BETWEEN THE CURB AND THE SIDEWALK. DANFORTH IS DOING WORK FOR THE STEAMLINE. THEY ARE INTERVIEWING TONAWANDA TANK AND ELMWOOD TANK REGARDING REMOVAL OF THE TANK."

All Materials:

Site ID:	372445
Operable Unit ID:	1130185
Operable Unit:	01
Material ID:	2119855
Material Code:	0008
Material Name:	diesel
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	Not reported

UST @ ROSWELL PRKG GARAGE (Continued) **S108299349**

Units: G
Recovered: Not reported
Oxygenate: Not reported

94
NW
1/4-1/2
0.409 mi.
2159 ft.

473 EAST DELAVAN INC
161 ELMWOOD AVE
BUFFALO, NY 14201

NY LTANKS **U003316983**
NY UST **N/A**

Relative:
Higher

Actual:
649 ft.

LTANKS:

Facility ID:	8606289
Site ID:	185355
Closed Date:	1988-10-05
Spill Number:	8606289
Spill Date:	1987-01-09
Spill Cause:	Tank Failure
Spill Source:	Gasoline Station or other PBS Facility
Spill Class:	Not reported
Cleanup Ceased:	1988-10-05
SWIS:	1502
Investigator:	COOKE
Referred To:	Not reported
Reported to Dept:	1987-01-09
CID:	Not reported
Water Affected:	Not reported
Spill Notifier:	Citizen
Last Inspection:	1988-05-31
Recommended Penalty:	False
Meets Standard:	True
UST Involvement:	True
Remediation Phase:	0
Date Entered In Computer:	1987-01-12
Spill Record Last Update:	2000-08-24
Spiller Name:	Not reported
Spiller Company:	473 EAST DELEVAN INC.
Spiller Address:	58 CAROL LANE
Spiller County:	001
Spiller Contact:	Not reported
Spiller Phone:	Not reported
Spiller Extention:	Not reported
DEC Region:	9
DER Facility ID:	155023
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was JDC / / : RECIEVED INVENTORY AND FOUND THE UNLEADED AND REGULAR TANKS DEMSTRATING SUBSTANTIAL PRODUCT LOSS. FORWARDED LETTER REQUESTING TANK TESTING. / / : JDC MET W/ BILL PYE, JOSEPH DAVIS MECH CONTRACTOR TO LOCATE WELL(S) 1/28/88. TANK LOCATION UNKNOWN, NEW MEETING WILL BE SET UP. / / : TELECON 01/09/87, MOTORISTS GETTING WATER IN GAS TANKS, COMPLAINT RECEIVED. / / : TELECON 01/15/87, W/ PAM (CLERICAL STAFF) OF DELAVAN INC. REQUESTED INVENTORY RECORDS FOR MTH OF 12/86 AND 01/01-15/87 BE SENT FOR REVIEW. / / : PRODUCT AND DISPENCERS REMOVED. OWNER REQUESTED A DELAY ON TANK REMOVAL UNTIL CONDITIONS OF SALE ARE UNDERSTOOD. OWNER WILL NOTIFY. / / : PREVIOUS OFFERS FELL THRU, SENT LETTER REQUESTING TANKS BE TESTED OR REMOVED. LETTER SENT 04/01/87. / / : LETTER 11/17/87, TANKS TEST 12/87. / / : LETTER 04/01/87, REPLY 04/30/87 - OK, TANKS REGISTERED. / / : JDC TELCON W/ PATTI BRAUER

473 EAST DELAVAN INC (Continued) **U003316983**

10/09/87 - REQUESTED DISPOSITION LETTER BY END OF WEEK 10/12/87. / / : JDC RECEIVED DISPOSITION LETTER 10/20/87 - WILL HOLD ANY DEC ACTION UNTIL END OF DECEMBER OF 87' AS WRITTER REQUESTED. / / : JDC TELCON W/ PATTIE, E DELAVAN CORP, 6/22/87 REQUESTED WRITTEN COMMITTMENT ONTANK STATUS BY 7/2/87. / / : JDC TELCON W/ PATTI BRAUER, DELAVAN CORP 10/09/87 - JDC REQUESTED DISPOSITION LETTERTATUS BY 7/2/87. 02/23/88: JDC VISITED SITE AND FOUND NO PETROLEUM CONTAMINATE IN MONITORING WELL RELATIVE TO VISIABLE PRODUCT. 03/02/88: JDC TELCON WITH BILL PYE, JOSEPH DAVIS CO. - RELATED FINDINGS OF 2/23/88. MR PYE STATED THAT SOIL AND WATER SAMPLES WERE BEING ANALYZED FOR PETROLEUM. RESULTS WILL BE FORWARDED. 04/07/88: JDC TELCON W/ MR PYE, JOSEPH DAVIS CO - MORE TIME IS NEEDED TO OBTAIN AN ANSWER FROM PILOT TRUCKING RELATIVE TO TANK PULL. EXPECTING AN ANSWER WK OF 4/11/88. 05/13/88: RECIEVED LETTER FROM BILL PYE STATING THAT TANKS WILL BE REMOVED BY MARSHALL TANK WEEK OF 5/9/88. 05/31/88: LQR ON SITE TO INSPECT TANK REMOVAL. CONTAMINATION IDENTIFIED FOR REMONVAL. WILL WAIT ON DISPOSAL AND LAB ANALYSIS RECIEPTS BEFORE CLOSING. 08/24/88: JDC CONTACTED JOSEPH DAVIS CO AND REQUESTED DISPOSAL RECEIPTS OF MR BILL PYE. 09/26/88: JDC FORWARDED LETTER TO JOSEPH DAVIS REQUESTING DISPOSAL RECIEPTS. 10/05/88: JDC RECIEVED DISPOSAL DOCUEMENTATION AS REQUESTED. ALL SENT INFORMATION IS COMPLETE. NO FURTHER ACTION WILL BE REQUIRED. "

Remarks: "ALLEDGED LEAKING TANKS"

All Materials:

Site ID:	185355
Operable Unit ID:	903702
Operable Unit:	01
Material ID:	475421
Material Code:	0009
Material Name:	gasoline
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	.00
Units:	G
Recovered:	.00
Oxygenate:	Not reported

UST:

Id/Status:	9-125237 / Unregulated/Closed
Program Type:	PBS
Region:	STATE
DEC Region:	9
Expiration Date:	N/A
UTM X:	183458.90716
UTM Y:	4757156.00822
Site Type:	Retail Gasoline Sales

Affiliation Records:

Site Id:	52845
Affiliation Type:	Facility Owner
Company Name:	473 EAST DELAVAN INC
Contact Type:	Not reported
Contact Name:	Not reported
Address1:	58 CAROL LANE
Address2:	Not reported
City:	GRAND ISLAND

473 EAST DELAVAN INC (Continued) **U003316983**

State: NY
Zip Code: 14072
Country Code: 001
Phone: (716) 773-1872
EMail: Not reported
Fax Number: Not reported
Modified By: TRANSLAT
Date Last Modified: 2004-03-04

Site Id: 52845
Affiliation Type: Mail Contact
Company Name: 473 EAST DELAVAN INC
Contact Type: Not reported
Contact Name: Not reported
Address1: 58 CAROL LANE
Address2: Not reported
City: GRAND ISLAND
State: NY
Zip Code: 14072
Country Code: 001
Phone: (716) 773-1872
EMail: Not reported
Fax Number: Not reported
Modified By: TRANSLAT
Date Last Modified: 2004-03-04

Site Id: 52845
Affiliation Type: Facility Operator
Company Name: 473 EAST DELAVAN INC
Contact Type: Not reported
Contact Name: 473 EAST DELAVAN INC
Address1: Not reported
Address2: Not reported
City: Not reported
State: NN
Zip Code: Not reported
Country Code: 001
Phone: (716) 773-1872
EMail: Not reported
Fax Number: Not reported
Modified By: TRANSLAT
Date Last Modified: 2004-03-04

Site Id: 52845
Affiliation Type: Emergency Contact
Company Name: 473 EAST DELAVAN INC
Contact Type: Not reported
Contact Name: JAMES BREIER
Address1: Not reported
Address2: Not reported
City: Not reported
State: NN
Zip Code: Not reported
Country Code: 001
Phone: (716) 773-1872
EMail: Not reported
Fax Number: Not reported

473 EAST DELAVAN INC (Continued) **U003316983**

Modified By: TRANSLAT
Date Last Modified: 2004-03-04

Tank Info:

Tank Number: 001
Tank ID: 169435
Tank Status: Closed - Removed
Material Name: Closed - Removed
Capacity Gallons: 4000
Install Date: 01/01/1982
Date Tank Closed: 08/01/1987
Registered: True
Tank Location: Underground
Tank Type: Z
Material Code: 0009
Common Name of Substance: Gasoline

Tightness Test Method: NN
Date Test: Not reported
Next Test Date: Not reported
Pipe Model: Not reported
Modified By: TRANSLAT
Last Modified: 04/14/2017

Equipment Records:

F06 - Pipe External Protection - Wrapped
J02 - Dispenser - Suction Dispenser
G04 - Tank Secondary Containment - Double-Walled (Underground)
I00 - Overfill - None
B00 - Tank External Protection - None
C00 - Pipe Location - No Piping
A00 - Tank Internal Protection - None
D01 - Pipe Type - Steel/Carbon Steel/Iron
H99 - Tank Leak Detection - Other

Tank Number: 002
Tank ID: 169436
Tank Status: Closed - Removed
Material Name: Closed - Removed
Capacity Gallons: 4000
Install Date: 01/01/1982
Date Tank Closed: 08/01/1987
Registered: True
Tank Location: Underground
Tank Type: Z
Material Code: 0009
Common Name of Substance: Gasoline

Tightness Test Method: NN
Date Test: Not reported
Next Test Date: Not reported
Pipe Model: Not reported
Modified By: TRANSLAT
Last Modified: 04/14/2017

473 EAST DELAVAN INC (Continued) **U003316983**

Equipment Records:

B00 - Tank External Protection - None
C00 - Pipe Location - No Piping
F06 - Pipe External Protection - Wrapped
J02 - Dispenser - Suction Dispenser
G04 - Tank Secondary Containment - Double-Walled (Underground)
A00 - Tank Internal Protection - None
D01 - Pipe Type - Steel/Carbon Steel/Iron
I00 - Overfill - None
H99 - Tank Leak Detection - Other

Tank Number:	003
Tank ID:	169437
Tank Status:	Closed - Removed
Material Name:	Closed - Removed
Capacity Gallons:	4000
Install Date:	01/01/1982
Date Tank Closed:	08/01/1987
Registered:	True
Tank Location:	Underground
Tank Type:	Z
Material Code:	0009
Common Name of Substance:	Gasoline
Tightness Test Method:	NN
Date Test:	Not reported
Next Test Date:	Not reported
Pipe Model:	Not reported
Modified By:	TRANSLAT
Last Modified:	04/14/2017

Equipment Records:

G04 - Tank Secondary Containment - Double-Walled (Underground)
J02 - Dispenser - Suction Dispenser
F06 - Pipe External Protection - Wrapped
B00 - Tank External Protection - None
C00 - Pipe Location - No Piping
I00 - Overfill - None
A00 - Tank Internal Protection - None
D01 - Pipe Type - Steel/Carbon Steel/Iron
H99 - Tank Leak Detection - Other

U95 **WESTBROOK 675 DELAWARE** **NY LTANKS** **S100781976**
North **675 DELAWARE AVENUE** **N/A**
1/4-1/2 **BUFFALO, NY**
0.416 mi.
2196 ft. **Site 1 of 2 in cluster U**

Relative:
Higher

Actual:
670 ft.

LTANKS:

Facility ID:	9308986
Site ID:	213036
Closed Date:	1994-04-20
Spill Number:	9308986
Spill Date:	1993-10-21
Spill Cause:	Tank Failure
Spill Source:	Private Dwelling
Spill Class:	B3

WESTBROOK 675 DELAWARE (Continued) **S100781976**

Cleanup Ceased:	1994-02-08
SWIS:	1502
Investigator:	RMCROSSE
Referred To:	Not reported
Reported to Dept:	1993-10-21
CID:	Not reported
Water Affected:	Not reported
Spill Notifier:	Other
Last Inspection:	1993-12-01
Recommended Penalty:	False
Meets Standard:	True
UST Involvement:	False
Remediation Phase:	0
Date Entered In Computer:	1993-10-26
Spill Record Last Update:	1994-04-21
Spiller Name:	Not reported
Spiller Company:	NIAGARA ASSET CORP.
Spiller Address:	60 LAKEFRONT BLVD.
Spiller County:	001
Spiller Contact:	Not reported
Spiller Phone:	Not reported
Spiller Extention:	Not reported
DEC Region:	9
DER Facility ID:	176488
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was RMC 10/22/93: RMC/JOE KLOC/SITE - 6K #6 OIL TANK; PLANNED TO CLOSE IN PLACE. ONCE CLEANED, OIL RAN INTO BOTTOM FROM OUTSIDE. REMOVAL PROBLEMATIC DUE TO BUILDING. REQUESTED WORK PLAN AND SCHEDULE BY 11/15/93. 11/01/93: RMC/RECEIVED WRITTEN WOK PLAN, OK. HOWEVER PLAN ALTERED TO COMPLETE REMOVAL, DUE TO AMOUNT OF CONTAMINATION FOUND, REMOVAL DUE 12/1/93. 12/01/93: RMC/FILE/SITE MET HITCHCOCK ON SITE, DATE UNKNOWN, TANK REMOVED, VERY MINOR CONTAMINATION NOTED AT NORTH END, 1 YARD TO REMOVE, DISPOSAL AND TESTING DUE 1/30/94. 03/07/94: RMC/NFC/PHONE TO FAX DISPOSAL AND ANALYITICAL. DUE 3/21/94. 03/10/94: RMC/RECEIVED SAMPLING RESULTS, NO EXCEEDANCES, DISPOSAL DUE 4/1/94. 04/20/94: RMC/RECEIVED DISPOSAL RECEIPT, OK SPILL COMPLETE, CLOSE OUT. "
Remarks:	"CONTAMINATED SOIL DISCOVERED DURING REMOVAL OF 6K UST"

All Materials:

Site ID:	213036
Operable Unit ID:	990522
Operable Unit:	01
Material ID:	391662
Material Code:	0003A
Material Name:	#6 fuel oil
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	.00
Units:	Not reported
Recovered:	.00
Oxygenate:	Not reported

V96 **GULF SERVICE STATION #176476** **NY LTANKS** **1004760126**
NNE **1038 MAIN ST** **NY Spills** **NYR000033134**
1/4-1/2 **BUFFALO, NY 14202** **RCRA NonGen / NLR**
0.425 mi. **FINDS**
2242 ft. **Site 1 of 4 in cluster V** **ECHO**
NY MANIFEST

Relative:
Higher

Actual:
657 ft.

LTANKS:

Facility ID:	8803956
Site ID:	71678
Closed Date:	1988-08-08
Spill Number:	8803956
Spill Date:	1988-08-04
Spill Cause:	Tank Overfill
Spill Source:	Gasoline Station or other PBS Facility
Spill Class:	C3
Cleanup Ceased:	1988-08-08
SWIS:	1502
Investigator:	LEARY
Referred To:	Not reported
Reported to Dept:	1988-08-04
CID:	Not reported
Water Affected:	Not reported
Spill Notifier:	Citizen
Last Inspection:	1988-08-04
Recommended Penalty:	False
Meets Standard:	True
UST Involvement:	True
Remediation Phase:	0
Date Entered In Computer:	1988-08-30
Spill Record Last Update:	2000-07-26
Spiller Name:	Not reported
Spiller Company:	ARG TRUCKING
Spiller Address:	122 COOPER AVENUE
Spiller County:	001
Spiller Contact:	Not reported
Spiller Phone:	Not reported
Spiller Extention:	Not reported
DEC Region:	9
DER Facility ID:	67798
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was RNL 08/04/88: RNL SITE INSP., GASOLINE SPILLED AND FLUSHED BY BUFFALO FD, FURTHER CLEANUP NOT POSSIBLE, SPILLER MADE NO ATTEMPT TO CLEANUP. 08/08/88: RNL LETTER 08/08/88 TO SPILLER, REQUIRES CLEANUP FOR FUTURE SPILLS. "
Remarks:	"OVERFILLED TANK"

All Materials:

Site ID:	71678
Operable Unit ID:	921125
Operable Unit:	01
Material ID:	459476
Material Code:	0009
Material Name:	gasoline
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	50.00
Units:	G
Recovered:	25.00
Oxygenate:	Not reported

GULF SERVICE STATION #176476 (Continued) **1004760126**

SPILLS:

Facility ID:	9311640
Facility Type:	ER
Spill Number:	9311640
DER Facility ID:	67798
Site ID:	71679
DEC Region:	9
Closed Date:	1994-07-01
Spill Cause:	Unknown
Spill Class:	D5
SWIS:	1502
Spill Date:	1993-12-30
Investigator:	SORGI
Referred To:	Not reported
Reported to Dept:	1993-12-30
CID:	Not reported
Water Affected:	Not reported
Spill Source:	Gasoline Station or other PBS Facility
Spill Notifier:	Other
Cleanup Ceased:	1994-07-01
Cleanup Meets Std:	True
Last Inspection:	Not reported
Recommended Penalty:	False
UST Trust:	False
Remediation Phase:	0
Date Entered In Computer:	1993-12-30
Spill Record Last Update:	2000-09-28
Spiller Name:	Not reported
Spiller Company:	CUMBERLAND FARMS/GULF
Spiller Address:	777 DEDHAM STREET
Spiller Company:	001
Contact Name:	Not reported
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was MJS 02/14/94: LETTER TO RP REQUESTING SUBSURFACE INVESTIGATION REPORT. 02/23/94: MJS/KEVIN MCCABE, CUMBERLAND FARMS/TELECON - HE STATES THAT NO FREE PRODUCT WAS FOUND IN BORINGS. HE WILL FORWARD A LETTER TO THAT EFFECT AND ANY FIELD DATA HE CAN OBTAIN. 04/06/94: MJS RECEIVED BORING LOGS AND SITE MAP FROM CONSULTANT. GW AT APPROX. 25' BELOW GRADE. LOW P.I.D. READINGS IN BORINGS #2, #3 JUST ABOVE WATER TABLE. 04/07/94: MJS SENT LETTER TO RP ADVISING THAT DEC REQUIRES GROUNDWATER SAMPLING. 06/01/94: RECEIVED REPORT FROM GES INC. NO BTEX FOUND IN WELLS. LEAD FOUND ABOVE GW STANDARDS. NO FURTHER ACTION BY SPILL UNIT REQUIRED. COPY OF REPORT TO BE PASSED ON TO DOW FOR FOLLOWUP ON LEAD PROBLEM. 07/01/94: RECEIVED REPORT FROM GES INC. NO BTEX FOUND IN WELLS. LEAD FOUND ABOVE GW STANDARDS. NO FURTHER ACTION BY SPILL UNIT REQUIRED. COPY OF REPORT TO BE PASSED ON TO DOW FOR FOLLOWUP ON LEAD PROBLEM. "
Remarks:	"SOIL SAMPLING FOUND LEAD, NO BTEX"

All Materials:

Site ID:	71679
Operable Unit ID:	993656
Operable Unit:	01
Material ID:	390666
Material Code:	0009
Material Name:	gasoline
Case No.:	Not reported

GULF SERVICE STATION #176476 (Continued) **1004760126**

Material FA:	Petroleum
Quantity:	.00
Units:	L
Recovered:	.00
Oxygenate:	Not reported
Facility ID:	9613078
Facility Type:	ER
Spill Number:	9613078
DER Facility ID:	67798
Site ID:	71680
DEC Region:	9
Closed Date:	1997-03-17
Spill Cause:	Equipment Failure
Spill Class:	C3
SWIS:	1502
Spill Date:	1997-02-04
Investigator:	COOKE
Referred To:	Not reported
Reported to Dept:	1997-02-04
CID:	351
Water Affected:	Not reported
Spill Source:	Gasoline Station or other PBS Facility
Spill Notifier:	Tank Tester
Cleanup Ceased:	1997-03-14
Cleanup Meets Std:	True
Last Inspection:	1997-02-07
Recommended Penalty:	False
UST Trust:	True
Remediation Phase:	0
Date Entered In Computer:	1997-02-04
Spill Record Last Update:	1997-04-24
Spiller Name:	BILL LOVELY
Spiller Company:	CUMBERLAND FARMS
Spiller Address:	727 DEDHAM STREET
Spiller Company:	001
Contact Name:	Not reported
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was JDC 2/4/97: JDC ON SITE AND MET W/ BOB DRABOT, GES MINOR CONTAMINATION TO SERVICE ISLAND AREA ALONG MAIN STREET. NO FREE PRODUCT WAS OBSERVED IN ISLAND EXCAVATION. SOILS REMOVED AND STAGED ALONG BUILDING FOR DISPOSAL. 2/7/97: JDC ON SITE AND OBSERVED EXCAVATION ON WEST SIDE OF BUILDING WHERE WASTE OIL TANK WAS DISCOVERD FULL OF WASTE OILS. SAFETY CLEAN HIRED TO REMOVE WASTE OILS. CONTAMINATED SOILS WILL BE DISPOSED OF SEPARATELY. 3/17/97: REVIEWED CLOSURE REPORT AND FOUND POST TEST AND DISPOSAL INFORMATION SATISFACTORY. POST TEST INDICATED NO VIOLATIONS OF STARS, SITE WILL BE CLOSED, SENT LETTER STATING SAME. "
Remarks:	"2 - 8K TANKS BEING REMOVED BY NATURE'S WAY BY CUMBERLAND THROUGH GESERVICES SOIL CONTAMINATION FOUND UNDER SERVICE ISLAND ALONG MAIN STREET SIDE. NO FREE PRODUCT FOUND. SPILL FAXED FROM REGION 9 ON 02/04/97"

All Materials:

Site ID:	71680
Operable Unit ID:	1040734
Operable Unit:	01

GULF SERVICE STATION #176476 (Continued) **1004760126**

Material ID: 566737
Material Code: 0009
Material Name: gasoline
Case No.: Not reported
Material FA: Petroleum
Quantity: .00
Units: G
Recovered: .00
Oxygenate: Not reported

RCRA NonGen / NLR:
Date form received by agency: 01/01/2007
Facility name: GULF SERVICE STATION #176476
Facility address: 1038 MAIN ST
BUFFALO, NY 14202
EPA ID: NYR000033134
Mailing address: DEDHAM ST
CANTON, NY 02021-9118
Contact: WILLIAM LOVELY
Contact address: DEDHAM ST
CANTON, NY 02021-9118
Contact country: US
Contact telephone: 617-828-4900
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: CUMBERLAND FARMS INC
Owner/operator address: 777 DEDHAM ST
CANTON, MA 02021
Owner/operator country: US
Owner/operator telephone: 617-828-4900
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: CUMBERLAND FARMS INC
Owner/operator address: 777 DEDHAM ST
CANTON, MA 02021
Owner/operator country: US
Owner/operator telephone: 617-828-4900
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

GULF SERVICE STATION #176476 (Continued) **1004760126**

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
Site name: GULF SERVICE STATION #176476
Classification: Not a generator, verified

Date form received by agency: 03/04/1998
Site name: GULF SERVICE STATION #176476
Classification: Large Quantity Generator

Date form received by agency: 12/12/1996
Site name: GULF SERVICE STATION #176476
Classification: Conditionally Exempt Small Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D018
. Waste name: BENZENE

Violation Status: No violations found

FINDS:

Registry ID: 110000893034

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.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1004760126

GULF SERVICE STATION #176476 (Continued) **1004760126**

Registry ID: 110000893034
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110000893034

NY MANIFEST:
Country: USA
EPA ID: NYR000033134
Facility Status: Not reported
Location Address 1: 1038 MAIN ST
Code: BP
Location Address 2: Not reported
Total Tanks: Not reported
Location City: BUFFALO
Location State: NY
Location Zip: 14210
Location Zip 4: Not reported

NY MANIFEST:
EPAID: NYR000033134
Mailing Name: CUMBERLAND FARMS
Mailing Contact: MICHAEL DONNELLY
Mailing Address 1: 777 DHEM
Mailing Address 2: Not reported
Mailing City: CANTON
Mailing State: MA
Mailing Zip: 02021
Mailing Zip 4: Not reported
Mailing Country: USA
Mailing Phone: 8002259702

NY MANIFEST:
Document ID: NYB7147908
Manifest Status: C
seq: Not reported
Year: 1997
Trans1 State ID: OH100
Trans2 State ID: Not reported
Generator Ship Date: 02/26/1997
Trans1 Recv Date: 02/26/1997
Trans2 Recv Date: / /
TSD Site Recv Date: 02/27/1997
Part A Recv Date: 03/20/1997
Part B Recv Date: 03/12/1997
Generator EPA ID: NYR000033134
Trans1 EPA ID: OHD004178612
Trans2 EPA ID: Not reported
TSDF ID 1: OHD004178612
TSDF ID 2: Not reported
Manifest Tracking Number: Not reported
Import Indicator: Not reported
Export Indicator: Not reported
Discr Quantity Indicator: Not reported
Discr Type Indicator: Not reported
Discr Residue Indicator: Not reported
Discr Partial Reject Indicator: Not reported
Discr Full Reject Indicator: Not reported
Manifest Ref Number: Not reported
Alt Facility RCRA ID: Not reported

GULF SERVICE STATION #176476 (Continued) **1004760126**

Alt Facility Sign Date:	Not reported
MGMT Method Type Code:	Not reported
Waste Code:	D001 - NON-LISTED IGNITABLE WASTES
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Quantity:	00110
Units:	G - Gallons (liquids only)* (8.3 pounds)
Number of Containers:	002
Container Type:	DM - Metal drums, barrels
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	100
Waste Code:	D001 - NON-LISTED IGNITABLE WASTES
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Quantity:	00110
Units:	G - Gallons (liquids only)* (8.3 pounds)
Number of Containers:	002
Container Type:	DM - Metal drums, barrels
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	100
Waste Code:	D001 - NON-LISTED IGNITABLE WASTES
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Quantity:	00110
Units:	G - Gallons (liquids only)* (8.3 pounds)
Number of Containers:	002
Container Type:	DM - Metal drums, barrels
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	100
Waste Code:	D001 - NON-LISTED IGNITABLE WASTES
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Quantity:	00055
Units:	G - Gallons (liquids only)* (8.3 pounds)
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	100

Click this hyperlink while viewing on your computer to access additional NY_MANIFEST: detail in the EDR Site Report.

V97 **19 NORTH STREET** **NY BROWNFIELDS** **S118628306**
NNE **19 NORTH STREET** **N/A**
1/4-1/2 **BUFFALO, NY 14202**
0.437 mi.
2305 ft. **Site 2 of 4 in cluster V**

Relative: **Higher**

Actual: **659 ft.**

BROWNFIELDS:

Program:	BCP
Site Code:	521040
Acres:	0.5
HW Code:	C915303
SWIS:	1502
Town:	Buffalo (c)
Record Added Date:	01/21/2016
Record Updated Date:	08/07/2017
Update By:	BXPUTZIG
Site Description:	Location: The proposed BCP Site is located in the City of Buffalo at the intersection of North Pearl Street and North Street, adjacent to the Buffalo Niagara Medical Campus. Site Features: The Site is vacant with a small parking area in the eastern portion of the Site. The Site fronts to North Street. Current Zoning and Land Use: The Site is currently zoned as general commercial district and classified as a commercial land use. The surrounding parcels are a mix of commercial, residential and transit station zoning districts. Surrounding parcels are also a mix of commercial, residential and community service land uses. Past Use of the Site: The Phase I ESA indicated that the BCP Site was occupied by residential dwellings. By 1951, the residence at 23 North Street had become a radio station. By 1981, the residence at 19 North Street had been removed and replaced with a radio tower. In 2014 the residence at 23 North Street was demolished and the basement area backfilled. Urban fill has been historically used throughout Buffalo to bring properties to grade during excavation and construction. Site Geology and Hydrogeology: The Site contains fill consisting of sand and gravel, clay, brick, concrete and traces of coal. Fill thickness ranges up to 13 feet. The fill is underlain by brown silty clay and silty sand. Groundwater was observed during site investigations to be approximately 16 - 24 feet below grade.
Env Problem:	Soil and groundwater were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, polychlorinated biphenyls (PCBs) and pesticides. Based upon the investigations performed to date, the primary contaminants include polycyclic aromatic hydrocarbons (PAHs) and lead in soil.
Health Problem:	The western portion of the site is completely fenced, restricting public access. However, people who enter may come into contact with contaminants in soil by walking on the site, digging, or otherwise disturbing the soil. The eastern portion of the site is paved. People will not come into contact with contaminated soil since it is covered with pavement.
Dump:	False
Structure:	False
Lagoon:	False
Landfill:	False
Pond:	False
Disp Start:	Not reported
Disp Term:	Not reported
Lat/Long:	Not reported
Dell:	Not reported
Record Add:	6/8/2016 12:29:00 PM
Record Upd:	1/23/2017 12:38:00 PM

19 NORTH STREET (Continued) **S118628306**

Updated By:	MJCRUDEN
Own Op:	Document Repository
Sub Type:	NNN
Owner Name:	Carol Ann Batt
Owner Company:	Buffalo & Erie County Public Library -
Owner Address:	1 Lafayette Square
Owner Addr2:	Not reported
Owner City,St,Zip:	Buffalo, NY 14203
Owner Country:	United States of America
Own Op:	Owner
Sub Type:	P02
Owner Name:	Benjamin Obletz
Owner Company:	23 North Street LLC
Owner Address:	4508 Main Street
Owner Addr2:	Not reported
Owner City,St,Zip:	Amherst, NY 14226
Owner Country:	United States of America
Own Op:	Applicant/Requestor
Sub Type:	P02
Owner Name:	Benjamin Obletz
Owner Company:	23 North Street LLC
Owner Address:	4508 Main Street
Owner Addr2:	Not reported
Owner City,St,Zip:	Amherst, NY 14226
Owner Country:	United States of America
HW Code:	Not reported
Waste Type:	Not reported
Waste Quantity:	Not reported
Waste Code:	Not reported
Crossref ID:	Not reported
Cross Ref Type Code:	Not reported
Cross Ref Type:	Not reported
Record Added Date:	Not reported
Record Updated:	Not reported
Updated By:	Not reported

V98 **A.R.G. TRUCKING CO.** **NY LTANKS** **S103038059**
NNE **MAIN AND NORTH ST.** **N/A**
1/4-1/2 **BUFFALO, NY**
0.438 mi.
2310 ft. **Site 3 of 4 in cluster V**

Relative: **Higher**

Actual: **656 ft.**

LTANKS:

Facility ID:	8607168
Site ID:	193501
Closed Date:	1987-02-24
Spill Number:	8607168
Spill Date:	1987-02-24
Spill Cause:	Tank Overfill
Spill Source:	Tank Truck
Spill Class:	Not reported
Cleanup Ceased:	1987-02-24
SWIS:	1502
Investigator:	ROSS
Referred To:	Not reported
Reported to Dept:	1987-02-24
CID:	Not reported
Water Affected:	Not reported

A.R.G. TRUCKING CO. (Continued) **S103038059**

Spill Notifier:	Responsible Party
Last Inspection:	Not reported
Recommended Penalty:	False
Meets Standard:	True
UST Involvement:	False
Remediation Phase:	0
Date Entered In Computer:	2003-12-02
Spill Record Last Update:	2003-12-02
Spiller Name:	Not reported
Spiller Company:	A.R.G. TRUCKING CO.
Spiller Address:	Not reported
Spiller County:	001
Spiller Contact:	Not reported
Spiller Phone:	Not reported
Spiller Extention:	Not reported
DEC Region:	9
DER Facility ID:	161329
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was LQR / / : F.D. FLSHED TO SEWER. "
Remarks:	"SPILL OCCURED AND NSI GAS STATION"

All Materials:

Site ID:	193501
Operable Unit ID:	903852
Operable Unit:	01
Material ID:	472690
Material Code:	0009
Material Name:	gasoline
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	30.00
Units:	G
Recovered:	.00
Oxygenate:	Not reported

V99 **NIRELLI'S GULF STATION** **NY LTANKS** **S100117551**
NNE **1038 MAIN & NORTH** **N/A**
1/4-1/2 **BUFFALO, NY**
0.447 mi.
2359 ft. **Site 4 of 4 in cluster V**

Relative: **Higher**
Actual: **654 ft.**

LTANKS:

Facility ID:	8808014
Site ID:	168845
Closed Date:	1989-10-02
Spill Number:	8808014
Spill Date:	1989-01-03
Spill Cause:	Tank Failure
Spill Source:	Gasoline Station or other PBS Facility
Spill Class:	Not reported
Cleanup Ceased:	1989-10-02
SWIS:	1502
Investigator:	PRINGLE
Referred To:	Not reported
Reported to Dept:	1989-01-05
CID:	Not reported
Water Affected:	Not reported

NIRELLI'S GULF STATION (Continued) **S100117551**

Spill Notifier:	Affected Persons
Last Inspection:	1989-06-08
Recommended Penalty:	False
Meets Standard:	True
UST Involvement:	True
Remediation Phase:	0
Date Entered In Computer:	1989-01-10
Spill Record Last Update:	1989-10-05
Spiller Name:	Not reported
Spiller Company:	CUMBERLAND FARMS
Spiller Address:	777 DEDHAM
Spiller County:	001
Spiller Contact:	Not reported
Spiller Phone:	Not reported
Spiller Extention:	Not reported
DEC Region:	9
DER Facility ID:	142195
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was MNP 01/05/89: 1/5/89 MNP INSP. GASOLINE FUMES FOUND IN BASEMENT, GULF STATION TO TEST TANKS & EXCAVATE INTERCEPTION TRENCH TO STOP FUMES FROM ENTERING BUILDING. 10/02/89: 10/2/89 MNP REVIEW OF FILE, CLEANUP & DISPOSAL SATISFACTORY, COMPLETE. "
Remarks:	"LEAK AT GAS STATION CAUSED FUMES TO ENTER BASEMENT OF BRYANT & STRATTON SCHOOL"

All TTF:

Facility ID:	8808014
Spill Number:	8808014
Spill Tank Test:	1535058
Site ID:	168845
Tank Number:	Not reported
Tank Size:	0
Material:	0009
EPA UST:	Not reported
UST:	Not reported
Cause:	Not reported
Source:	Not reported
Test Method:	00
Test Method 2:	Unknown
Leak Rate:	.00
Gross Fail:	Not reported
Modified By:	Spills
Last Modified Date:	Not reported

All Materials:

Site ID:	168845
Operable Unit ID:	923499
Operable Unit:	01
Material ID:	559496
Material Code:	0009
Material Name:	gasoline
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	.00
Units:	G
Recovered:	.00
Oxygenate:	Not reported

100
NE
1/4-1/2
0.450 mi.
2375 ft.

Relative:
Higher

Actual:
663 ft.

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH
100 HIGH ST
BUFFALO, NY 14203

Database(s): RCRA-LQG, NY LTANKS, NY AST, NY Spills, ICIS, US AIRS, FINDS, ECHO, NY AIRS, NY MANIFEST, NJ MANIFEST

EDR ID Number: 1000105471
EPA ID Number: NYD074042292

RCRA-LQG:

Date form received by agency:	02/23/2016
Facility name:	BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH
Facility address:	100 HIGH ST BUFFALO, NY 14203
EPA ID:	NYD074042292
Mailing address:	HIGH ST BUFFALO, NY 14203
Contact:	TIMOTHY R BATT
Contact address:	HIGH ST BUFFALO, NY 14203
Contact country:	US
Contact telephone:	716-859-2715
Contact email:	TBATT@KALEIDAHEALTH.ORG
EPA Region:	02
Land type:	Private
Classification:	Large Quantity Generator
Description:	Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg 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; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; 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 more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name:	KALEIDA HEALTH
Owner/operator address:	EXCHANGE ST BUFFALO, NY 14203
Owner/operator country:	US
Owner/operator telephone:	716-859-2715
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	01/01/2001
Owner/Op end date:	Not reported

Owner/operator name:	KALEIDA HEALTH
Owner/operator address:	EXCHANGE ST BUFFALO, NY 14203

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Owner/operator country: US
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 01/01/2001
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: Yes
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

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D009
. Waste name: MERCURY

. Waste code: D011
. Waste name: SILVER

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: U002
. Waste name: 2-PROPANONE (I) (OR) ACETONE (I)

. Waste code: U010
. Waste name: AZIRINO [2',3':3,4]PYRROLO[1,2-A]INDOLE-4,7-DIONE, 6-AMINO-8-[[(AMINOCARBONYL)OXY]METHYL]-1,1A,2,8,8A,8B-HEXAHYDRO-8A-MET HOXY-5-METHYL-, [1AS-(1AALPHA, 8BETA, 8AALPHA, 8BALPHA)]- (OR) MITOMYCIN C

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

. Waste code: U015
. Waste name: AZASERINE (OR) L-SERINE, DIAZOACETATE (ESTER)

. Waste code: U034
. Waste name: ACETALDEHYDE, TRICHLORO- (OR) CHLORAL

. Waste code: U035
. Waste name: BENZENEBUTANOIC ACID, 4-[BIS(2-CHLOROETHYL)AMINO]- (OR) CHLORAMBUCIL

. Waste code: U080
. Waste name: METHANE, DICHLORO- (OR) METHYLENE CHLORIDE

. Waste code: U129
. Waste name: CYCLOHEXANE, 1,2,3,4,5,6-HEXACHLORO-, (1ALPHA, 2ALPHA, 3BETA, 4ALPHA, 5ALPHA, 6BETA)- (OR) LINDANE

. Waste code: U154
. Waste name: METHANOL (I) (OR) METHYL ALCOHOL (I)

. Waste code: U165
. Waste name: NAPHTHALENE

Historical Generators:
Date form received by agency: 01/31/2014
Site name: BUFFALO GENERAL MEDICAL CTR - KALEIDA HEALTH
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D009
. Waste name: MERCURY

. Waste code: D011
. Waste name: SILVER

. Waste code: D018
. Waste name: BENZENE

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: P105
. Waste name: SODIUM AZIDE

. Waste code: U002
. Waste name: 2-PROPANONE (I) (OR) ACETONE (I)

. Waste code: U010
. Waste name: AZIRINO [2',3':3,4]PYRROLO[1,2-A]INDOLE-4,7-DIONE, 6-AMINO-8-[[(AMINOCARBONYL)OXY]METHYL]-1,1A,2,8,8A,8B-HEXAHYDRO-8A-METHOXY-5-METHYL-, [1AS-(1AALPHA, 8BETA, 8AALPHA, 8BALPHA)]- (OR) MITOMYCIN C

. Waste code: U015
. Waste name: AZASERINE (OR) L-SERINE, DIAZOACETATE (ESTER)

. Waste code: U034
. Waste name: ACETALDEHYDE, TRICHLORO- (OR) CHLORAL

. Waste code: U035
. Waste name: BENZENEBUTANOIC ACID, 4-[BIS(2-CHLOROETHYL)AMINO]- (OR) CHLORAMBUCIL

. Waste code: U080
. Waste name: METHANE, DICHLORO- (OR) METHYLENE CHLORIDE

. Waste code: U123
. Waste name: FORMIC ACID (C,T)

. Waste code: U129
. Waste name: CYCLOHEXANE, 1,2,3,4,5,6-HEXACHLORO-, (1ALPHA, 2ALPHA, 3BETA, 4ALPHA, 5ALPHA, 6BETA)- (OR) LINDANE

. Waste code: U154
. Waste name: METHANOL (I) (OR) METHYL ALCOHOL (I)

. Waste code: U155
. Waste name: 1,2-ETHANEDIAMINE, N,N-DIMETHYL-N'-2-PYRIDINYL-N'-(2-THIENYLMETHYL)- (OR) METHAPYRILENE

. Waste code: U165
. Waste name: NAPHTHALENE

. Waste code: U188
. Waste name: PHENOL

Date form received by agency: 01/01/2007
Site name: BUFFALO GENERAL HOSPITAL THE
Classification: Small Quantity Generator

Date form received by agency: 01/01/2006

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Site name: BUFFALO GENERAL HOSPITAL THE
Classification: Small Quantity Generator

Date form received by agency: 01/01/2001
Site name: BUFFALO GENERAL HOSPITAL
Classification: Large Quantity Generator

Date form received by agency: 07/14/1999
Site name: BUFFALO GENERAL HOSPITAL THE
Classification: Small Quantity Generator

Date form received by agency: 01/31/1996
Site name: THE BUFFALO GENERAL HOSPITAL
Classification: Large Quantity Generator

Date form received by agency: 12/11/1984
Site name: BUFFALO GENERAL HOSPITAL THE
Classification: Large Quantity Generator

. Waste code: D000
. Waste name: Not Defined

. Waste code: X002
. Waste name: POLYCHLORINATED BIPHENOLS (PCBs)

Biennial Reports:

Last Biennial Reporting Year: 2017

Annual Waste Handled:
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.
Amount (Lbs): 31871

Waste code: D009
Waste name: MERCURY
Amount (Lbs): 20

Waste code: D011
Waste name: SILVER
Amount (Lbs): 3190

Waste code: F003
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

MIXTURES.
Amount (Lbs): 26396

Waste code: U002
Waste name: ACETONE (I)
Amount (Lbs): 5475

Waste code: U010
Waste name: AZIRINO[2',3':3,4]PYRROLO[1,2-A]INDOLE-4,7-DIONE, 6-AMINO-8-[[(AMINOCARBONYL)OXY]METHYL]-1,1A,2,8,8A,8B-HEXAHYDRO-8A-METHOXY-5-METHYL-, [1AS-(1AALPHA, 8BETA,8AALPHA,8BALPHA)]-
Amount (Lbs): 5475

Waste code: U015
Waste name: AZASERINE
Amount (Lbs): 5475

Waste code: U034
Waste name: ACETALDEHYDE, TRICHLORO-
Amount (Lbs): 5475

Waste code: U035
Waste name: BENZENEBUTANOIC ACID, 4-[BIS(2-CHLOROETHYL)AMINO]-
Amount (Lbs): 5475

Waste code: U080
Waste name: METHANE, DICHLORO-
Amount (Lbs): 5475

Waste code: U129
Waste name: CYCLOHEXANE, 1,2,3,4,5,6-HEXACHLORO-, (1ALPHA,2ALPHA,3BETA,4ALPHA,5ALPHA,6BETA)-
Amount (Lbs): 5475

Waste code: U154
Waste name: METHANOL (I)
Amount (Lbs): 5475

Waste code: U165
Waste name: NAPHTHALENE
Amount (Lbs): 5475

Facility Has Received Notices of Violations:
Regulation violated: Not reported
Area of violation: Generators - Pre-transport
Date violation determined: 09/13/2016
Date achieved compliance: 10/14/2016
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 09/16/2016
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Pre-transport
Date violation determined: 08/28/2014
Date achieved compliance: 10/06/2014
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 09/08/2014
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Container Use and Management
Date violation determined: 08/28/2014
Date achieved compliance: 10/06/2014
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 09/08/2014
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: State Statute or Regulation
Date violation determined: 08/28/2014
Date achieved compliance: 10/06/2014
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 09/08/2014
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Universal Waste - Small Quantity Handlers
Date violation determined: 08/28/2014
Date achieved compliance: 10/06/2014
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 09/08/2014
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 06/19/1995
Date achieved compliance: 06/23/1995
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 06/19/1995
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:

Evaluation date: 09/13/2016
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Pre-transport
Date achieved compliance: 10/14/2016
Evaluation lead agency: State

Evaluation date: 08/28/2014
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Universal Waste - Small Quantity Handlers
Date achieved compliance: 10/06/2014
Evaluation lead agency: State

Evaluation date: 08/28/2014
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: State Statute or Regulation
Date achieved compliance: 10/06/2014
Evaluation lead agency: State

Evaluation date: 08/28/2014
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Pre-transport
Date achieved compliance: 10/06/2014
Evaluation lead agency: State

Evaluation date: 08/28/2014
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD IS-Container Use and Management
Date achieved compliance: 10/06/2014
Evaluation lead agency: State

Evaluation date: 11/03/2011
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/01/2005
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Evaluation date: 08/27/2003
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: EPA

Evaluation date: 07/02/2003
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 01/15/2002
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/08/1995
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 06/23/1995
Evaluation lead agency: State

Evaluation date: 11/01/1986
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

LTANKS:
Facility ID: 0075587
Site ID: 138918
Closed Date: 2001-02-27
Spill Number: 0075587
Spill Date: 2001-01-30
Spill Cause: Tank Overfill
Spill Source: Institutional, Educational, Gov., Other
Spill Class: C3
Cleanup Ceased: Not reported
SWIS: 1502
Investigator: FXGALLEG
Referred To: Not reported
Reported to Dept: 2001-01-30
CID: Not reported
Water Affected: Not reported
Spill Notifier: Responsible Party
Last Inspection: 2001-01-30
Recommended Penalty: False
Meets Standard: True
UST Involvement: False
Remediation Phase: 0
Date Entered In Computer: 2001-01-30
Spill Record Last Update: 2002-03-12
Spiller Name: LARRY HEANEY
Spiller Company: BUFFALO GENERAL HOSPITAL
Spiller Address: 100 HIGH STREET
Spiller County: 001

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Spiller Contact:	LARRY HEANEY
Spiller Phone:	(716) 859-2613
Spiller Extention:	Not reported
DEC Region:	9
DER Facility ID:	118777
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was FG 01/30/01: FG SITE INSPECTION. BUFFALO GENERAL WAS CLEANING UP SPILL WHEN I ARRIVED. IT WAS RAINING AND THEY HAD BUILT A DAM TO PREVENT THE SHEEN OFF THE PARKING LOT FROM ENTERING THE STORM DRAIN. THE CAUSE OF THE SPILL IS AN OVERFILL INTO CONTAINMENT. APPROXIMATELY 1 GALLON SPILLED OUT OF THE SECONDARY CONTAINMENT ONTO THE PARKING LOT. BUFFALO GENERAL HIRED THE ENVIRONMENTAL SERVICE GROUP TO COMPLETE THE CLEANUP AND DISPOSAL OF THE SPILLED MATERIAL. THEY WILL PUMP THE PRODUCT OUT OF THE SECONDARY CONTAINMENT. ESG IS EXPECTED TO BE ON SITE SHORTLY. 02/02/01: FG SPOKE TO DAVE MENDEL WITH THE ENVIRONMENTAL SERVICE GROUP. HE SAID BUFFALO GENERAL GENERATED 15 DRUMS OF DEBRIS, TWO OF THOSE ARE FUEL OIL RECOVERED, THE REST ARE PADS, BOOMS, SPEEDI DRY. ESG WILL BE HANDLING THE DISPOSAL OF THE MATERIAL AND WILL SEND ME A DISPOSAL RECEIPT. 02/27/01: FG RECEIVED DISPOSAL RECPT. NO FURTHER WORK IS REQUIRED. SITE CAN BE CLOSED."
Remarks:	"CALLER SAID THAT THY HAD A #6 FUEL OIL SPILL(50 GAL),ALL IN THEIR SECONDARY CONTANIMENT AREA,BUT A SMALL AMOUNT GOT INTO THE SEWER,DUE TO THE RAIN...THEY HAVE PUT ABSORBANT BOOMS/PADS ALL OVER AND HAVE CONTAINED ABOUT 49 GALS."

All Materials:

Site ID:	138918
Operable Unit ID:	838457
Operable Unit:	01
Material ID:	539165
Material Code:	0003A
Material Name:	#6 fuel oil
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	50.00
Units:	G
Recovered:	49.00
Oxygenate:	Not reported

Facility ID:	8909904
Site ID:	138920
Closed Date:	1990-07-10
Spill Number:	8909904
Spill Date:	1990-01-15
Spill Cause:	Tank Test Failure
Spill Source:	Institutional, Educational, Gov., Other
Spill Class:	Not reported
Cleanup Ceased:	1990-07-10
SWIS:	1502
Investigator:	PRINGLE
Referred To:	Not reported
Reported to Dept:	1990-01-16
CID:	Not reported
Water Affected:	Not reported
Spill Notifier:	Responsible Party
Last Inspection:	Not reported
Recommended Penalty:	False

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Meets Standard:	True
UST Involvement:	True
Remediation Phase:	0
Date Entered In Computer:	1990-01-29
Spill Record Last Update:	1990-07-11
Spiller Name:	Not reported
Spiller Company:	BUFFALO GENERAL HOSPITAL
Spiller Address:	100 HIGH STREET
Spiller County:	001
Spiller Contact:	Not reported
Spiller Phone:	Not reported
Spiller Extention:	Not reported
DEC Region:	9
DER Facility ID:	118777
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was MNP 01/24/90: 1/24/90 LETTER TO FLANIGAN, OPTION TO RETEST OR REMOVE TANK. 07/10/90: 7/10/90 MNP REVIEW OF FILE TANK RETEST RECEIVED 1/31/90. TANK TEST RESULTS SATISFACTORY, TANK & PIPING TESTED TIGHT, COMPLETE. "
Remarks:	"5,000 GAL. UST FAILED SYSTEM TEST"

All TTF:

Facility ID:	8909904
Spill Number:	8909904
Spill Tank Test:	1536684
Site ID:	138920
Tank Number:	Not reported
Tank Size:	0
Material:	0008
EPA UST:	Not reported
UST:	Not reported
Cause:	Not reported
Source:	Not reported
Test Method:	00
Test Method 2:	Unknown
Leak Rate:	.00
Gross Fail:	Not reported
Modified By:	Spills
Last Modified Date:	Not reported

All Materials:

Site ID:	138920
Operable Unit ID:	935004
Operable Unit:	01
Material ID:	443045
Material Code:	0008
Material Name:	diesel
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	.00
Units:	Not reported
Recovered:	.00
Oxygenate:	Not reported

AST:

Region:	STATE

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

DEC Region: 9
Site Status: Active
Facility Id: 9-451320
Program Type: PBS
UTM X: 184437.31797
UTM Y: 4756999.97265
Expiration Date: 07/28/2018
Site Type: Hospital/Nursing Home/Health Care

Affiliation Records:

Site Id: 54488
Affiliation Type: Mail Contact
Company Name: BUFFALO GENERAL HOSPITAL
Contact Type: Not reported
Contact Name: TIM BATT
Address1: 100 HIGH ST
Address2: Not reported
City: BUFFALO
State: NY
Zip Code: 14203
Country Code: 001
Phone: (716) 859-2715
EMail: TBATT@KALEIDAHEALTH.ORG
Fax Number: Not reported
Modified By: PTDIEZ
Date Last Modified: 2016-12-06

Site Id: 54488
Affiliation Type: Facility Operator
Company Name: BUFFALO GENERAL HOSPITAL
Contact Type: Not reported
Contact Name: TIMOTHY BATT
Address1: Not reported
Address2: Not reported
City: Not reported
State: NN
Zip Code: Not reported
Country Code: 001
Phone: (716) 859-2613
EMail: Not reported
Fax Number: Not reported
Modified By: AYLAGATI
Date Last Modified: 2017-01-27

Site Id: 54488
Affiliation Type: Emergency Contact
Company Name: BUFFALO GENERAL HOSPITAL
Contact Type: Not reported
Contact Name: TIM BATT
Address1: Not reported
Address2: Not reported
City: Not reported
State: NN
Zip Code: Not reported
Country Code: 999
Phone: (716) 859-2715
EMail: Not reported
Fax Number: Not reported

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Modified By:	PTDIEZ
Date Last Modified:	2016-12-06
Site Id:	54488
Affiliation Type:	Facility Owner
Company Name:	BUFFALO GENERAL HOSPITAL
Contact Type:	PLANT OPERATIONS SUPERVISOR
Contact Name:	TIM BATT
Address1:	100 HIGH ST
Address2:	Not reported
City:	BUFFALO
State:	NY
Zip Code:	14203
Country Code:	001
Phone:	(716) 859-2613
EMail:	Not reported
Fax Number:	Not reported
Modified By:	PTDIEZ
Date Last Modified:	2016-12-06

Tank Info:

Tank Number:	09
Tank Id:	174947
Material Code:	0008
Common Name of Substance:	Diesel

Equipment Records:

J03 - Dispenser - Gravity
G03 - Tank Secondary Containment - Vault (w/o access)
I02 - Overfill - High Level Alarm
K01 - Spill Prevention - Catch Basin
C01 - Pipe Location - Aboveground
F06 - Pipe External Protection - Wrapped
A00 - Tank Internal Protection - None
D01 - Pipe Type - Steel/Carbon Steel/Iron
H01 - Tank Leak Detection - Interstitial - Electronic Monitoring
I01 - Overfill - Float Vent Valve
B05 - Tank External Protection - Jacketed

Tank Location:	1
Tank Type:	Steel/Carbon Steel/Iron
Tank Status:	Closed - Removed
Pipe Model:	Not reported
Install Date:	12/20/1999
Capacity Gallons:	1500
Tightness Test Method:	-
Date Test:	Not reported
Next Test Date:	Not reported
Date Tank Closed:	10/01/2009
Register:	True
Modified By:	AESKALSK
Last Modified:	04/14/2017
Material Name:	diesel
Tank Number:	3A

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Tank Id: 248682

Equipment Records:

B09 - Tank External Protection - Urethane
A03 - Tank Internal Protection - Fiberglass Liner (FRP)
I04 - Overfill - Product Level Gauge (A/G)
K01 - Spill Prevention - Catch Basin
C03 - Pipe Location - Aboveground/Underground Combination
E12 - Piping Secondary Containment - Double-Walled (AG only)
G12 - Tank Secondary Containment - Double-Walled (AG only)
J05 - Dispenser - On Site Heating System (Supply/Return)
L01 - Piping Leak Detection - Interstitial - Electronic Monitoring
D01 - Pipe Type - Steel/Carbon Steel/Iron
H01 - Tank Leak Detection - Interstitial - Electronic Monitoring

Tank Location: 3
Tank Type: Steel/Carbon Steel/Iron
Tank Status: In Service
Pipe Model: Not reported
Install Date: 05/09/2011
Capacity Gallons: 26000
Tightness Test Method: NN
Date Test: Not reported
Next Test Date: Not reported
Date Tank Closed: Not reported
Register: True
Modified By: PTDIEZ
Last Modified: 04/14/2017
Material Name: diesel

Tank Number: 3A-1
Tank Id: 251478

Equipment Records:

G01 - Tank Secondary Containment - Diking (Aboveground)
E00 - Piping Secondary Containment - None
H00 - Tank Leak Detection - None
L09 - Piping Leak Detection - Exempt Suction Piping
J02 - Dispenser - Suction Dispenser
A00 - Tank Internal Protection - None
B01 - Tank External Protection - Painted/Asphalt Coating
D01 - Pipe Type - Steel/Carbon Steel/Iron
F01 - Pipe External Protection - Painted/Asphalt Coating
K00 - Spill Prevention - None
C01 - Pipe Location - Aboveground
I04 - Overfill - Product Level Gauge (A/G)

Tank Location: 3
Tank Type: Steel/Carbon Steel/Iron
Tank Status: In Service
Pipe Model: Not reported
Install Date: 05/09/2011
Capacity Gallons: 500
Tightness Test Method: NN
Date Test: Not reported
Next Test Date: Not reported
Date Tank Closed: Not reported
Register: True
Modified By: PTDIEZ

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Last Modified: 04/14/2017
Material Name: diesel

Tank Number: 3A-2
Tank Id: 251479

Equipment Records:

J02 - Dispenser - Suction Dispenser
E00 - Piping Secondary Containment - None
H00 - Tank Leak Detection - None
L09 - Piping Leak Detection - Exempt Suction Piping
C01 - Pipe Location - Aboveground
I04 - Overfill - Product Level Gauge (A/G)
G01 - Tank Secondary Containment - Diking (Aboveground)
A00 - Tank Internal Protection - None
B01 - Tank External Protection - Painted/Asphalt Coating
D01 - Pipe Type - Steel/Carbon Steel/Iron
F01 - Pipe External Protection - Painted/Asphalt Coating
K00 - Spill Prevention - None

Tank Location: 3
Tank Type: Steel/Carbon Steel/Iron
Tank Status: In Service
Pipe Model: Not reported
Install Date: 05/09/2011
Capacity Gallons: 500
Tightness Test Method: NN
Date Test: Not reported
Next Test Date: Not reported
Date Tank Closed: Not reported
Register: True
Modified By: PTDIEZ
Last Modified: 04/14/2017
Material Name: diesel

Tank Number: 3A-3
Tank Id: 251480

Equipment Records:

E00 - Piping Secondary Containment - None
H00 - Tank Leak Detection - None
L09 - Piping Leak Detection - Exempt Suction Piping
G01 - Tank Secondary Containment - Diking (Aboveground)
C01 - Pipe Location - Aboveground
I04 - Overfill - Product Level Gauge (A/G)
J02 - Dispenser - Suction Dispenser
A00 - Tank Internal Protection - None
B01 - Tank External Protection - Painted/Asphalt Coating
D01 - Pipe Type - Steel/Carbon Steel/Iron
F01 - Pipe External Protection - Painted/Asphalt Coating
K00 - Spill Prevention - None

Tank Location: 3
Tank Type: Steel/Carbon Steel/Iron
Tank Status: In Service
Pipe Model: Not reported
Install Date: 05/09/2011
Capacity Gallons: 500

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Tightness Test Method: NN
Date Test: Not reported
Next Test Date: Not reported
Date Tank Closed: Not reported
Register: True
Modified By: PTDIEZ
Last Modified: 04/14/2017
Material Name: diesel

Tank Number: 6
Tank Id: 178126
Material Code: 0022
Common Name of Substance: Waste Oil/Used Oil

Equipment Records:
H00 - Tank Leak Detection - None
I00 - Overfill - None
K01 - Spill Prevention - Catch Basin
D00 - Pipe Type - No Piping
G01 - Tank Secondary Containment - Diking (Aboveground)
J03 - Dispenser - Gravity
C00 - Pipe Location - No Piping
F00 - Pipe External Protection - None
A00 - Tank Internal Protection - None
B01 - Tank External Protection - Painted/Asphalt Coating

Tank Location: 1
Tank Type: Steel/Carbon Steel/Iron
Tank Status: In Service
Pipe Model: Not reported
Install Date: 11/01/1997
Capacity Gallons: 250
Tightness Test Method: NN
Date Test: Not reported
Next Test Date: Not reported
Date Tank Closed: Not reported
Register: True
Modified By: PTDIEZ
Last Modified: 04/14/2017
Material Name: waste oil/used oil

Tank Number: 6-A
Tank Id: 178127
Material Code: 0001
Common Name of Substance: #2 Fuel Oil (On-Site Consumption)

Equipment Records:
G03 - Tank Secondary Containment - Vault (w/o access)
H00 - Tank Leak Detection - None
I04 - Overfill - Product Level Gauge (A/G)
B00 - Tank External Protection - None
C00 - Pipe Location - No Piping
F00 - Pipe External Protection - None
J02 - Dispenser - Suction Dispenser
A00 - Tank Internal Protection - None

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

D01 - Pipe Type - Steel/Carbon Steel/Iron
Tank Location: 6
Tank Type: Steel/Carbon Steel/Iron
Tank Status: Closed Prior to Micro Conversion, 03/91
Pipe Model: Not reported
Install Date: Not reported
Capacity Gallons: 3000
Tightness Test Method: NN
Date Test: Not reported
Next Test Date: Not reported
Date Tank Closed: Not reported
Register: True
Modified By: TRANSLAT
Last Modified: 04/14/2017
Material Name: #2 fuel oil (on-site consumption)

Tank Number: 7-A
Tank Id: 178129
Material Code: 0001
Common Name of Substance: #2 Fuel Oil (On-Site Consumption)

Equipment Records:

G03 - Tank Secondary Containment - Vault (w/o access)
H00 - Tank Leak Detection - None
I04 - Overfill - Product Level Gauge (A/G)
J02 - Dispenser - Suction Dispenser
B00 - Tank External Protection - None
C00 - Pipe Location - No Piping
F00 - Pipe External Protection - None
A00 - Tank Internal Protection - None
D01 - Pipe Type - Steel/Carbon Steel/Iron
Tank Location: 6
Tank Type: Steel/Carbon Steel/Iron
Tank Status: Closed Prior to Micro Conversion, 03/91
Pipe Model: Not reported
Install Date: Not reported
Capacity Gallons: 3000
Tightness Test Method: NN
Date Test: Not reported
Next Test Date: Not reported
Date Tank Closed: Not reported
Register: True
Modified By: TRANSLAT
Last Modified: 04/14/2017
Material Name: #2 fuel oil (on-site consumption)

Tank Number: 8-1
Tank Id: 251482

Equipment Records:

C01 - Pipe Location - Aboveground
I04 - Overfill - Product Level Gauge (A/G)
E00 - Piping Secondary Containment - None
H00 - Tank Leak Detection - None
L09 - Piping Leak Detection - Exempt Suction Piping

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

J02 - Dispenser - Suction Dispenser
G01 - Tank Secondary Containment - Diking (Aboveground)
A00 - Tank Internal Protection - None
B01 - Tank External Protection - Painted/Asphalt Coating
D01 - Pipe Type - Steel/Carbon Steel/Iron
F01 - Pipe External Protection - Painted/Asphalt Coating
K00 - Spill Prevention - None

Tank Location: 3
Tank Type: Steel/Carbon Steel/Iron
Tank Status: In Service
Pipe Model: Not reported
Install Date: 10/01/1998
Capacity Gallons: 200
Tightness Test Method: NN
Date Test: Not reported
Next Test Date: Not reported
Date Tank Closed: Not reported
Register: True
Modified By: PTDIEZ
Last Modified: 04/14/2017
Material Name: diesel

Tank Number: 8-2
Tank Id: 251484

Equipment Records:

G01 - Tank Secondary Containment - Diking (Aboveground)
E00 - Piping Secondary Containment - None
H00 - Tank Leak Detection - None
L09 - Piping Leak Detection - Exempt Suction Piping
A00 - Tank Internal Protection - None
B01 - Tank External Protection - Painted/Asphalt Coating
D01 - Pipe Type - Steel/Carbon Steel/Iron
F01 - Pipe External Protection - Painted/Asphalt Coating
K00 - Spill Prevention - None
J02 - Dispenser - Suction Dispenser
C01 - Pipe Location - Aboveground
I04 - Overfill - Product Level Gauge (A/G)

Tank Location: 3
Tank Type: Steel/Carbon Steel/Iron
Tank Status: In Service
Pipe Model: Not reported
Install Date: 10/01/1998
Capacity Gallons: 200
Tightness Test Method: NN
Date Test: Not reported
Next Test Date: Not reported
Date Tank Closed: Not reported
Register: True
Modified By: PTDIEZ
Last Modified: 04/14/2017
Material Name: diesel

Tank Number: 8-3
Tank Id: 251485

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Equipment Records:
G01 - Tank Secondary Containment - Diking (Aboveground)
C01 - Pipe Location - Aboveground
I04 - Overfill - Product Level Gauge (A/G)
E00 - Piping Secondary Containment - None
H00 - Tank Leak Detection - None
L09 - Piping Leak Detection - Exempt Suction Piping
A00 - Tank Internal Protection - None
B01 - Tank External Protection - Painted/Asphalt Coating
D01 - Pipe Type - Steel/Carbon Steel/Iron
F01 - Pipe External Protection - Painted/Asphalt Coating
K00 - Spill Prevention - None
J02 - Dispenser - Suction Dispenser

Tank Location:	3
Tank Type:	Steel/Carbon Steel/Iron
Tank Status:	In Service
Pipe Model:	Not reported
Install Date:	10/01/1998
Capacity Gallons:	200
Tightness Test Method:	NN
Date Test:	Not reported
Next Test Date:	Not reported
Date Tank Closed:	Not reported
Register:	True
Modified By:	PTDIEZ
Last Modified:	04/14/2017
Material Name:	diesel

Tank Number:	8-4
Tank Id:	251489

Equipment Records:
L09 - Piping Leak Detection - Exempt Suction Piping
E00 - Piping Secondary Containment - None
H00 - Tank Leak Detection - None
G01 - Tank Secondary Containment - Diking (Aboveground)
I04 - Overfill - Product Level Gauge (A/G)
C01 - Pipe Location - Aboveground
J02 - Dispenser - Suction Dispenser
K00 - Spill Prevention - None
D01 - Pipe Type - Steel/Carbon Steel/Iron
F01 - Pipe External Protection - Painted/Asphalt Coating
A00 - Tank Internal Protection - None
B01 - Tank External Protection - Painted/Asphalt Coating

Tank Location:	3
Tank Type:	Steel/Carbon Steel/Iron
Tank Status:	In Service
Pipe Model:	Not reported
Install Date:	10/01/1998
Capacity Gallons:	200
Tightness Test Method:	NN
Date Test:	Not reported
Next Test Date:	Not reported
Date Tank Closed:	Not reported
Register:	True
Modified By:	PTDIEZ

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Last Modified: 04/14/2017
Material Name: diesel

Tank Number: 8-5
Tank Id: 251491

Equipment Records:

E00 - Piping Secondary Containment - None
H00 - Tank Leak Detection - None
L09 - Piping Leak Detection - Exempt Suction Piping
G01 - Tank Secondary Containment - Diking (Aboveground)
C01 - Pipe Location - Aboveground
I04 - Overfill - Product Level Gauge (A/G)
J02 - Dispenser - Suction Dispenser
A00 - Tank Internal Protection - None
B01 - Tank External Protection - Painted/Asphalt Coating
D01 - Pipe Type - Steel/Carbon Steel/Iron
F01 - Pipe External Protection - Painted/Asphalt Coating
K00 - Spill Prevention - None

Tank Location: 3
Tank Type: Steel/Carbon Steel/Iron
Tank Status: In Service
Pipe Model: Not reported
Install Date: 10/01/1998
Capacity Gallons: 100
Tightness Test Method: NN
Date Test: Not reported
Next Test Date: Not reported
Date Tank Closed: Not reported
Register: True
Modified By: PTDIEZ
Last Modified: 04/14/2017
Material Name: diesel

Tank Number: 9
Tank Id: 264579

Equipment Records:

I04 - Overfill - Product Level Gauge (A/G)
L09 - Piping Leak Detection - Exempt Suction Piping
E00 - Piping Secondary Containment - None
A01 - Tank Internal Protection - Epoxy Liner
G01 - Tank Secondary Containment - Diking (Aboveground)
K00 - Spill Prevention - None
D01 - Pipe Type - Steel/Carbon Steel/Iron
F01 - Pipe External Protection - Painted/Asphalt Coating
H01 - Tank Leak Detection - Interstitial - Electronic Monitoring
B01 - Tank External Protection - Painted/Asphalt Coating
J02 - Dispenser - Suction Dispenser
C03 - Pipe Location - Aboveground/Underground Combination

Tank Location: 3
Tank Type: Steel/Carbon Steel/Iron
Tank Status: In Service
Pipe Model: Not reported
Install Date: 10/01/2015
Capacity Gallons: 15000

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Tightness Test Method: -
Date Test: Not reported
Next Test Date: Not reported
Date Tank Closed: Not reported
Register: True
Modified By: PTDIEZ
Last Modified: 04/14/2017
Material Name: diesel

Tank Number: 9A
Tank Id: 265033

Equipment Records:
J02 - Dispenser - Suction Dispenser
E00 - Piping Secondary Containment - None
H00 - Tank Leak Detection - None
L09 - Piping Leak Detection - Exempt Suction Piping
C01 - Pipe Location - Aboveground
I04 - Overfill - Product Level Gauge (A/G)
G01 - Tank Secondary Containment - Diking (Aboveground)
D02 - Pipe Type - Galvanized Steel
A00 - Tank Internal Protection - None
B01 - Tank External Protection - Painted/Asphalt Coating
F01 - Pipe External Protection - Painted/Asphalt Coating
K00 - Spill Prevention - None

Tank Location: 3
Tank Type: Steel/Carbon Steel/Iron
Tank Status: In Service
Pipe Model: Not reported
Install Date: 10/01/2015
Capacity Gallons: 500
Tightness Test Method: -
Date Test: Not reported
Next Test Date: Not reported
Date Tank Closed: Not reported
Register: True
Modified By: PTDIEZ
Last Modified: 04/14/2017
Material Name: diesel

SPILLS:
Facility ID: 0109330
Facility Type: ER
Spill Number: 0109330
DER Facility ID: 118777
Site ID: 138919
DEC Region: 9
Closed Date: 2001-12-21
Spill Cause: Human Error
Spill Class: D4
SWIS: 1502
Spill Date: 2001-12-20
Investigator: BRENNAN
Referred To: Not reported
Reported to Dept: 2001-12-20
CID: 196

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Water Affected:	Not reported
Spill Source:	Commercial/Industrial
Spill Notifier:	Responsible Party
Cleanup Ceased:	Not reported
Cleanup Meets Std:	True
Last Inspection:	Not reported
Recommended Penalty:	False
UST Trust:	False
Remediation Phase:	0
Date Entered In Computer:	2001-12-20
Spill Record Last Update:	2002-01-04
Spiller Name:	Not reported
Spiller Company:	BUFFALO GENERAL HOSPITAL
Spiller Address:	100 HIGH STREET
Spiller Company:	001
Contact Name:	SGT COLLEGE
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was KAB 12/21/01: KAB RECEIVED AFTER-HOURS REPORT OF SPILLAGE AT BUFFALO GENERAL HOSPITAL. NO RESPONDER CALLED OUT AT TIME OF INCIDENT. MINOR SPILLAGE CLEANED UP BY RP AND DISPOSED WITH HOSPITAL'S REGULAR HAZMAT DISPOSAL. NO FURTHER ACTION NECESSARY. CLOSE OUT. *****NO PAPER FILE EXISTS FOR THIS SPILL*****"
Remarks:	"CALLER STATES THAT A MATERIAL NAMED NATURALYTE THAT IS USED FOR A DIALISAS MACHINE SPILLED 1 QUART IN A ELEVATOR MATERIAL HAS BEEN CLEANED UP. UNKNOWN WHO SPILLED THE PRODUCT. CHEMICAL HAS BEEN CLEANED UP BY THE HOSPITAL CHEMICAL TEAM. PUT IN BIO HAZMAT BAGS AND WILL BE DISPOSED."

All Materials:

Site ID:	138919
Operable Unit ID:	846677
Operable Unit:	01
Material ID:	530537
Material Code:	0064A
Material Name:	unknown material
Case No.:	Not reported
Material FA:	Other
Quantity:	1.00
Units:	G
Recovered:	1.00
Oxygenate:	Not reported

Facility ID:	9408004
Facility Type:	ER
Spill Number:	9408004
DER Facility ID:	118777
Site ID:	138921
DEC Region:	9
Closed Date:	1994-09-14
Spill Cause:	Equipment Failure
Spill Class:	D3
SWIS:	1502
Spill Date:	1994-09-14
Investigator:	RMCROSSE
Referred To:	Not reported
Reported to Dept:	1994-09-14
CID:	Not reported

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Water Affected:	Not reported
Spill Source:	Commercial Vehicle
Spill Notifier:	Responsible Party
Cleanup Ceased:	1994-09-14
Cleanup Meets Std:	True
Last Inspection:	1994-09-14
Recommended Penalty:	False
UST Trust:	False
Remediation Phase:	0
Date Entered In Computer:	1994-09-15
Spill Record Last Update:	1994-10-07
Spiller Name:	Not reported
Spiller Company:	BUFFALO GENERAL
Spiller Address:	100 HIGH STREET
Spiller Company:	001
Contact Name:	Not reported
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was RMC 09/14/94: RMC/KERLING/PHONE RMC/SITE MATERIAL CLEANED UP W/ SPEEDY DRY AND PUT IN DUMPSTER, NO FURTHE ACTION REQUIRED, CLOSEOUT. "
	Not reported
Remarks:	"HYDRAULIC LINE FAILURE ON TRUCK"

All Materials:

Site ID:	138921
Operable Unit ID:	1005715
Operable Unit:	01
Material ID:	377457
Material Code:	0022
Material Name:	waste oil/used oil
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	5.00
Units:	G
Recovered:	5.00
Oxygenate:	Not reported

ICIS:

Enforcement Action ID:	NY000A0000914020008900023
FRS ID:	110000879808
Action Name:	BUFFALO GENERAL HOSPITAL 360290003300023
Facility Name:	BUFFALO GENERAL HOSPITAL
Facility Address:	100 HIGH ST
	BUFFALO, NY 14203
Enforcement Action Type:	Administrative Order
Facility County:	ERIE
Program System Acronym:	AIR
Enforcement Action Forum Desc:	Administrative - Formal
EA Type Code:	SCAAAO
Facility SIC Code:	8062
Federal Facility ID:	Not reported
Latitude in Decimal Degrees:	42.901232
Longitude in Decimal Degrees:	78.8655913
Permit Type Desc:	Not reported
Program System Acronym:	NY0000009140200089
Facility NAICS Code:	622110
Tribal Land Code:	Not reported

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Enforcement Action ID: NY000A0000914020008900019
FRS ID: 110000879808
Action Name: BUFFALO GENERAL HOSPITAL 360290003300019
Facility Name: BUFFALO GENERAL HOSPITAL
Facility Address: 100 HIGH ST
BUFFALO, NY 14203
Enforcement Action Type: Notice of Violation
Facility County: ERIE
Program System Acronym: AIR
Enforcement Action Forum Desc: Administrative - Informal
EA Type Code: NOV
Facility SIC Code: 8062
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 42.901232
Longitude in Decimal Degrees: 78.8655913
Permit Type Desc: Not reported
Program System Acronym: NY0000009140200089
Facility NAICS Code: 622110
Tribal Land Code: Not reported

Enforcement Action ID: NY000A0000914020008900011
FRS ID: 110000879808
Action Name: BUFFALO GENERAL HOSPITAL 360290003300011
Facility Name: BUFFALO GENERAL HOSPITAL
Facility Address: 100 HIGH ST
BUFFALO, NY 14203
Enforcement Action Type: Civil Judicial Action
Facility County: ERIE
Program System Acronym: AIR
Enforcement Action Forum Desc: Judicial
EA Type Code: CIV
Facility SIC Code: 8062
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 42.901232
Longitude in Decimal Degrees: 78.8655913
Permit Type Desc: Not reported
Program System Acronym: NY0000009140200089
Facility NAICS Code: 622110
Tribal Land Code: Not reported

Enforcement Action ID: NY000A0000914020008900004
FRS ID: 110000879808
Action Name: BUFFALO GENERAL HOSPITAL 360290003300004
Facility Name: BUFFALO GENERAL HOSPITAL
Facility Address: 100 HIGH ST
BUFFALO, NY 14203
Enforcement Action Type: Administrative Order
Facility County: ERIE
Program System Acronym: AIR
Enforcement Action Forum Desc: Administrative - Formal
EA Type Code: SCAAAO
Facility SIC Code: 8062
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 42.901232
Longitude in Decimal Degrees: 78.8655913
Permit Type Desc: Not reported
Program System Acronym: NY0000009140200089

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Facility NAICS Code: 622110
Tribal Land Code: Not reported

US AIRS (AFS):
Envid: 1000105471
Region Code: 02
County Code: NY029
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
D and B Number: Not reported
Facility Site Name: BUFFALO GENERAL HOSPITAL
Primary SIC Code: 8062
NAICS Code: 622110
Default Air Classification Code: SMI
Facility Type of Ownership Code: Not reported
Air CMS Category Code: SMI
HPV Status: Not reported

US AIRS (AFS):
Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: New Source Performance Standards
Activity Date: 2001-01-31 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: New Source Performance Standards
Activity Date: 2001-03-09 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: New Source Performance Standards
Activity Date: 2001-04-17 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: New Source Performance Standards
Activity Date: 2002-10-04 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: Not reported
Activity Status Date: 1993-04-01 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: Not reported
Activity Status Date: 1997-07-31 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1999-11-16 00:00:00
Activity Status Date: 2016-05-02 14:01:56
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2001-10-02 00:00:00
Activity Status Date: 2016-05-02 14:01:56
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Activity Status: Active

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2001-12-11 00:00:00
Activity Status Date: 2016-05-02 14:01:56
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2015-04-02 00:00:00
Activity Status Date: 2016-05-02 14:01:56
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2016-04-06 00:00:00
Activity Status Date: 2016-06-09 07:02:14
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1983-10-27 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1985-01-18 00:00:00

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1987-04-22 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1990-02-07 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1991-03-08 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1992-01-01 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1992-11-05 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1993-08-13 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1996-06-25 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1996-08-28 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1996-10-28 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1996-10-29 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1997-02-24 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1997-08-21 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1997-11-12 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1997-12-29 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1998-09-01 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1998-11-12 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1998-11-23 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1999-05-12 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2000-03-14 00:00:00

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2000-05-17 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2001-01-31 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2001-03-09 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2001-04-17 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2001-05-07 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2002-03-19 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2002-04-25 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2002-10-04 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2003-03-07 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2003-04-14 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2003-05-13 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2004-04-28 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2004-09-30 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2005-02-22 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2006-02-02 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2007-06-06 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2008-04-02 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2008-05-15 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2009-03-30 00:00:00

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2009-09-22 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2009-09-24 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2010-03-31 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2011-03-31 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2012-03-23 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2013-03-06 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2014-09-09 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2014-09-25 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1985-12-05 00:00:00
Activity Status Date: 1985-12-05 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 02

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1997-07-31 00:00:00
Activity Status Date: 1997-07-31 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1996-10-25 00:00:00
Activity Status Date: 1996-10-25 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1992-10-26 00:00:00
Activity Status Date: 1992-10-26 00:00:00
Activity Group: Enforcement Action
Activity Type: Judicial
Activity Status: Closed

Region Code: 02
Programmatic ID: AIR NY0000009140200089
Facility Registry ID: 110000879808
Air Operating Status Code: OPR
Default Air Classification Code: SMI
Air Program: Title V Permits
Activity Date: 1998-08-31 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

FINDS:

Registry ID: 110000879808

Environmental Interest/Information System
AFS (Aerometric Information Retrieval System (AIRS) Facility Subsystem) replaces the former Compliance Data System (CDS), the National Emission Data System (NEDS), and the Storage and Retrieval of Aerometric Data (SAROAD). AIRS is the national repository for

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

information concerning airborne pollution in the United States. AFS is used to track emissions and compliance data from industrial plants. AFS data are utilized by states to prepare State Implementation Plans to comply with regulatory programs and by EPA as an input for the estimation of total national emissions. AFS is undergoing a major redesign to support facility operating permits required under Title V of the Clean Air Act.

AIR SYNTHETIC MINOR

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.

FIS (New York - Facility Information System) is New York's Department of Environmental Conservation (DEC) information system for tracking environmental facility information found across the State.

HAZARDOUS WASTE BIENNIAL REPORTER

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:	1000105471
Registry ID:	110000879808
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110000879808

AIRS:

Permit Type:	ATV
Permit Status:	Expired
Issue Date:	04/13/1999
Expiration Date:	04/13/2004
County Fips:	Not reported
DEC Id:	9140200089
Emission Unit Id:	Not reported
Process Id:	Not reported
Contaminant Name/cas:	Not reported
Epa Control Code:	Not reported
Contol Eff:	Not reported
Emissions:	Not reported
Unit:	Not reported
Auth Type Code:	7
Latitude:	42.901232295
Longitude:	78.865591314

Permit Type:	Not reported
Permit Status:	Not reported
Issue Date:	Not reported
Expiration Date:	Not reported
County Fips:	36029
DEC Id:	9140200089

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Emission Unit Id: B00001
Process Id: B01FP
Contaminant Name/cas: 71432
Epa Control Code: Not reported
Contol Eff: Not reported
Emissions: 0.10999999
Unit: LB
Auth Type Code: Not reported
Latitude: Not reported
Longitude: Not reported

Permit Type: Not reported
Permit Status: Not reported
Issue Date: Not reported
Expiration Date: Not reported
County Fips: 36029
DEC Id: 9140200089
Emission Unit Id: B00001
Process Id: B01FP
Contaminant Name/cas: 56553
Epa Control Code: Not reported
Contol Eff: Not reported
Emissions: 0.0001
Unit: LB
Auth Type Code: Not reported
Latitude: Not reported
Longitude: Not reported

Permit Type: Not reported
Permit Status: Not reported
Issue Date: Not reported
Expiration Date: Not reported
County Fips: 36029
DEC Id: 9140200089
Emission Unit Id: B00001
Process Id: B01FP
Contaminant Name/cas: 50328
Epa Control Code: Not reported
Contol Eff: Not reported
Emissions: 0.0001
Unit: LB
Auth Type Code: Not reported
Latitude: Not reported
Longitude: Not reported

Permit Type: Not reported
Permit Status: Not reported
Issue Date: Not reported
Expiration Date: Not reported
County Fips: 36029
DEC Id: 9140200089
Emission Unit Id: B00001
Process Id: B01FP
Contaminant Name/cas: 50000
Epa Control Code: Not reported
Contol Eff: Not reported
Emissions: 3.97000002

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Unit: LB
Auth Type Code: Not reported
Latitude: Not reported
Longitude: Not reported

Permit Type: Not reported
Permit Status: Not reported
Issue Date: Not reported
Expiration Date: Not reported
County Fips: 36029
DEC Id: 9140200089
Emission Unit Id: B00001
Process Id: B01FP
Contaminant Name/cas: 218019
Epa Control Code: Not reported
Contol Eff: Not reported
Emissions: 0.0001
Unit: LB
Auth Type Code: Not reported
Latitude: Not reported
Longitude: Not reported

Permit Type: Not reported
Permit Status: Not reported
Issue Date: Not reported
Expiration Date: Not reported
County Fips: 36029
DEC Id: 9140200089
Emission Unit Id: B00001
Process Id: B01FP
Contaminant Name/cas: 207089
Epa Control Code: Not reported
Contol Eff: Not reported
Emissions: 0.0001
Unit: LB
Auth Type Code: Not reported
Latitude: Not reported
Longitude: Not reported

Permit Type: Not reported
Permit Status: Not reported
Issue Date: Not reported
Expiration Date: Not reported
County Fips: 36029
DEC Id: 9140200089
Emission Unit Id: B00001
Process Id: B01FP
Contaminant Name/cas: 206440
Epa Control Code: Not reported
Contol Eff: Not reported
Emissions: 0.0002
Unit: LB
Auth Type Code: Not reported
Latitude: Not reported
Longitude: Not reported

Permit Type: Not reported

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Permit Status:	Not reported
Issue Date:	Not reported
Expiration Date:	Not reported
County Fips:	36029
DEC Id:	9140200089
Emission Unit Id:	B00001
Process Id:	B01FP
Contaminant Name/cas:	205992
Epa Control Code:	Not reported
Contol Eff:	Not reported
Emissions:	0.0001
Unit:	LB
Auth Type Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported

Permit Type:	Not reported
Permit Status:	Not reported
Issue Date:	Not reported
Expiration Date:	Not reported
County Fips:	36029
DEC Id:	9140200089
Emission Unit Id:	B00001
Process Id:	B01FP
Contaminant Name/cas:	191242
Epa Control Code:	Not reported
Contol Eff:	Not reported
Emissions:	0.0001
Unit:	LB
Auth Type Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported

Permit Type:	Not reported
Permit Status:	Not reported
Issue Date:	Not reported
Expiration Date:	Not reported
County Fips:	36029
DEC Id:	9140200089
Emission Unit Id:	B00001
Process Id:	B01FP
Contaminant Name/cas:	129000
Epa Control Code:	Not reported
Contol Eff:	Not reported
Emissions:	0.0004
Unit:	LB
Auth Type Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported

Permit Type:	Not reported
Permit Status:	Not reported
Issue Date:	Not reported
Expiration Date:	Not reported
County Fips:	36029
DEC Id:	9140200089
Emission Unit Id:	B00001

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Process Id: B01FP
Contaminant Name/cas: 120127
Epa Control Code: Not reported
Contol Eff: Not reported
Emissions: 0.0002
Unit: LB
Auth Type Code: Not reported
Latitude: Not reported
Longitude: Not reported

Permit Type: Not reported
Permit Status: Not reported
Issue Date: Not reported
Expiration Date: Not reported
County Fips: 36029
DEC Id: 9140200089
Emission Unit Id: B00001
Process Id: B01FP
Contaminant Name/cas: 110543
Epa Control Code: Not reported
Contol Eff: Not reported
Emissions: 95.3399963
Unit: LB
Auth Type Code: Not reported
Latitude: Not reported
Longitude: Not reported

Permit Type: Not reported
Permit Status: Not reported
Issue Date: Not reported
Expiration Date: Not reported
County Fips: 36029
DEC Id: 9140200089
Emission Unit Id: B00001
Process Id: B01FP
Contaminant Name/cas: 108883
Epa Control Code: Not reported
Contol Eff: Not reported
Emissions: 0.18
Unit: LB
Auth Type Code: Not reported
Latitude: Not reported
Longitude: Not reported

Permit Type: Not reported
Permit Status: Not reported
Issue Date: Not reported
Expiration Date: Not reported
County Fips: 36029
DEC Id: 9140200089
Emission Unit Id: B00001
Process Id: B02FP
Contaminant Name/cas: 50000
Epa Control Code: Not reported
Contol Eff: Not reported
Emissions: 15.8199996
Unit: LB

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Auth Type Code: Not reported
Latitude: Not reported
Longitude: Not reported

Permit Type: Not reported
Permit Status: Not reported
Issue Date: Not reported
Expiration Date: Not reported
County Fips: 36029
DEC Id: 9140200089
Emission Unit Id: B00001
Process Id: B01FP
Contaminant Name/cas: SO2
Epa Control Code: Not reported
Contol Eff: Not reported
Emissions: 0.02363999
Unit: TON
Auth Type Code: Not reported
Latitude: Not reported
Longitude: Not reported

Permit Type: Not reported
Permit Status: Not reported
Issue Date: Not reported
Expiration Date: Not reported
County Fips: 36029
DEC Id: 9140200089
Emission Unit Id: B00001
Process Id: B01FP
Contaminant Name/cas: PM10-PRI
Epa Control Code: Not reported
Contol Eff: Not reported
Emissions: 0.29771499
Unit: TON
Auth Type Code: Not reported
Latitude: Not reported
Longitude: Not reported

Permit Type: Not reported
Permit Status: Not reported
Issue Date: Not reported
Expiration Date: Not reported
County Fips: 36029
DEC Id: 9140200089
Emission Unit Id: B00001
Process Id: B01FP
Contaminant Name/cas: NOX
Epa Control Code: Not reported
Contol Eff: Not reported
Emissions: 3.94
Unit: TON
Auth Type Code: Not reported
Latitude: Not reported
Longitude: Not reported

Permit Type: Not reported
Permit Status: Not reported

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Issue Date:	Not reported
Expiration Date:	Not reported
County Fips:	36029
DEC Id:	9140200089
Emission Unit Id:	B00001
Process Id:	B01FP
Contaminant Name/cas:	NH3
Epa Control Code:	Not reported
Contol Eff:	Not reported
Emissions:	38.6100006
Unit:	LB
Auth Type Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported

Permit Type:	Not reported
Permit Status:	Not reported
Issue Date:	Not reported
Expiration Date:	Not reported
County Fips:	36029
DEC Id:	9140200089
Emission Unit Id:	B00001
Process Id:	B01FP
Contaminant Name/cas:	CO
Epa Control Code:	Not reported
Contol Eff:	Not reported
Emissions:	3.30960009
Unit:	TON
Auth Type Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported

Permit Type:	Not reported
Permit Status:	Not reported
Issue Date:	Not reported
Expiration Date:	Not reported
County Fips:	36029
DEC Id:	9140200089
Emission Unit Id:	B00001
Process Id:	B01FP
Contaminant Name/cas:	91203
Epa Control Code:	Not reported
Contol Eff:	Not reported
Emissions:	0.02999999
Unit:	LB
Auth Type Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported

Permit Type:	Not reported
Permit Status:	Not reported
Issue Date:	Not reported
Expiration Date:	Not reported
County Fips:	36029
DEC Id:	9140200089
Emission Unit Id:	B00001
Process Id:	B01FP

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Contaminant Name/cas: 86737
Epa Control Code: Not reported
Contol Eff: Not reported
Emissions: 0.0002
Unit: LB
Auth Type Code: Not reported
Latitude: Not reported
Longitude: Not reported

Permit Type: Not reported
Permit Status: Not reported
Issue Date: Not reported
Expiration Date: Not reported
County Fips: 36029
DEC Id: 9140200089
Emission Unit Id: B00001
Process Id: B01FP
Contaminant Name/cas: 85018
Epa Control Code: Not reported
Contol Eff: Not reported
Emissions: 0.0009
Unit: LB
Auth Type Code: Not reported
Latitude: Not reported
Longitude: Not reported

Permit Type: Not reported
Permit Status: Not reported
Issue Date: Not reported
Expiration Date: Not reported
County Fips: 36029
DEC Id: 9140200089
Emission Unit Id: B00001
Process Id: B01FP
Contaminant Name/cas: 83329
Epa Control Code: Not reported
Contol Eff: Not reported
Emissions: 0.0001
Unit: LB
Auth Type Code: Not reported
Latitude: Not reported
Longitude: Not reported

Permit Type: Not reported
Permit Status: Not reported
Issue Date: Not reported
Expiration Date: Not reported
County Fips: 36029
DEC Id: 9140200089
Emission Unit Id: B00001
Process Id: B01FP
Contaminant Name/cas: 7782492
Epa Control Code: Not reported
Contol Eff: Not reported
Emissions: 0.0019
Unit: LB
Auth Type Code: Not reported

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Latitude:	Not reported
Longitude:	Not reported
Permit Type:	Not reported
Permit Status:	Not reported
Issue Date:	Not reported
Expiration Date:	Not reported
County Fips:	36029
DEC Id:	9140200089
Emission Unit Id:	B00001
Process Id:	B01FP
Contaminant Name/cas:	7440484
Epa Control Code:	Not reported
Contol Eff:	Not reported
Emissions:	0.0066
Unit:	LB
Auth Type Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Permit Type:	Not reported
Permit Status:	Not reported
Issue Date:	Not reported
Expiration Date:	Not reported
County Fips:	36029
DEC Id:	9140200089
Emission Unit Id:	B00001
Process Id:	B01FP
Contaminant Name/cas:	7440473
Epa Control Code:	Not reported
Contol Eff:	Not reported
Emissions:	0.10999999
Unit:	LB
Auth Type Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Permit Type:	Not reported
Permit Status:	Not reported
Issue Date:	Not reported
Expiration Date:	Not reported
County Fips:	36029
DEC Id:	9140200089
Emission Unit Id:	B00001
Process Id:	B01FP
Contaminant Name/cas:	7440439
Epa Control Code:	Not reported
Contol Eff:	Not reported
Emissions:	0.07999999
Unit:	LB
Auth Type Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Permit Type:	Not reported
Permit Status:	Not reported
Issue Date:	Not reported

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Expiration Date:	Not reported
County Fips:	36029
DEC Id:	9140200089
Emission Unit Id:	B00001
Process Id:	B01FP
Contaminant Name/cas:	7440417
Epa Control Code:	Not reported
Contol Eff:	Not reported
Emissions:	0.0009
Unit:	LB
Auth Type Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported

Permit Type:	Not reported
Permit Status:	Not reported
Issue Date:	Not reported
Expiration Date:	Not reported
County Fips:	36029
DEC Id:	9140200089
Emission Unit Id:	B00001
Process Id:	B01FP
Contaminant Name/cas:	7440382
Epa Control Code:	Not reported
Contol Eff:	Not reported
Emissions:	0.01
Unit:	LB
Auth Type Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported

Permit Type:	Not reported
Permit Status:	Not reported
Issue Date:	Not reported
Expiration Date:	Not reported
County Fips:	36029
DEC Id:	9140200089
Emission Unit Id:	I00003
Process Id:	I2BFP
Contaminant Name/cas:	SO2
Epa Control Code:	Not reported
Contol Eff:	Not reported
Emissions:	0
Unit:	TON
Auth Type Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported

Permit Type:	Not reported
Permit Status:	Not reported
Issue Date:	Not reported
Expiration Date:	Not reported
County Fips:	36029
DEC Id:	9140200089
Emission Unit Id:	I00003
Process Id:	I2BFP
Contaminant Name/cas:	NOX

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Epa Control Code: Not reported
Contol Eff: Not reported
Emissions: 0
Unit: TON
Auth Type Code: Not reported
Latitude: Not reported
Longitude: Not reported

Permit Type: Not reported
Permit Status: Not reported
Issue Date: Not reported
Expiration Date: Not reported
County Fips: 36029
DEC Id: 9140200089
Emission Unit Id: I00003
Process Id: I2BFP
Contaminant Name/cas: CO
Epa Control Code: Not reported
Contol Eff: Not reported
Emissions: 0
Unit: TON
Auth Type Code: Not reported
Latitude: Not reported
Longitude: Not reported

Permit Type: Not reported
Permit Status: Not reported
Issue Date: Not reported
Expiration Date: Not reported
County Fips: 36029
DEC Id: 9140200089
Emission Unit Id: I00003
Process Id: I2BFP
Contaminant Name/cas: 7439921
Epa Control Code: Not reported
Contol Eff: Not reported
Emissions: 0
Unit: LB
Auth Type Code: Not reported
Latitude: Not reported
Longitude: Not reported

Permit Type: Not reported
Permit Status: Not reported
Issue Date: Not reported
Expiration Date: Not reported
County Fips: 36029
DEC Id: 9140200089
Emission Unit Id: I00003
Process Id: I2AFP
Contaminant Name/cas: SO2
Epa Control Code: Not reported
Contol Eff: Not reported
Emissions: 0.405
Unit: TON
Auth Type Code: Not reported
Latitude: Not reported

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Longitude:	Not reported
Permit Type:	Not reported
Permit Status:	Not reported
Issue Date:	Not reported
Expiration Date:	Not reported
County Fips:	36029
DEC Id:	9140200089
Emission Unit Id:	I00003
Process Id:	I2AFP
Contaminant Name/cas:	PM-PRI
Epa Control Code:	099
Contol Eff:	90
Emissions:	0.041
Unit:	TON
Auth Type Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Permit Type:	Not reported
Permit Status:	Not reported
Issue Date:	Not reported
Expiration Date:	Not reported
County Fips:	36029
DEC Id:	9140200089
Emission Unit Id:	I00003
Process Id:	I2AFP
Contaminant Name/cas:	NOX
Epa Control Code:	Not reported
Contol Eff:	Not reported
Emissions:	2.0205
Unit:	TON
Auth Type Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Permit Type:	Not reported
Permit Status:	Not reported
Issue Date:	Not reported
Expiration Date:	Not reported
County Fips:	36029
DEC Id:	9140200089
Emission Unit Id:	I00003
Process Id:	I2AFP
Contaminant Name/cas:	CO
Epa Control Code:	Not reported
Contol Eff:	Not reported
Emissions:	1.674
Unit:	TON
Auth Type Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Permit Type:	Not reported
Permit Status:	Not reported
Issue Date:	Not reported
Expiration Date:	Not reported

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

County Fips: 36029
DEC Id: 9140200089
Emission Unit Id: I00003
Process Id: I2AFP
Contaminant Name/cas: 7647010
Epa Control Code: 099
Contol Eff: 97
Emissions: 1023
Unit: LB
Auth Type Code: Not reported
Latitude: Not reported
Longitude: Not reported

Permit Type: Not reported
Permit Status: Not reported
Issue Date: Not reported
Expiration Date: Not reported
County Fips: 36029
DEC Id: 9140200089
Emission Unit Id: I00003
Process Id: I2AFP
Contaminant Name/cas: 7440473
Epa Control Code: 099
Contol Eff: 90
Emissions: 0.20999999
Unit: LB
Auth Type Code: Not reported
Latitude: Not reported
Longitude: Not reported

Permit Type: Not reported
Permit Status: Not reported
Issue Date: Not reported
Expiration Date: Not reported
County Fips: 36029
DEC Id: 9140200089
Emission Unit Id: I00003
Process Id: I2AFP
Contaminant Name/cas: 7440439
Epa Control Code: 099
Contol Eff: 90
Emissions: 0.10999999
Unit: LB
Auth Type Code: Not reported
Latitude: Not reported
Longitude: Not reported

Permit Type: Not reported
Permit Status: Not reported
Issue Date: Not reported
Expiration Date: Not reported
County Fips: 36029
DEC Id: 9140200089
Emission Unit Id: I00003
Process Id: I2AFP
Contaminant Name/cas: 7440382
Epa Control Code: 099

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Contol Eff:	90
Emissions:	0.01
Unit:	LB
Auth Type Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Permit Type:	Not reported
Permit Status:	Not reported
Issue Date:	Not reported
Expiration Date:	Not reported
County Fips:	36029
DEC Id:	9140200089
Emission Unit Id:	I00003
Process Id:	I2AFP
Contaminant Name/cas:	7439976
Epa Control Code:	099
Contol Eff:	90
Emissions:	11.1000003
Unit:	LB
Auth Type Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Permit Type:	Not reported
Permit Status:	Not reported
Issue Date:	Not reported
Expiration Date:	Not reported
County Fips:	36029
DEC Id:	9140200089
Emission Unit Id:	I00003
Process Id:	I2AFP
Contaminant Name/cas:	7439965
Epa Control Code:	099
Contol Eff:	90
Emissions:	0.10999999
Unit:	LB
Auth Type Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Permit Type:	Not reported
Permit Status:	Not reported
Issue Date:	Not reported
Expiration Date:	Not reported
County Fips:	36029
DEC Id:	9140200089
Emission Unit Id:	I00003
Process Id:	I2AFP
Contaminant Name/cas:	7439921
Epa Control Code:	099
Contol Eff:	90
Emissions:	0.1
Unit:	LB
Auth Type Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Permit Type:	Not reported
Permit Status:	Not reported
Issue Date:	Not reported
Expiration Date:	Not reported
County Fips:	36029
DEC Id:	9140200089
Emission Unit Id:	I00003
Process Id:	I2AFP
Contaminant Name/cas:	50000
Epa Control Code:	099
Contol Eff:	98
Emissions:	0.58999997
Unit:	LB
Auth Type Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported

Permit Type:	Not reported
Permit Status:	Not reported
Issue Date:	Not reported
Expiration Date:	Not reported
County Fips:	36029
DEC Id:	9140200089
Emission Unit Id:	I00003
Process Id:	I2AFP
Contaminant Name/cas:	16065831
Epa Control Code:	099
Contol Eff:	90
Emissions:	0.20999999
Unit:	LB
Auth Type Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported

Permit Type:	Not reported
Permit Status:	Not reported
Issue Date:	Not reported
Expiration Date:	Not reported
County Fips:	36029
DEC Id:	9140200089
Emission Unit Id:	I00003
Process Id:	I2AFP
Contaminant Name/cas:	132649
Epa Control Code:	099
Contol Eff:	98
Emissions:	0
Unit:	LB
Auth Type Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported

Permit Type:	Not reported
Permit Status:	Not reported
Issue Date:	Not reported
Expiration Date:	Not reported
County Fips:	36029
DEC Id:	9140200089

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Emission Unit Id:	I00003
Process Id:	I01FP
Contaminant Name/cas:	SO2
Epa Control Code:	Not reported
Contol Eff:	Not reported
Emissions:	0
Unit:	TON
Auth Type Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Permit Type:	Not reported
Permit Status:	Not reported
Issue Date:	Not reported
Expiration Date:	Not reported
County Fips:	36029
DEC Id:	9140200089
Emission Unit Id:	I00003
Process Id:	I01FP
Contaminant Name/cas:	NOX
Epa Control Code:	Not reported
Contol Eff:	Not reported
Emissions:	0
Unit:	TON
Auth Type Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Permit Type:	Not reported
Permit Status:	Not reported
Issue Date:	Not reported
Expiration Date:	Not reported
County Fips:	36029
DEC Id:	9140200089
Emission Unit Id:	I00003
Process Id:	I01FP
Contaminant Name/cas:	CO
Epa Control Code:	Not reported
Contol Eff:	Not reported
Emissions:	0
Unit:	TON
Auth Type Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Permit Type:	Not reported
Permit Status:	Not reported
Issue Date:	Not reported
Expiration Date:	Not reported
County Fips:	36029
DEC Id:	9140200089
Emission Unit Id:	I00003
Process Id:	I01FP
Contaminant Name/cas:	7439921
Epa Control Code:	Not reported
Contol Eff:	Not reported
Emissions:	0

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Unit:	LB
Auth Type Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Permit Type:	Not reported
Permit Status:	Not reported
Issue Date:	Not reported
Expiration Date:	Not reported
County Fips:	36029
DEC Id:	9140200089
Emission Unit Id:	EI0001
Process Id:	X02EI
Contaminant Name/cas:	VOC
Epa Control Code:	Not reported
Contol Eff:	Not reported
Emissions:	0.144925
Unit:	TON
Auth Type Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Permit Type:	Not reported
Permit Status:	Not reported
Issue Date:	Not reported
Expiration Date:	Not reported
County Fips:	36029
DEC Id:	9140200089
Emission Unit Id:	EI0001
Process Id:	X02EI
Contaminant Name/cas:	SO2
Epa Control Code:	Not reported
Contol Eff:	Not reported
Emissions:	0.01581
Unit:	TON
Auth Type Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Permit Type:	Not reported
Permit Status:	Not reported
Issue Date:	Not reported
Expiration Date:	Not reported
County Fips:	36029
DEC Id:	9140200089
Emission Unit Id:	EI0001
Process Id:	X02EI
Contaminant Name/cas:	PM10-PRI
Epa Control Code:	Not reported
Contol Eff:	Not reported
Emissions:	0.20024499
Unit:	TON
Auth Type Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Permit Type:	Not reported

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Permit Status:	Not reported
Issue Date:	Not reported
Expiration Date:	Not reported
County Fips:	36029
DEC Id:	9140200089
Emission Unit Id:	EI0001
Process Id:	X02EI
Contaminant Name/cas:	NOX
Epa Control Code:	Not reported
Contol Eff:	Not reported
Emissions:	2.635
Unit:	TON
Auth Type Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported

Permit Type:	Not reported
Permit Status:	Not reported
Issue Date:	Not reported
Expiration Date:	Not reported
County Fips:	36029
DEC Id:	9140200089
Emission Unit Id:	EI0001
Process Id:	X02EI
Contaminant Name/cas:	CO
Epa Control Code:	Not reported
Contol Eff:	Not reported
Emissions:	2.2133999
Unit:	TON
Auth Type Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported

Permit Type:	Not reported
Permit Status:	Not reported
Issue Date:	Not reported
Expiration Date:	Not reported
County Fips:	36029
DEC Id:	9140200089
Emission Unit Id:	EI0001
Process Id:	X02EI
Contaminant Name/cas:	7439921
Epa Control Code:	Not reported
Contol Eff:	Not reported
Emissions:	0.02
Unit:	LB
Auth Type Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported

Permit Type:	Not reported
Permit Status:	Not reported
Issue Date:	Not reported
Expiration Date:	Not reported
County Fips:	36029
DEC Id:	9140200089
Emission Unit Id:	EI0001

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Process Id: X01EI
Contaminant Name/cas: VOC
Epa Control Code: Not reported
Contol Eff: Not reported
Emissions: 0.00769999
Unit: TON
Auth Type Code: Not reported
Latitude: Not reported
Longitude: Not reported

Permit Type: Not reported
Permit Status: Not reported
Issue Date: Not reported
Expiration Date: Not reported
County Fips: 36029
DEC Id: 9140200089
Emission Unit Id: EI0001
Process Id: X01EI
Contaminant Name/cas: SO2
Epa Control Code: Not reported
Contol Eff: Not reported
Emissions: 0.00083999
Unit: TON
Auth Type Code: Not reported
Latitude: Not reported
Longitude: Not reported

Permit Type: Not reported
Permit Status: Not reported
Issue Date: Not reported
Expiration Date: Not reported
County Fips: 36029
DEC Id: 9140200089
Emission Unit Id: EI0001
Process Id: X01EI
Contaminant Name/cas: PM10-PRI
Epa Control Code: Not reported
Contol Eff: Not reported
Emissions: 0.010635
Unit: TON
Auth Type Code: Not reported
Latitude: Not reported
Longitude: Not reported

Permit Type: Not reported
Permit Status: Not reported
Issue Date: Not reported
Expiration Date: Not reported
County Fips: 36029
DEC Id: 9140200089
Emission Unit Id: EI0001
Process Id: X01EI
Contaminant Name/cas: NOX
Epa Control Code: Not reported
Contol Eff: Not reported
Emissions: 0.14
Unit: TON

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Auth Type Code: Not reported
Latitude: Not reported
Longitude: Not reported

Permit Type: Not reported
Permit Status: Not reported
Issue Date: Not reported
Expiration Date: Not reported
County Fips: 36029
DEC Id: 9140200089
Emission Unit Id: EI0001
Process Id: X01EI
Contaminant Name/cas: CO
Epa Control Code: Not reported
Contol Eff: Not reported
Emissions: 0.11759999
Unit: TON
Auth Type Code: Not reported
Latitude: Not reported
Longitude: Not reported

Permit Type: Not reported
Permit Status: Not reported
Issue Date: Not reported
Expiration Date: Not reported
County Fips: 36029
DEC Id: 9140200089
Emission Unit Id: EI0001
Process Id: X01EI
Contaminant Name/cas: 7439921
Epa Control Code: Not reported
Contol Eff: Not reported
Emissions: 0.0014
Unit: LB
Auth Type Code: Not reported
Latitude: Not reported
Longitude: Not reported

Permit Type: Not reported
Permit Status: Not reported
Issue Date: Not reported
Expiration Date: Not reported
County Fips: 36029
DEC Id: 9140200089
Emission Unit Id: E00004
Process Id: E02FP
Contaminant Name/cas: 75218
Epa Control Code: 019
Contol Eff: 99.9
Emissions: 0.01
Unit: LB
Auth Type Code: Not reported
Latitude: Not reported
Longitude: Not reported

Permit Type: Not reported
Permit Status: Not reported

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Issue Date: Not reported
Expiration Date: Not reported
County Fips: 36029
DEC Id: 9140200089
Emission Unit Id: E00004
Process Id: E01FP
Contaminant Name/cas: 75218
Epa Control Code: 019
Contol Eff: 99.9
Emissions: 0.33000001
Unit: LB
Auth Type Code: Not reported
Latitude: Not reported
Longitude: Not reported

Permit Type: Not reported
Permit Status: Not reported
Issue Date: Not reported
Expiration Date: Not reported
County Fips: 36029
DEC Id: 9140200089
Emission Unit Id: B00001
Process Id: B02FP
Contaminant Name/cas: VOC
Epa Control Code: Not reported
Contol Eff: Not reported
Emissions: 0.20249
Unit: TON
Auth Type Code: Not reported
Latitude: Not reported
Longitude: Not reported

Permit Type: Not reported
Permit Status: Not reported
Issue Date: Not reported
Expiration Date: Not reported
County Fips: 36029
DEC Id: 9140200089
Emission Unit Id: B00001
Process Id: B02FP
Contaminant Name/cas: SO2
Epa Control Code: Not reported
Contol Eff: Not reported
Emissions: 43.8501015
Unit: TON
Auth Type Code: Not reported
Latitude: Not reported
Longitude: Not reported

Permit Type: Not reported
Permit Status: Not reported
Issue Date: Not reported
Expiration Date: Not reported
County Fips: 36029
DEC Id: 9140200089
Emission Unit Id: B00001
Process Id: B02FP

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Contaminant Name/cas: PM10-PRI
Epa Control Code: Not reported
Contol Eff: Not reported
Emissions: 1.97343005
Unit: TON
Auth Type Code: Not reported
Latitude: Not reported
Longitude: Not reported

Permit Type: Not reported
Permit Status: Not reported
Issue Date: Not reported
Expiration Date: Not reported
County Fips: 36029
DEC Id: 9140200089
Emission Unit Id: B00001
Process Id: B02FP
Contaminant Name/cas: NOX
Epa Control Code: Not reported
Contol Eff: Not reported
Emissions: 8.75140035
Unit: TON
Auth Type Code: Not reported
Latitude: Not reported
Longitude: Not reported

Permit Type: Not reported
Permit Status: Not reported
Issue Date: Not reported
Expiration Date: Not reported
County Fips: 36029
DEC Id: 9140200089
Emission Unit Id: B00001
Process Id: B02FP
Contaminant Name/cas: NH3
Epa Control Code: Not reported
Contol Eff: Not reported
Emissions: 297.920013
Unit: LB
Auth Type Code: Not reported
Latitude: Not reported
Longitude: Not reported

Permit Type: Not reported
Permit Status: Not reported
Issue Date: Not reported
Expiration Date: Not reported
County Fips: 36029
DEC Id: 9140200089
Emission Unit Id: B00001
Process Id: B02FP
Contaminant Name/cas: CO
Epa Control Code: Not reported
Contol Eff: Not reported
Emissions: 0.931
Unit: TON
Auth Type Code: Not reported

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Latitude:	Not reported
Longitude:	Not reported
Permit Type:	Not reported
Permit Status:	Not reported
Issue Date:	Not reported
Expiration Date:	Not reported
County Fips:	36029
DEC Id:	9140200089
Emission Unit Id:	B00001
Process Id:	B02FP
Contaminant Name/cas:	7782492
Epa Control Code:	Not reported
Contol Eff:	Not reported
Emissions:	0.01
Unit:	LB
Auth Type Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Permit Type:	Not reported
Permit Status:	Not reported
Issue Date:	Not reported
Expiration Date:	Not reported
County Fips:	36029
DEC Id:	9140200089
Emission Unit Id:	B00001
Process Id:	B02FP
Contaminant Name/cas:	7440417
Epa Control Code:	Not reported
Contol Eff:	Not reported
Emissions:	0.0016
Unit:	LB
Auth Type Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Permit Type:	Not reported
Permit Status:	Not reported
Issue Date:	Not reported
Expiration Date:	Not reported
County Fips:	36029
DEC Id:	9140200089
Emission Unit Id:	EI0001
Process Id:	X01EI
Contaminant Name/cas:	PM25-PRI
Epa Control Code:	Not reported
Contol Eff:	Not reported
Emissions:	0.0106393
Unit:	TON
Auth Type Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Permit Type:	Not reported
Permit Status:	Not reported
Issue Date:	Not reported

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Expiration Date: Not reported
County Fips: 36029
DEC Id: 9140200089
Emission Unit Id: B00001
Process Id: B01FP
Contaminant Name/cas: PM25-PRI
Epa Control Code: Not reported
Contol Eff: Not reported
Emissions: 0.29771711
Unit: TON
Auth Type Code: Not reported
Latitude: Not reported
Longitude: Not reported

Permit Type: Not reported
Permit Status: Not reported
Issue Date: Not reported
Expiration Date: Not reported
County Fips: 36029
DEC Id: 9140200089
Emission Unit Id: EI0001
Process Id: X02EI
Contaminant Name/cas: PM25-PRI
Epa Control Code: Not reported
Contol Eff: Not reported
Emissions: 0.20024682
Unit: TON
Auth Type Code: Not reported
Latitude: Not reported
Longitude: Not reported

Permit Type: Not reported
Permit Status: Not reported
Issue Date: Not reported
Expiration Date: Not reported
County Fips: 36029
DEC Id: 9140200089
Emission Unit Id: B00001
Process Id: B02FP
Contaminant Name/cas: PM25-PRI
Epa Control Code: Not reported
Contol Eff: Not reported
Emissions: 0.73283471
Unit: TON
Auth Type Code: Not reported
Latitude: Not reported
Longitude: Not reported

Permit Type: Not reported
Permit Status: Not reported
Issue Date: Not reported
Expiration Date: Not reported
County Fips: 36029
DEC Id: 9140200089
Emission Unit Id: B00001
Process Id: B01FP
Contaminant Name/cas: 7440020

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Epa Control Code: Not reported
Contol Eff: Not reported
Emissions: 0.15999999
Unit: LB
Auth Type Code: Not reported
Latitude: Not reported
Longitude: Not reported

Permit Type: Not reported
Permit Status: Not reported
Issue Date: Not reported
Expiration Date: Not reported
County Fips: 36029
DEC Id: 9140200089
Emission Unit Id: B00001
Process Id: B01FP
Contaminant Name/cas: 7439976
Epa Control Code: Not reported
Contol Eff: Not reported
Emissions: 0.02
Unit: LB
Auth Type Code: Not reported
Latitude: Not reported
Longitude: Not reported

Permit Type: Not reported
Permit Status: Not reported
Issue Date: Not reported
Expiration Date: Not reported
County Fips: 36029
DEC Id: 9140200089
Emission Unit Id: B00001
Process Id: B01FP
Contaminant Name/cas: 7439965
Epa Control Code: Not reported
Contol Eff: Not reported
Emissions: 0.02
Unit: LB
Auth Type Code: Not reported
Latitude: Not reported
Longitude: Not reported

Permit Type: Not reported
Permit Status: Not reported
Issue Date: Not reported
Expiration Date: Not reported
County Fips: 36029
DEC Id: 9140200089
Emission Unit Id: B00001
Process Id: B01FP
Contaminant Name/cas: 7439921
Epa Control Code: Not reported
Contol Eff: Not reported
Emissions: 0.02999999
Unit: LB
Auth Type Code: Not reported
Latitude: Not reported

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Longitude: Not reported

NY MANIFEST:
Country: USA
EPA ID: NYD074042292
Facility Status: Not reported
Location Address 1: 100 HIGH ST.
Code: BP
Location Address 2: Not reported
Total Tanks: Not reported
Location City: BUFFALO
Location State: NY
Location Zip: 14203
Location Zip 4: Not reported

NY MANIFEST:
EPAID: NYD074042292
Mailing Name: BUFFALO GENERAL HOSPITAL
Mailing Contact: WILLIAM E BAMBERG
Mailing Address 1: 100 HIGH STREET
Mailing Address 2: Not reported
Mailing City: BUFFALO
Mailing State: NY
Mailing Zip: 14203
Mailing Zip 4: Not reported
Mailing Country: USA
Mailing Phone: 7168451602

NY MANIFEST:
Document ID: Not reported
Manifest Status: Not reported
seq: Not reported
Year: 2017
Trans1 State ID: MNS000110924
Trans2 State ID: Not reported
Generator Ship Date: 11/13/2017
Trans1 Recv Date: 11/13/2017
Trans2 Recv Date: Not reported
TSD Site Recv Date: 11/22/2017
Part A Recv Date: Not reported
Part B Recv Date: Not reported
Generator EPA ID: NYD074042292
Trans1 EPA ID: Not reported
Trans2 EPA ID: Not reported
TSDF ID 1: MID980615298
TSDF ID 2: Not reported
Manifest Tracking Number: 017482961JJK
Import Indicator: N
Export Indicator: N
Discr Quantity Indicator: N
Discr Type Indicator: N
Discr Residue Indicator: N
Discr Partial Reject Indicator: N
Discr Full Reject Indicator: N
Manifest Ref Number: Not reported
Alt Facility RCRA ID: Not reported
Alt Facility Sign Date: Not reported

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

MGMT Method Type Code:	H141
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Quantity:	1
Units:	P - Pounds
Number of Containers:	1
Container Type:	CF - Fiber or plastic boxes, cartons
Handling Method:	L Landfill.
Specific Gravity:	1
Waste Code:	D002
Waste Code 1_2:	Not reported
Waste Code 1_3:	Not reported
Waste Code 1_4:	Not reported
Waste Code 1_5:	Not reported
Waste Code 1_6:	Not reported

Click this hyperlink while viewing on your computer to access
516 additional NY_MANIFEST: record(s) in the EDR Site Report.

NJ MANIFEST:

EPA Id:	NYD074042292
Mail Address:	HIGH ST
Mail City/State/Zip:	BUFFALO, NY 14203
Facility Phone:	Not reported
Emergency Phone:	Not reported
Contact:	TIMOTHY R BATT
Comments:	Not reported
SIC Code:	Not reported
County:	NY029
Municipal:	Not reported
Previous EPA Id:	Not reported
Gen Flag:	Not reported
Trans Flag:	Not reported
TSDF Flag:	Not reported
Name Change:	Not reported
Date Change:	Not reported

Manifest:

Manifest Number:	000965093VES
EPA ID:	NYD074042292
Date Shipped:	3/25/2016
TSDF EPA ID:	NJD980536593
Transporter EPA ID:	NJD080631369
Transporter 2 EPA ID:	Not reported
Transporter 3 EPA ID:	Not reported
Transporter 4 EPA ID:	Not reported
Transporter 5 EPA ID:	Not reported
Transporter 6 EPA ID:	Not reported
Transporter 7 EPA ID:	Not reported
Transporter 8 EPA ID:	Not reported
Transporter 9 EPA ID:	Not reported
Transporter 10 EPA ID:	Not reported

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Date Trans1 Transported Waste:	Not reported
Date Trans2 Transported Waste:	Not reported
Date Trans3 Transported Waste:	Not reported
Date Trans4 Transported Waste:	Not reported
Date Trans5 Transported Waste:	Not reported
Date Trans6 Transported Waste:	Not reported
Date Trans7 Transported Waste:	Not reported
Date Trans8 Transported Waste:	Not reported
Date Trans9 Transported Waste:	Not reported
Date Trans10 Transported Waste:	Not reported
Date TSDF Received Waste:	Not reported
Generator EPA Facility Name:	BUFFALO GENERAL HOSPITAL
Transporter-1 EPA Facility Name:	VEOLIA ES TECHNICAL SOLUTIONS CORP
TSDF EPA Facility Name:	VEOLIA ES TECHNICAL SOLUTIONS LLC
QTY Units:	Pounds
Transporter SEQ ID:	Not reported
Transporter-1 Date:	3/25/2016
Waste SEQ ID:	1
Waste Type Code 2:	Not reported
Waste Type Code 3:	Not reported
Waste Type Code 4:	Not reported
Waste Type Code 5:	Not reported
Waste Type Code 6:	Not reported
Date Accepted:	4/8/2016
Manifest Discrepancy Type:	Not reported
Data Entry Number:	Not reported
Was Load Rejected:	BUFFALO, NY 14203
Reason Load Was Rejected:	Not reported

Manifest Number:	000614395VES
EPA ID:	NYD074042292
Date Shipped:	5/14/2013
TSDF EPA ID:	NJD980536593
Transporter EPA ID:	NJD080631369
Transporter 2 EPA ID:	Not reported
Transporter 3 EPA ID:	Not reported
Transporter 4 EPA ID:	Not reported
Transporter 5 EPA ID:	Not reported
Transporter 6 EPA ID:	Not reported
Transporter 7 EPA ID:	Not reported
Transporter 8 EPA ID:	Not reported
Transporter 9 EPA ID:	Not reported
Transporter 10 EPA ID:	Not reported
Date Trans1 Transported Waste:	Not reported
Date Trans2 Transported Waste:	Not reported
Date Trans3 Transported Waste:	Not reported
Date Trans4 Transported Waste:	Not reported
Date Trans5 Transported Waste:	Not reported
Date Trans6 Transported Waste:	Not reported
Date Trans7 Transported Waste:	Not reported
Date Trans8 Transported Waste:	Not reported
Date Trans9 Transported Waste:	Not reported
Date Trans10 Transported Waste:	Not reported
Date TSDF Received Waste:	Not reported
TSDF EPA Facility Name:	Not reported
QTY Units:	Not reported
Transporter SEQ ID:	Not reported

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Transporter-1 Date:	Not reported
Waste SEQ ID:	Not reported
Waste Type Code 2:	Not reported
Waste Type Code 3:	Not reported
Waste Type Code 4:	Not reported
Waste Type Code 5:	Not reported
Waste Type Code 6:	Not reported
Date Accepted:	Not reported
Manifest Discrepancy Type:	Not reported
Data Entry Number:	Not reported
Was Load Rejected:	BUFFALO, NY 14203
Reason Load Was Rejected:	Not reported

Waste:

Manifest Year:	Not reported
Waste Code:	D001
Hand Code:	Not reported
Quantity:	150.00 Pounds

Manifest Year:	Not reported
Waste Code:	U002 U015 U035 U010 U034
Hand Code:	Not reported
Quantity:	300.00 Pounds

Manifest Year:	Not reported
Waste Code:	U002 U015 U035 U010 U034
Hand Code:	Not reported
Quantity:	600.00 Pounds

Manifest Number:	000466498VES
EPA ID:	NYD074042292
Date Shipped:	3/18/2011
TSDF EPA ID:	NJD980536593
Transporter EPA ID:	NJD080631369
Transporter 2 EPA ID:	NJD054126164
Transporter 3 EPA ID:	Not reported
Transporter 4 EPA ID:	Not reported
Transporter 5 EPA ID:	Not reported
Transporter 6 EPA ID:	Not reported
Transporter 7 EPA ID:	Not reported
Transporter 8 EPA ID:	Not reported
Transporter 9 EPA ID:	Not reported
Transporter 10 EPA ID:	Not reported
Date Trans1 Transported Waste:	Not reported
Date Trans2 Transported Waste:	Not reported
Date Trans3 Transported Waste:	Not reported
Date Trans4 Transported Waste:	Not reported
Date Trans5 Transported Waste:	Not reported
Date Trans6 Transported Waste:	Not reported
Date Trans7 Transported Waste:	Not reported
Date Trans8 Transported Waste:	Not reported
Date Trans9 Transported Waste:	Not reported
Date Trans10 Transported Waste:	Not reported
Date TSDF Received Waste:	Not reported
TSDF EPA Facility Name:	Not reported
QTY Units:	Not reported
Transporter SEQ ID:	Not reported

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Transporter-1 Date:	Not reported
Waste SEQ ID:	Not reported
Waste Type Code 2:	Not reported
Waste Type Code 3:	Not reported
Waste Type Code 4:	Not reported
Waste Type Code 5:	Not reported
Waste Type Code 6:	Not reported
Date Accepted:	Not reported
Manifest Discrepancy Type:	Not reported
Data Entry Number:	Not reported
Was Load Rejected:	BUFFALO, NY 14203
Reason Load Was Rejected:	Not reported

Waste:

Manifest Year:	Not reported
Waste Code:	U002
Hand Code:	H141
Quantity:	484.00 Pounds

Manifest Year:	Not reported
Waste Code:	D001
Hand Code:	H141
Quantity:	20.00 Pounds

Manifest Number:	000571144VES
EPA ID:	NYD074042292
Date Shipped:	4/13/2012
TSDF EPA ID:	NJD980536593
Transporter EPA ID:	NJD080631369
Transporter 2 EPA ID:	Not reported
Transporter 3 EPA ID:	Not reported
Transporter 4 EPA ID:	Not reported
Transporter 5 EPA ID:	Not reported
Transporter 6 EPA ID:	Not reported
Transporter 7 EPA ID:	Not reported
Transporter 8 EPA ID:	Not reported
Transporter 9 EPA ID:	Not reported
Transporter 10 EPA ID:	Not reported
Date Trans1 Transported Waste:	Not reported
Date Trans2 Transported Waste:	Not reported
Date Trans3 Transported Waste:	Not reported
Date Trans4 Transported Waste:	Not reported
Date Trans5 Transported Waste:	Not reported
Date Trans6 Transported Waste:	Not reported
Date Trans7 Transported Waste:	Not reported
Date Trans8 Transported Waste:	Not reported
Date Trans9 Transported Waste:	Not reported
Date Trans10 Transported Waste:	Not reported
Date TSDF Received Waste:	Not reported
TSDF EPA Facility Name:	Not reported
QTY Units:	Not reported
Transporter SEQ ID:	Not reported
Transporter-1 Date:	Not reported
Waste SEQ ID:	Not reported
Waste Type Code 2:	Not reported
Waste Type Code 3:	Not reported
Waste Type Code 4:	Not reported

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Waste Type Code 5:	Not reported
Waste Type Code 6:	Not reported
Date Accepted:	Not reported
Manifest Discrepancy Type:	Not reported
Data Entry Number:	Not reported
Was Load Rejected:	BUFFALO, NY 14203
Reason Load Was Rejected:	Not reported

Waste:

Manifest Year:	Not reported
Waste Code:	U002 U015 U035 U010 U034
Hand Code:	Not reported
Quantity:	1,017.00 Pounds

Manifest Year:	Not reported
Waste Code:	D001
Hand Code:	Not reported
Quantity:	32.00 Pounds

Manifest Number:	000521670VES
EPA ID:	NYD074042292
Date Shipped:	5/20/2011
TSDF EPA ID:	NJD980536593
Transporter EPA ID:	NJD080631369
Transporter 2 EPA ID:	NJD054126164
Transporter 3 EPA ID:	Not reported
Transporter 4 EPA ID:	Not reported
Transporter 5 EPA ID:	Not reported
Transporter 6 EPA ID:	Not reported
Transporter 7 EPA ID:	Not reported
Transporter 8 EPA ID:	Not reported
Transporter 9 EPA ID:	Not reported
Transporter 10 EPA ID:	Not reported
Date Trans1 Transported Waste:	Not reported
Date Trans2 Transported Waste:	Not reported
Date Trans3 Transported Waste:	Not reported
Date Trans4 Transported Waste:	Not reported
Date Trans5 Transported Waste:	Not reported
Date Trans6 Transported Waste:	Not reported
Date Trans7 Transported Waste:	Not reported
Date Trans8 Transported Waste:	Not reported
Date Trans9 Transported Waste:	Not reported
Date Trans10 Transported Waste:	Not reported
Date TSDF Received Waste:	Not reported
TSDF EPA Facility Name:	Not reported
QTY Units:	Not reported
Transporter SEQ ID:	Not reported
Transporter-1 Date:	Not reported
Waste SEQ ID:	Not reported
Waste Type Code 2:	Not reported
Waste Type Code 3:	Not reported
Waste Type Code 4:	Not reported
Waste Type Code 5:	Not reported
Waste Type Code 6:	Not reported
Date Accepted:	Not reported
Manifest Discrepancy Type:	Not reported
Data Entry Number:	Not reported

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Was Load Rejected: BUFFALO, NY 14203
Reason Load Was Rejected: Not reported

Waste:
Manifest Year: Not reported
Waste Code: U002
Hand Code: H141
Quantity: 781.00 Pounds

Manifest Year: Not reported
Waste Code: D001
Hand Code: H141
Quantity: 18.00 Pounds

Manifest Number: 000672631VES
EPA ID: NYD074042292
Date Shipped: 11/1/2012
TSDF EPA ID: NJD980536593
Transporter EPA ID: NJD080631369
Transporter 2 EPA ID: Not reported
Transporter 3 EPA ID: Not reported
Transporter 4 EPA ID: Not reported
Transporter 5 EPA ID: Not reported
Transporter 6 EPA ID: Not reported
Transporter 7 EPA ID: Not reported
Transporter 8 EPA ID: Not reported
Transporter 9 EPA ID: Not reported
Transporter 10 EPA ID: Not reported
Date Trans1 Transported Waste: Not reported
Date Trans2 Transported Waste: Not reported
Date Trans3 Transported Waste: Not reported
Date Trans4 Transported Waste: Not reported
Date Trans5 Transported Waste: Not reported
Date Trans6 Transported Waste: Not reported
Date Trans7 Transported Waste: Not reported
Date Trans8 Transported Waste: Not reported
Date Trans9 Transported Waste: Not reported
Date Trans10 Transported Waste: Not reported
Date TSDF Received Waste: Not reported
TSDF EPA Facility Name: Not reported
QTY Units: Not reported
Transporter SEQ ID: Not reported
Transporter-1 Date: Not reported
Waste SEQ ID: Not reported
Waste Type Code 2: Not reported
Waste Type Code 3: Not reported
Waste Type Code 4: Not reported
Waste Type Code 5: Not reported
Waste Type Code 6: Not reported
Date Accepted: Not reported
Manifest Discrepancy Type: Not reported
Data Entry Number: Not reported
Was Load Rejected: BUFFALO, NY 14203
Reason Load Was Rejected: Not reported

Waste:
Manifest Year: Not reported

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Waste Code:	U002 U015 U035 U010 U034
Hand Code:	Not reported
Quantity:	375.00 Pounds
Manifest Year:	Not reported
Waste Code:	D001
Hand Code:	Not reported
Quantity:	65.00 Pounds
Manifest Number:	000570907VES
EPA ID:	NYD074042292
Date Shipped:	10/28/2011
TSDF EPA ID:	NJD980536593
Transporter EPA ID:	NJD080631369
Transporter 2 EPA ID:	NJD054126164
Transporter 3 EPA ID:	Not reported
Transporter 4 EPA ID:	Not reported
Transporter 5 EPA ID:	Not reported
Transporter 6 EPA ID:	Not reported
Transporter 7 EPA ID:	Not reported
Transporter 8 EPA ID:	Not reported
Transporter 9 EPA ID:	Not reported
Transporter 10 EPA ID:	Not reported
Date Trans1 Transported Waste:	Not reported
Date Trans2 Transported Waste:	Not reported
Date Trans3 Transported Waste:	Not reported
Date Trans4 Transported Waste:	Not reported
Date Trans5 Transported Waste:	Not reported
Date Trans6 Transported Waste:	Not reported
Date Trans7 Transported Waste:	Not reported
Date Trans8 Transported Waste:	Not reported
Date Trans9 Transported Waste:	Not reported
Date Trans10 Transported Waste:	Not reported
Date TSDF Received Waste:	Not reported
TSDF EPA Facility Name:	Not reported
QTY Units:	Not reported
Transporter SEQ ID:	Not reported
Transporter-1 Date:	Not reported
Waste SEQ ID:	Not reported
Waste Type Code 2:	Not reported
Waste Type Code 3:	Not reported
Waste Type Code 4:	Not reported
Waste Type Code 5:	Not reported
Waste Type Code 6:	Not reported
Date Accepted:	Not reported
Manifest Discrepancy Type:	Not reported
Data Entry Number:	Not reported
Was Load Rejected:	BUFFALO, NY 14203
Reason Load Was Rejected:	Not reported

Waste:

Manifest Year:	Not reported
Waste Code:	D001
Hand Code:	H141
Quantity:	4.00 Pounds
Manifest Year:	Not reported

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Waste Code:	U002
Hand Code:	H141
Quantity:	775.00 Pounds
Manifest Year:	Not reported
Waste Code:	D002
Hand Code:	H141
Quantity:	41.00 Pounds
Manifest Year:	Not reported
Waste Code:	D001
Hand Code:	H141
Quantity:	14.00 Pounds
Manifest Number:	000521995VES
EPA ID:	NYD074042292
Date Shipped:	8/4/2011
TSDF EPA ID:	NJD980536593
Transporter EPA ID:	NJD080631369
Transporter 2 EPA ID:	NJD054126164
Transporter 3 EPA ID:	Not reported
Transporter 4 EPA ID:	Not reported
Transporter 5 EPA ID:	Not reported
Transporter 6 EPA ID:	Not reported
Transporter 7 EPA ID:	Not reported
Transporter 8 EPA ID:	Not reported
Transporter 9 EPA ID:	Not reported
Transporter 10 EPA ID:	Not reported
Date Trans1 Transported Waste:	Not reported
Date Trans2 Transported Waste:	Not reported
Date Trans3 Transported Waste:	Not reported
Date Trans4 Transported Waste:	Not reported
Date Trans5 Transported Waste:	Not reported
Date Trans6 Transported Waste:	Not reported
Date Trans7 Transported Waste:	Not reported
Date Trans8 Transported Waste:	Not reported
Date Trans9 Transported Waste:	Not reported
Date Trans10 Transported Waste:	Not reported
Date TSDF Received Waste:	Not reported
TSDF EPA Facility Name:	Not reported
QTY Units:	Not reported
Transporter SEQ ID:	Not reported
Transporter-1 Date:	Not reported
Waste SEQ ID:	Not reported
Waste Type Code 2:	Not reported
Waste Type Code 3:	Not reported
Waste Type Code 4:	Not reported
Waste Type Code 5:	Not reported
Waste Type Code 6:	Not reported
Date Accepted:	Not reported
Manifest Discrepancy Type:	Not reported
Data Entry Number:	Not reported
Was Load Rejected:	BUFFALO, NY 14203
Reason Load Was Rejected:	Not reported

Waste:

Manifest Year:	Not reported

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Waste Code:	U002
Hand Code:	H141
Quantity:	641.00 Pounds
Manifest Year:	Not reported
Waste Code:	D001
Hand Code:	H141
Quantity:	24.00 Pounds
Manifest Number:	000614612VES
EPA ID:	NYD074042292
Date Shipped:	2/24/2015
TSDF EPA ID:	NJD980536593
Transporter EPA ID:	NJD080631369
Transporter 2 EPA ID:	Not reported
Transporter 3 EPA ID:	Not reported
Transporter 4 EPA ID:	Not reported
Transporter 5 EPA ID:	Not reported
Transporter 6 EPA ID:	Not reported
Transporter 7 EPA ID:	Not reported
Transporter 8 EPA ID:	Not reported
Transporter 9 EPA ID:	Not reported
Transporter 10 EPA ID:	Not reported
Date Trans1 Transported Waste:	Not reported
Date Trans2 Transported Waste:	Not reported
Date Trans3 Transported Waste:	Not reported
Date Trans4 Transported Waste:	Not reported
Date Trans5 Transported Waste:	Not reported
Date Trans6 Transported Waste:	Not reported
Date Trans7 Transported Waste:	Not reported
Date Trans8 Transported Waste:	Not reported
Date Trans9 Transported Waste:	Not reported
Date Trans10 Transported Waste:	Not reported
Date TSDF Received Waste:	Not reported
TSDF EPA Facility Name:	Not reported
QTY Units:	Not reported
Transporter SEQ ID:	Not reported
Transporter-1 Date:	Not reported
Waste SEQ ID:	Not reported
Waste Type Code 2:	Not reported
Waste Type Code 3:	Not reported
Waste Type Code 4:	Not reported
Waste Type Code 5:	Not reported
Waste Type Code 6:	Not reported
Date Accepted:	Not reported
Manifest Discrepancy Type:	Not reported
Data Entry Number:	Not reported
Was Load Rejected:	BUFFALO, NY 14203
Reason Load Was Rejected:	Not reported
Manifest Number:	000614963VES
EPA ID:	NYD074042292
Date Shipped:	5/19/2015
TSDF EPA ID:	NJD980536593
Transporter EPA ID:	NJD080631369
Transporter 2 EPA ID:	Not reported

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Transporter 3 EPA ID:	Not reported
Transporter 4 EPA ID:	Not reported
Transporter 5 EPA ID:	Not reported
Transporter 6 EPA ID:	Not reported
Transporter 7 EPA ID:	Not reported
Transporter 8 EPA ID:	Not reported
Transporter 9 EPA ID:	Not reported
Transporter 10 EPA ID:	Not reported
Date Trans1 Transported Waste:	Not reported
Date Trans2 Transported Waste:	Not reported
Date Trans3 Transported Waste:	Not reported
Date Trans4 Transported Waste:	Not reported
Date Trans5 Transported Waste:	Not reported
Date Trans6 Transported Waste:	Not reported
Date Trans7 Transported Waste:	Not reported
Date Trans8 Transported Waste:	Not reported
Date Trans9 Transported Waste:	Not reported
Date Trans10 Transported Waste:	Not reported
Date TSDF Received Waste:	Not reported
TSDF EPA Facility Name:	Not reported
QTY Units:	Not reported
Transporter SEQ ID:	Not reported
Transporter-1 Date:	Not reported
Waste SEQ ID:	Not reported
Waste Type Code 2:	Not reported
Waste Type Code 3:	Not reported
Waste Type Code 4:	Not reported
Waste Type Code 5:	Not reported
Waste Type Code 6:	Not reported
Date Accepted:	Not reported
Manifest Discrepancy Type:	Not reported
Data Entry Number:	Not reported
Was Load Rejected:	BUFFALO, NY 14203
Reason Load Was Rejected:	Not reported
Manifest Number:	000623809VES
EPA ID:	NYD074042292
Date Shipped:	7/31/2012
TSDF EPA ID:	NJD980536593
Transporter EPA ID:	NJD080631369
Transporter 2 EPA ID:	Not reported
Transporter 3 EPA ID:	Not reported
Transporter 4 EPA ID:	Not reported
Transporter 5 EPA ID:	Not reported
Transporter 6 EPA ID:	Not reported
Transporter 7 EPA ID:	Not reported
Transporter 8 EPA ID:	Not reported
Transporter 9 EPA ID:	Not reported
Transporter 10 EPA ID:	Not reported
Date Trans1 Transported Waste:	Not reported
Date Trans2 Transported Waste:	Not reported
Date Trans3 Transported Waste:	Not reported
Date Trans4 Transported Waste:	Not reported
Date Trans5 Transported Waste:	Not reported
Date Trans6 Transported Waste:	Not reported
Date Trans7 Transported Waste:	Not reported
Date Trans8 Transported Waste:	Not reported

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Date Trans9 Transported Waste: Not reported
Date Trans10 Transported Waste: Not reported
Date TSDF Received Waste: Not reported
TSDF EPA Facility Name: Not reported
QTY Units: Not reported
Transporter SEQ ID: Not reported
Transporter-1 Date: Not reported
Waste SEQ ID: Not reported
Waste Type Code 2: Not reported
Waste Type Code 3: Not reported
Waste Type Code 4: Not reported
Waste Type Code 5: Not reported
Waste Type Code 6: Not reported
Date Accepted: Not reported
Manifest Discrepancy Type: Not reported
Data Entry Number: Not reported
Was Load Rejected: BUFFALO, NY 14203
Reason Load Was Rejected: Not reported

Waste:
Manifest Year: Not reported
Waste Code: D001
Hand Code: Not reported
Quantity: 37.00 Pounds

Manifest Year: Not reported
Waste Code: U002 U015 U035 U010 U034
Hand Code: Not reported
Quantity: 533.00 Pounds

Manifest Year: Not reported
Waste Code: U204 D010 D002
Hand Code: Not reported
Quantity: 7.00 Pounds

Manifest Year: Not reported
Waste Code: D001 D011 D007
Hand Code: Not reported
Quantity: 4.00 Pounds

Manifest Year: Not reported
Waste Code: U002 U015 U035 U010 U034
Hand Code: Not reported
Quantity: 321.00 Pounds

Manifest Number: 000466379VES
EPA ID: NYD074042292
Date Shipped: 1/31/2011
TSDF EPA ID: NJD980536593
Transporter EPA ID: NJD080631369
Transporter 2 EPA ID: NJD054126164
Transporter 3 EPA ID: Not reported
Transporter 4 EPA ID: Not reported
Transporter 5 EPA ID: Not reported
Transporter 6 EPA ID: Not reported
Transporter 7 EPA ID: Not reported
Transporter 8 EPA ID: Not reported

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Transporter 9 EPA ID:	Not reported
Transporter 10 EPA ID:	Not reported
Date Trans1 Transported Waste:	Not reported
Date Trans2 Transported Waste:	Not reported
Date Trans3 Transported Waste:	Not reported
Date Trans4 Transported Waste:	Not reported
Date Trans5 Transported Waste:	Not reported
Date Trans6 Transported Waste:	Not reported
Date Trans7 Transported Waste:	Not reported
Date Trans8 Transported Waste:	Not reported
Date Trans9 Transported Waste:	Not reported
Date Trans10 Transported Waste:	Not reported
Date TSDF Received Waste:	Not reported
TSDF EPA Facility Name:	Not reported
QTY Units:	Not reported
Transporter SEQ ID:	Not reported
Transporter-1 Date:	Not reported
Waste SEQ ID:	Not reported
Waste Type Code 2:	Not reported
Waste Type Code 3:	Not reported
Waste Type Code 4:	Not reported
Waste Type Code 5:	Not reported
Waste Type Code 6:	Not reported
Date Accepted:	Not reported
Manifest Discrepancy Type:	Not reported
Data Entry Number:	Not reported
Was Load Rejected:	BUFFALO, NY 14203
Reason Load Was Rejected:	Not reported

Waste:

Manifest Year:	Not reported
Waste Code:	U002
Hand Code:	H141
Quantity:	475.00 Pounds

Manifest Year:	Not reported
Waste Code:	D001
Hand Code:	H141
Quantity:	20.00 Pounds

Manifest Number:	000616757VES
EPA ID:	NYD074042292
Date Shipped:	12/28/2015
TSDF EPA ID:	NJD980536593
Transporter EPA ID:	NJD080631369
Transporter 2 EPA ID:	Not reported
Transporter 3 EPA ID:	Not reported
Transporter 4 EPA ID:	Not reported
Transporter 5 EPA ID:	Not reported
Transporter 6 EPA ID:	Not reported
Transporter 7 EPA ID:	Not reported
Transporter 8 EPA ID:	Not reported
Transporter 9 EPA ID:	Not reported
Transporter 10 EPA ID:	Not reported
Date Trans1 Transported Waste:	Not reported
Date Trans2 Transported Waste:	Not reported
Date Trans3 Transported Waste:	Not reported

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Date Trans4 Transported Waste:	Not reported
Date Trans5 Transported Waste:	Not reported
Date Trans6 Transported Waste:	Not reported
Date Trans7 Transported Waste:	Not reported
Date Trans8 Transported Waste:	Not reported
Date Trans9 Transported Waste:	Not reported
Date Trans10 Transported Waste:	Not reported
Date TSDF Received Waste:	Not reported
TSDF EPA Facility Name:	Not reported
QTY Units:	Not reported
Transporter SEQ ID:	Not reported
Transporter-1 Date:	Not reported
Waste SEQ ID:	Not reported
Waste Type Code 2:	Not reported
Waste Type Code 3:	Not reported
Waste Type Code 4:	Not reported
Waste Type Code 5:	Not reported
Waste Type Code 6:	Not reported
Date Accepted:	Not reported
Manifest Discrepancy Type:	Not reported
Data Entry Number:	Not reported
Was Load Rejected:	BUFFALO, NY 14203
Reason Load Was Rejected:	Not reported

Manifest Number:	000616530VES
EPA ID:	NYD074042292
Date Shipped:	10/6/2015
TSDF EPA ID:	NJD980536593
Transporter EPA ID:	NJD080631369
Transporter 2 EPA ID:	Not reported
Transporter 3 EPA ID:	Not reported
Transporter 4 EPA ID:	Not reported
Transporter 5 EPA ID:	Not reported
Transporter 6 EPA ID:	Not reported
Transporter 7 EPA ID:	Not reported
Transporter 8 EPA ID:	Not reported
Transporter 9 EPA ID:	Not reported
Transporter 10 EPA ID:	Not reported
Date Trans1 Transported Waste:	Not reported
Date Trans2 Transported Waste:	Not reported
Date Trans3 Transported Waste:	Not reported
Date Trans4 Transported Waste:	Not reported
Date Trans5 Transported Waste:	Not reported
Date Trans6 Transported Waste:	Not reported
Date Trans7 Transported Waste:	Not reported
Date Trans8 Transported Waste:	Not reported
Date Trans9 Transported Waste:	Not reported
Date Trans10 Transported Waste:	Not reported
Date TSDF Received Waste:	Not reported
TSDF EPA Facility Name:	Not reported
QTY Units:	Not reported
Transporter SEQ ID:	Not reported
Transporter-1 Date:	Not reported
Waste SEQ ID:	Not reported
Waste Type Code 2:	Not reported
Waste Type Code 3:	Not reported
Waste Type Code 4:	Not reported

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Waste Type Code 5:	Not reported
Waste Type Code 6:	Not reported
Date Accepted:	Not reported
Manifest Discrepancy Type:	Not reported
Data Entry Number:	Not reported
Was Load Rejected:	BUFFALO, NY 14203
Reason Load Was Rejected:	Not reported
Manifest Number:	000021511VES
EPA ID:	NYD074042292
Date Shipped:	8/13/2013
TSDF EPA ID:	NJD980536593
Transporter EPA ID:	NJD080631369
Transporter 2 EPA ID:	Not reported
Transporter 3 EPA ID:	Not reported
Transporter 4 EPA ID:	Not reported
Transporter 5 EPA ID:	Not reported
Transporter 6 EPA ID:	Not reported
Transporter 7 EPA ID:	Not reported
Transporter 8 EPA ID:	Not reported
Transporter 9 EPA ID:	Not reported
Transporter 10 EPA ID:	Not reported
Date Trans1 Transported Waste:	Not reported
Date Trans2 Transported Waste:	Not reported
Date Trans3 Transported Waste:	Not reported
Date Trans4 Transported Waste:	Not reported
Date Trans5 Transported Waste:	Not reported
Date Trans6 Transported Waste:	Not reported
Date Trans7 Transported Waste:	Not reported
Date Trans8 Transported Waste:	Not reported
Date Trans9 Transported Waste:	Not reported
Date Trans10 Transported Waste:	Not reported
Date TSDF Received Waste:	Not reported
TSDF EPA Facility Name:	Not reported
QTY Units:	Not reported
Transporter SEQ ID:	Not reported
Transporter-1 Date:	Not reported
Waste SEQ ID:	Not reported
Waste Type Code 2:	Not reported
Waste Type Code 3:	Not reported
Waste Type Code 4:	Not reported
Waste Type Code 5:	Not reported
Waste Type Code 6:	Not reported
Date Accepted:	Not reported
Manifest Discrepancy Type:	Not reported
Data Entry Number:	Not reported
Was Load Rejected:	BUFFALO, NY 14203
Reason Load Was Rejected:	Not reported

Waste:

Manifest Year:	Not reported
Waste Code:	D001
Hand Code:	Not reported
Quantity:	100.00 Pounds
Manifest Year:	Not reported
Waste Code:	U002 U015 U035 U010 U034
Hand Code:	Not reported

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Quantity:	200.00 Pounds
Manifest Year:	Not reported
Waste Code:	U002 U015 U035 U010 U034
Hand Code:	Not reported
Quantity:	800.00 Pounds
Manifest Number:	000614353VES
EPA ID:	NYD074042292
Date Shipped:	2/5/2013
TSDF EPA ID:	NJD980536593
Transporter EPA ID:	NJD080631369
Transporter 2 EPA ID:	Not reported
Transporter 3 EPA ID:	Not reported
Transporter 4 EPA ID:	Not reported
Transporter 5 EPA ID:	Not reported
Transporter 6 EPA ID:	Not reported
Transporter 7 EPA ID:	Not reported
Transporter 8 EPA ID:	Not reported
Transporter 9 EPA ID:	Not reported
Transporter 10 EPA ID:	Not reported
Date Trans1 Transported Waste:	Not reported
Date Trans2 Transported Waste:	Not reported
Date Trans3 Transported Waste:	Not reported
Date Trans4 Transported Waste:	Not reported
Date Trans5 Transported Waste:	Not reported
Date Trans6 Transported Waste:	Not reported
Date Trans7 Transported Waste:	Not reported
Date Trans8 Transported Waste:	Not reported
Date Trans9 Transported Waste:	Not reported
Date Trans10 Transported Waste:	Not reported
Date TSDF Received Waste:	Not reported
TSDF EPA Facility Name:	Not reported
QTY Units:	Not reported
Transporter SEQ ID:	Not reported
Transporter-1 Date:	Not reported
Waste SEQ ID:	Not reported
Waste Type Code 2:	Not reported
Waste Type Code 3:	Not reported
Waste Type Code 4:	Not reported
Waste Type Code 5:	Not reported
Waste Type Code 6:	Not reported
Date Accepted:	Not reported
Manifest Discrepancy Type:	Not reported
Data Entry Number:	Not reported
Was Load Rejected:	BUFFALO, NY 14203
Reason Load Was Rejected:	Not reported

Waste:

Manifest Year:	Not reported
Waste Code:	D001
Hand Code:	Not reported
Quantity:	88.00 Pounds
Manifest Year:	Not reported
Waste Code:	U002 U015 U035 U010 U034
Hand Code:	Not reported

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Quantity:	170.00 Pounds
Manifest Year:	Not reported
Waste Code:	U002 U015 U035 U010 U034
Hand Code:	Not reported
Quantity:	553.00 Pounds
Manifest Number:	000673480VES
EPA ID:	NYD074042292
Date Shipped:	11/6/2013
TSDF EPA ID:	NJD980536593
Transporter EPA ID:	PAR000524041
Transporter 2 EPA ID:	Not reported
Transporter 3 EPA ID:	Not reported
Transporter 4 EPA ID:	Not reported
Transporter 5 EPA ID:	Not reported
Transporter 6 EPA ID:	Not reported
Transporter 7 EPA ID:	Not reported
Transporter 8 EPA ID:	Not reported
Transporter 9 EPA ID:	Not reported
Transporter 10 EPA ID:	Not reported
Date Trans1 Transported Waste:	Not reported
Date Trans2 Transported Waste:	Not reported
Date Trans3 Transported Waste:	Not reported
Date Trans4 Transported Waste:	Not reported
Date Trans5 Transported Waste:	Not reported
Date Trans6 Transported Waste:	Not reported
Date Trans7 Transported Waste:	Not reported
Date Trans8 Transported Waste:	Not reported
Date Trans9 Transported Waste:	Not reported
Date Trans10 Transported Waste:	Not reported
Date TSDF Received Waste:	Not reported
TSDF EPA Facility Name:	Not reported
QTY Units:	Not reported
Transporter SEQ ID:	Not reported
Transporter-1 Date:	Not reported
Waste SEQ ID:	Not reported
Waste Type Code 2:	Not reported
Waste Type Code 3:	Not reported
Waste Type Code 4:	Not reported
Waste Type Code 5:	Not reported
Waste Type Code 6:	Not reported
Date Accepted:	Not reported
Manifest Discrepancy Type:	Not reported
Data Entry Number:	Not reported
Was Load Rejected:	BUFFALO, NY 14203
Reason Load Was Rejected:	Not reported

Waste:

Manifest Year:	Not reported
Waste Code:	D001
Hand Code:	Not reported
Quantity:	30.00 Pounds
Manifest Year:	Not reported
Waste Code:	U080 U154 U205 U129 U165
Hand Code:	Not reported

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Quantity:	65.00 Pounds
Manifest Year:	Not reported
Waste Code:	U002 U015 U035 U010 U034
Hand Code:	Not reported
Quantity:	1,155.00 Pounds
Manifest Number:	000571110VES
EPA ID:	NYD074042292
Date Shipped:	1/18/2012
TSDF EPA ID:	NJD980536593
Transporter EPA ID:	NJD080631369
Transporter 2 EPA ID:	Not reported
Transporter 3 EPA ID:	Not reported
Transporter 4 EPA ID:	Not reported
Transporter 5 EPA ID:	Not reported
Transporter 6 EPA ID:	Not reported
Transporter 7 EPA ID:	Not reported
Transporter 8 EPA ID:	Not reported
Transporter 9 EPA ID:	Not reported
Transporter 10 EPA ID:	Not reported
Date Trans1 Transported Waste:	Not reported
Date Trans2 Transported Waste:	Not reported
Date Trans3 Transported Waste:	Not reported
Date Trans4 Transported Waste:	Not reported
Date Trans5 Transported Waste:	Not reported
Date Trans6 Transported Waste:	Not reported
Date Trans7 Transported Waste:	Not reported
Date Trans8 Transported Waste:	Not reported
Date Trans9 Transported Waste:	Not reported
Date Trans10 Transported Waste:	Not reported
Date TSDF Received Waste:	Not reported
TSDF EPA Facility Name:	Not reported
QTY Units:	Not reported
Transporter SEQ ID:	Not reported
Transporter-1 Date:	Not reported
Waste SEQ ID:	Not reported
Waste Type Code 2:	Not reported
Waste Type Code 3:	Not reported
Waste Type Code 4:	Not reported
Waste Type Code 5:	Not reported
Waste Type Code 6:	Not reported
Date Accepted:	Not reported
Manifest Discrepancy Type:	Not reported
Data Entry Number:	Not reported
Was Load Rejected:	BUFFALO, NY 14203
Reason Load Was Rejected:	Not reported

Waste:

Manifest Year:	Not reported
Waste Code:	D001
Hand Code:	Not reported
Quantity:	28.00 Pounds
Manifest Year:	Not reported
Waste Code:	D001 D011 D007
Hand Code:	Not reported

BUFFALO GENERAL MEDICAL CENTER-KALEIDA HEALTH (Continued) **1000105471**

Quantity:	4.00 Pounds
Manifest Year:	Not reported
Waste Code:	U002 U015 U035 U010 U034
Hand Code:	Not reported
Quantity:	798.00 Pounds
Manifest Number:	001015770VES
EPA ID:	NYD074042292
Date Shipped:	8/7/2015
TSDF EPA ID:	NJD980536593
Transporter EPA ID:	NJD080631369
Transporter 2 EPA ID:	Not reported
Transporter 3 EPA ID:	Not reported
Transporter 4 EPA ID:	Not reported
Transporter 5 EPA ID:	Not reported
Transporter 6 EPA ID:	Not reported
Transporter 7 EPA ID:	Not reported
Transporter 8 EPA ID:	Not reported
Transporter 9 EPA ID:	Not reported
Transporter 10 EPA ID:	Not reported
Date Trans1 Transported Waste:	Not reported
Date Trans2 Transported Waste:	Not reported
Date Trans3 Transported Waste:	Not reported
Date Trans4 Transported Waste:	Not reported
Date Trans5 Transported Waste:	Not reported
Date Trans6 Transported Waste:	Not reported
Date Trans7 Transported Waste:	Not reported
Date Trans8 Transported Waste:	Not reported
Date Trans9 Transported Waste:	Not reported
Date Trans10 Transported Waste:	Not reported
Date TSDF Received Waste:	Not reported
TSDF EPA Facility Name:	Not reported
QTY Units:	Not reported
Transporter SEQ ID:	Not reported
Transporter-1 Date:	Not reported
Waste SEQ ID:	Not reported
Waste Type Code 2:	Not reported
Waste Type Code 3:	Not reported
Waste Type Code 4:	Not reported
Waste Type Code 5:	Not reported
Waste Type Code 6:	Not reported
Date Accepted:	Not reported
Manifest Discrepancy Type:	Not reported
Data Entry Number:	Not reported
Was Load Rejected:	BUFFALO, NY 14203
Reason Load Was Rejected:	Not reported

101
WSW
1/4-1/2
0.451 mi.
2383 ft.

BLACK BEAR COMPANY
27-10 HUNTERS POINT AVE
QUEENS, NY

NY LTANKS **S106972606**
N/A

Relative:
Lower

Actual:
607 ft.

LTANKS:

Facility ID:	0501474
Site ID:	345633
Closed Date:	2005-08-16
Spill Number:	0501474
Spill Date:	2005-05-05
Spill Cause:	Tank Test Failure
Spill Source:	Commercial/Industrial
Spill Class:	C4
Cleanup Ceased:	Not reported
SWIS:	4101
Investigator:	MXTIPPLE
Referred To:	Not reported
Reported to Dept:	2005-05-05
CID:	71
Water Affected:	Not reported
Spill Notifier:	Tank Tester
Last Inspection:	Not reported
Recommended Penalty:	False
Meets Standard:	True
UST Involvement:	False
Remediation Phase:	0
Date Entered In Computer:	2005-05-05
Spill Record Last Update:	2007-11-09
Spiller Name:	ABRAHAM WEXLER
Spiller Company:	Not reported
Spiller Address:	Not reported
Spiller County:	001
Spiller Contact:	ABRAHAM WEXLER
Spiller Phone:	(718) 731-7011
Spiller Extention:	Not reported
DEC Region:	2
DER Facility ID:	291869
DEC Memo:	"5/6/05 mt/// tank now being emptied, ttf letter sent/////// 5/23/05 mt//// tank emptied and cleaned, may be closed in place//attempted calling # in fax..Not in service. 5/31/05 mt/updating//black bear company retained Richard Baldwin to conduct investigation// 8/16/05 Tipple observed samples from gw interface, no visual or olfactory evidence of petroleum contamination//Tank must be removed or properly abandon in place as soon as feasible, no further action necessary to remediate contaminants at this site. Spill Closed "
Remarks:	"WET PORTION LEAK"

All TTF:

Facility ID:	0501474
Spill Number:	0501474
Spill Tank Test:	1548874
Site ID:	345633
Tank Number:	Not reported
Tank Size:	7500
Material:	0001
EPA UST:	Not reported
UST:	Not reported
Cause:	Not reported

BLACK BEAR COMPANY (Continued) **S106972606**

Source:	Not reported
Test Method:	03
Test Method 2:	Horner EZ Check I or II
Leak Rate:	.00
Gross Fail:	Not reported
Modified By:	Watchdog
Last Modified Date:	Not reported

All Materials:

Site ID:	345633
Operable Unit ID:	1103350
Operable Unit:	01
Material ID:	583562
Material Code:	0001A
Material Name:	#2 fuel oil
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	2500.00
Units:	G
Recovered:	Not reported
Oxygenate:	Not reported

102
SW
1/4-1/2
0.453 mi.
2393 ft.

SIMON OIL COMPANY **NY LTANKS** **S100117657**
SOUTH ELMWOOD & CHIPPEWA **N/A**
BUFFALO, NY

Relative:
Lower

Actual:
610 ft.

LTANKS:

Facility ID:	8900269
Site ID:	242396
Closed Date:	1990-03-28
Spill Number:	8900269
Spill Date:	1989-04-08
Spill Cause:	Tank Failure
Spill Source:	Gasoline Station or other PBS Facility
Spill Class:	Not reported
Cleanup Ceased:	1990-03-05
SWIS:	1502
Investigator:	LYONS
Referred To:	Not reported
Reported to Dept:	1989-04-10
CID:	Not reported
Water Affected:	Not reported
Spill Notifier:	Tank Tester
Last Inspection:	1990-03-05
Recommended Penalty:	False
Meets Standard:	True
UST Involvement:	True
Remediation Phase:	0
Date Entered In Computer:	1989-04-14
Spill Record Last Update:	1996-10-01
Spiller Name:	Not reported
Spiller Company:	SIMON OIL
Spiller Address:	1316 MAIN STREET
Spiller County:	001

SIMON OIL COMPANY (Continued) **S100117657**

Spiller Contact:	Not reported
Spiller Phone:	Not reported
Spiller Extention:	Not reported
DEC Region:	9
DER Facility ID:	199193
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was MEL 04/13/89: TANK WAS CLEANED AND FILLED IN PLACE AS NO APPRECAIBLE SHEEN COULD BE FOUND IN THE SOIL. TEST PIT TO BE DUG AT END OF TANK & A WELL INSERTED AS PRECAUTIONARY MEASURES. 04/17/89: MEL SITE INSPECTION. EXCAVATION FILLED IN AND WELL IN PLACE. WELL DOES NOT EXTEND TO WATER TABLE. SOIL IN WELL HAS A GAS ODOR BUT DOES NOT SHEEN WHEN EXPOSED TO WATER. 05/25/89: MEL INSPECTION. NO WATER IN WELL, SOIL AT BOTTOM OF WELL SMELLED OF GASOLINE. 06/02/89: MEL INSPECTION. MEASURED DEPTH OF WELL - 9.5 FEET. SENT LETTER TO KIMMONS. 06/16/89: RNL TELCON WITH PETER BURKE, KEN KIMMONS ATTORNEY . AGREED TO WELL DEPTH OF 20 FEET. BURKE TO CHECK WITH KIMMONS, AND CALL THEN CALL RNL. 06/27/89: MEL INSPECTION. WELL DEPTH STILL 9.5 FEET. 08/08/89: MEL INSPECTIONS OF 8/8/89, 9/6/89, 11/2/89, 3/5/89. WELL WAS FREE OF PETROLEUM SHEEN ON EACH DATE INSPECTED (SLIGHT GASOLINE ODOR PRESENT). NO FURTHER ACTION NECESSARY, RECOMMEND FILE BE CLOSED. "
Remarks:	"FAILED ISOLATION TEST. PASSED LAST YEAR FAILED THIS YEAR."

All TTF:

Facility ID:	8900269
Spill Number:	8900269
Spill Tank Test:	1535322
Site ID:	242396
Tank Number:	2
Tank Size:	0
Material:	0009
EPA UST:	Not reported
UST:	Not reported
Cause:	Not reported
Source:	Not reported
Test Method:	00
Test Method 2:	Unknown
Leak Rate:	.00
Gross Fail:	Not reported
Modified By:	Spills
Last Modified Date:	Not reported

All Materials:

Site ID:	242396
Operable Unit ID:	926678
Operable Unit:	01
Material ID:	451615
Material Code:	0009
Material Name:	gasoline
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	.00
Units:	G
Recovered:	.00
Oxygenate:	Not reported

U103 **SINCLAIR RADIO OF BUFFALO** **NY LTANKS** **S102960426**
North **695 DELAWARE AVENUE** **N/A**
1/4-1/2 **BUFFALO, NY**
0.459 mi.
2423 ft. **Site 2 of 2 in cluster U**

Relative:
Higher

Actual:
670 ft.

LTANKS:

Facility ID:	9709172
Site ID:	190349
Closed Date:	1998-12-02
Spill Number:	9709172
Spill Date:	1997-10-29
Spill Cause:	Tank Failure
Spill Source:	Commercial/Industrial
Spill Class:	D6
Cleanup Ceased:	Not reported
SWIS:	1502
Investigator:	COOKE
Referred To:	Not reported
Reported to Dept:	1997-11-04
CID:	999
Water Affected:	Not reported
Spill Notifier:	Responsible Party
Last Inspection:	Not reported
Recommended Penalty:	False
Meets Standard:	True
UST Involvement:	True
Remediation Phase:	0
Date Entered In Computer:	1997-11-06
Spill Record Last Update:	2001-12-05
Spiller Name:	THOMAS ATKINS
Spiller Company:	SINCLAIR RADIO OF BUFFALO
Spiller Address:	695 DELAWARE AVENUE
Spiller County:	001
Spiller Contact:	TOM ATKINS
Spiller Phone:	(716) 843-0269
Spiller Extention:	Not reported
DEC Region:	9
DER Facility ID:	158781
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was JDC 11/4/97: JDC TELCON W/ TOM ATKINS, FACILTY MGR FOR RADIO STATION. ADVISED HE FORWARD POST TEST RESULTS FOR OUR REVIEW. RECEIVED RESULTS AND FOUND LEVELS SATISFACTORY FOR 8021 DIRECT, HOWEVER 8270 RESULTS EXCEEDED. JDC CONTACTED MR ATKINS AND REQUESTED HE RESAMPLE UNDER TCLP CONDITIONS. HE AGREED, WILL DETERMINE STATUS BASED ON NEXT ROUND OF SAMPLING. 5/4/98: JDC TELCON W/ ANDY KASARICK, BFLO DRILLING AND ADVISED ON RESAMPLING REQUIREMENTS. 12/2/98: JDC LEFT MESSAGE FOR MR ATKINS TO RETURN MY CALL ON RESAMPLING STATUS. TELCON W/ ANDY KASARICK WHO SAID HE FAX OVER RESULTS. JDC RECEIVED TEST RESULTS FOR TCLP AND FOUND SATISFACTORY. NO FURTHER ACTION REQUIRED SITE CLOSED. WILL SEND CLOSURE LETTER."
Remarks:	"MR ATKINS ADVISED HIS POST TEST RESULTS HAD LEVELS OF CONTAMINATION. AFTER REVIEW OF FAXED RESULTS FOUND MINOR VIOLATIONS, WILL CLOSE FILE AS INACTIVE. ADVISED MR MTKINS THAT HE COULD RESAMPLE FOR CLOSURE."

All Materials:

Site ID:	190349
Operable Unit ID:	1055557
Operable Unit:	01
Material ID:	331087

SINCLAIR RADIO OF BUFFALO (Continued) **S102960426**

Material Code:	0008
Material Name:	diesel
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	.00
Units:	G
Recovered:	.00
Oxygenate:	Not reported

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104 West 1/4-1/2 0.462 mi. 2437 ft.

295 MARYLAND STREET
295 MARYLAND STREET
BUFFALO, NY 14201

NY BROWNFIELDS S104953446
NY Spills N/A

Relative: Lower

Actual: 615 ft.

BROWNFIELDS:

Program:	BCP
Site Code:	445376
Acres:	1.48
HW Code:	C915242
SWIS:	1502
Town:	Buffalo (c)
Record Added Date:	02/17/2011
Record Updated Date:	12/30/2016
Update By:	CRSTANIS
Site Description:	Location: The 295 Maryland Street site is located in a residential area on the west side of the City of Buffalo. The site is bound by Maryland Street to the northwest and West Avenue to the southwest. Site Features: The main site features on this 1.48 acres site include newly constructed residential apartments located on the 295 Maryland Street parcel and a vacant parcel at 129 West Avenue. The project site is generally flat and partially vegetated. Current Zoning and Land Use: Portions of the site have recently been developed with apartments. The site is zoned for commercial/residential use. The surrounding parcels are mainly residential. Past Use of the Site: Until 2000, the site was used for manufacturing commercial billboards, dating back to the 1920s. Prior uses that appear to have led to site contamination include three UST's, vehicle maintenance, and use and storage of paints, adhesives, solvents, and other flammables. During past operations, three on-site UST s were removed: a 550 gallon gasoline UST (removed 1974), a 4000 gallon gasoline UST (removed in 1997), and a 100 gallon UST remover during facility decommissioning in 2001. Site Geology and Hydrology: The upper four feet consists of topsoil, lean clay, and silt fill materials, underlain by up to 22 feet of native red-brown lean clay to silty sand. The depth to groundwater is 15-20 feet below ground surface (fbgs) and flow is to the southwest.
Env Problem:	Nature and Extent of Contamination: Remediation at the site is complete. Prior to remediation, the primary contaminants of concern were SVOCs, arsenic, cadmium and mercury in soil and VOC, SVOC, metal, and pesticides in groundwater. Remedial actions have successfully achieved soil cleanup objectives for restricted residential use. Residual contamination in the soil, groundwater, and sediment is being managed under a Site Management Plan.
Health Problem:	Measures are in place to control the potential for contact with residual site contaminants.
Dump:	False

295 MARYLAND STREET (Continued) **S104953446**

Structure:	False
Lagoon:	False
Landfill:	False
Pond:	False
Disp Start:	Not reported
Disp Term:	Not reported
Lat/Long:	Not reported
Dell:	Not reported
Record Add:	2/24/2011 12:05:00 PM
Record Upd:	12/7/2016 4:10:00 PM
Updated By:	ALLOPES
Dump:	False
Structure:	False
Lagoon:	False
Landfill:	False
Pond:	False
Disp Start:	Not reported
Disp Term:	Not reported
Lat/Long:	Not reported
Dell:	Not reported
Record Add:	2/24/2011 12:05:00 PM
Record Upd:	12/7/2016 4:10:00 PM
Updated By:	ALLOPES
Own Op:	Applicant/Requestor
Sub Type:	P03
Owner Name:	Anthony P. LoRusso
Owner Company:	295 Maryland, LLC
Owner Address:	366 Elmwood Avenue
Owner Addr2:	Not reported
Owner City,St,Zip:	Buffalo, NY 14222
Owner Country:	United States of America
Own Op:	Owner
Sub Type:	07
Owner Name:	Anthony P. LoRusso
Owner Company:	295 Maryland, LLC
Owner Address:	366 Elmwood Avenue
Owner Addr2:	Not reported
Owner City,St,Zip:	Buffalo, NY 14222
Owner Country:	United States of America
Own Op:	Document Repository
Sub Type:	NNN
Owner Name:	Mr. Brian Hoth
Owner Company:	Buffalo and Erie County Public Library
Owner Address:	Niagara Branch
Owner Addr2:	280 Porter Avenue
Owner City,St,Zip:	Buffalo, NY 14201
Owner Country:	United States of America
Own Op:	Document Repository
Sub Type:	NNN
Owner Name:	Anthony Lopes
Owner Company:	NYS DEC
Owner Address:	270 Michigan Ave
Owner Addr2:	Not reported
Owner City,St,Zip:	Buffalo, NY 14203
Owner Country:	United States of America
HW Code:	C915242
Waste Type:	CADMIUM

295 MARYLAND STREET (Continued) **S104953446**

Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915242
Waste Type:	BENZ(A)ANTHRACENE
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915242
Waste Type:	ARSENIC
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915242
Waste Type:	BENZO(A)ANTHRACENE
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915242
Waste Type:	DIELDRIN
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915242
Waste Type:	DIBENZ[A,H]ANTHRACENE
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915242
Waste Type:	NAPHTHALENE
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915242
Waste Type:	LEAD
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915242
Waste Type:	Chrysene
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915242
Waste Type:	BENZO(B)FLUORANTHENE
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915242
Waste Type:	benzene, toluene, ethylbenzene and xylenes (BTEX)
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915242
Waste Type:	BETA-BHC
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915242
Waste Type:	MERCURY
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915242
Waste Type:	BENZO(A)PYRENE
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915242
Waste Type:	ALPHA-BHC
Waste Quantity:	UNKNOWN

295 MARYLAND STREET (Continued) **S104953446**

Waste Code:	Not reported
HW Code:	C915242
Waste Type:	CHROMIUM
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	C915242
Waste Type:	indeno(1,2,3-cd)pyrene
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
Crossref ID:	C915242-05-11
Cross Ref Type Code:	23
Cross Ref Type:	Agreement/Consent Order Number
Record Added Date:	12/28/2015 11:11:00 AM
Record Updated:	12/28/2015 11:11:00 AM
Updated By:	CRSTANIS
Crossref ID:	BK/PG D11289/2985
Cross Ref Type Code:	25
Cross Ref Type:	County Recording Identifier
Record Added Date:	12/28/2015 11:10:00 AM
Record Updated:	12/28/2015 11:10:00 AM
Updated By:	CRSTANIS
Crossref ID:	File 2015254443
Cross Ref Type Code:	25
Cross Ref Type:	County Recording Identifier
Record Added Date:	12/28/2015 11:05:00 AM
Record Updated:	12/28/2015 11:05:00 AM
Updated By:	CRSTANIS
Crossref ID:	07-14-2011
Cross Ref Type Code:	26
Cross Ref Type:	Agreement/Consent Order Date
Record Added Date:	12/28/2015 11:13:00 AM
Record Updated:	12/28/2015 11:13:00 AM
Updated By:	CRSTANIS

SPILLS:

Facility ID:	0375151
Facility Type:	ER
Spill Number:	0375151
DER Facility ID:	141238
Site ID:	167620
DEC Region:	9
Closed Date:	2003-06-23
Spill Cause:	Housekeeping
Spill Class:	C3
SWIS:	1502
Spill Date:	2003-01-01
Investigator:	JFOTTO
Referred To:	Not reported
Reported to Dept:	2003-06-13
CID:	Not reported
Water Affected:	Not reported
Spill Source:	Commercial/Industrial
Spill Notifier:	Local Agency
Cleanup Ceased:	Not reported
Cleanup Meets Std:	True
Last Inspection:	2003-06-23
Recommended Penalty:	False

295 MARYLAND STREET (Continued) **S104953446**

UST Trust:	False
Remediation Phase:	0
Date Entered In Computer:	2003-06-13
Spill Record Last Update:	2003-06-30
Spiller Name:	Not reported
Spiller Company:	NONE
Spiller Address:	Not reported
Spiller Company:	999
Contact Name:	Not reported
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was JFO 6/16/03 FG SITE INSPECTION. THE LOT IS VACANT AND THERE IS NO SPILLAGE NOTED. 6/23/03 JFO SITE INSPECTION. THE LOT IS VACANT AND NO SPILLAGE OR DRUMS NOTED ON THE PROPERTY ON MARYLAND OR WEST AVE. NO FURTHER ACTION REQUIRED. CLOSED 6/23/03 FG CALLED KATE MEYER OF SAM HOYT'S OFFICE BUT SHE WAS NOT IN. LEFT A MESSAGE FOR HER TO RETURN CALL. 6/24/03 FG CALLED KATE MEYER AGAIN BUT SHE WAS NOT IN. TRIED TO LEAVE THE INFORMATION THAT THERE IS NO PROBLEM ON THE PROPERTY BUT WAS TOLD I WOULD HAVE TO SPEAK TO MS. MEYER. 6/30/03 RECEIVED LETTER FROM ASSEMBLYMAN SAM HOYT'S OFFICE THANKING DEC FOR THEIR ATTENTION TO THIS MATTER AND INDICATING THAT MS. MEYER WOULD BE CONTACTING US FOR FOLLOW-UP INFORMATION. KAB FAXED COPY OF SPILL REPORT TO MS. MEYER. "
Remarks:	"caller to hoyts office claims that company left a mess when they moved out. waste oil and other material on the property"

All Materials:

Site ID:	167620
Operable Unit ID:	884016
Operable Unit:	01
Material ID:	494349
Material Code:	0022
Material Name:	waste oil/used oil
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	.00
Units:	G
Recovered:	.00
Oxygenate:	Not reported

Site ID:	167620
Operable Unit ID:	884016
Operable Unit:	01
Material ID:	494350
Material Code:	0064A
Material Name:	unknown material
Case No.:	Not reported
Material FA:	Other
Quantity:	.00
Units:	G
Recovered:	.00
Oxygenate:	Not reported

Facility ID:	0075664
Facility Type:	ER
Spill Number:	0075664
DER Facility ID:	256712
Site ID:	318487

295 MARYLAND STREET (Continued) **S104953446**

DEC Region:	9
Closed Date:	2001-04-03
Spill Cause:	Unknown
Spill Class:	C3
SWIS:	1502
Spill Date:	2001-03-01
Investigator:	JFOTTO
Referred To:	Not reported
Reported to Dept:	2001-03-15
CID:	Not reported
Water Affected:	Not reported
Spill Source:	Commercial/Industrial
Spill Notifier:	Other
Cleanup Ceased:	Not reported
Cleanup Meets Std:	True
Last Inspection:	2001-03-15
Recommended Penalty:	False
UST Trust:	False
Remediation Phase:	0
Date Entered In Computer:	2001-03-15
Spill Record Last Update:	2001-04-05
Spiller Name:	Not reported
Spiller Company:	LAMAR ADVERTIZING
Spiller Address:	33 EXCHANGE ST
Spiller Company:	001
Contact Name:	ELVY BENTON
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was JFO 03/15/01 JFO ON SITE, NO ONE AVAILABLE. CALL TO ELVY BENTON OF AFI ENVIRONMENTAL 283-7645 CELL PH 622-1470. HE COLLECTED SOIL SAMPLES FROM THE BOTTOM OF THE EXCAVATION AND THE 4 SIDEWALLS. ANALYZE FOR 8021 AND 8270 STARS. THE CONTAMINATED SOIL WAS ALSO SAMPLED FOR DISPOSAL. RESULTS TO FOLLOW. 03/19/01 JFO RECEIVED ANALYTICAL RESULTS FOR THE SOIL PILE. THE PILE IS NON HAZARDOUS AND WILL BE DISPOSED. THE OTHER ANALYTICAL TO FOLLOW. 04/02/01 JFO RECEIVED THE CLOSURE REPORT WITH THE ANALYTICAL AND DISPOSAL RECEIPTS. THE ANALTICAL IS BELOW TAGMS. NO FURTHER ACTION REQUIRED. closure letter sent 4/5/01 to lamar and cc: cambria contracting. CLOSED"
Remarks:	"DISCOVERED 100-GAL. UST DURING DEMOLITION PROJECT. ODORS IN EXCAVATION DURING REMOVAL OF THAT TANK. SAMPLING WAS DONE ON THE EXCAVATION."

All Materials:

Site ID:	318487
Operable Unit ID:	837039
Operable Unit:	01
Material ID:	539246
Material Code:	0009
Material Name:	gasoline
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	.00
Units:	G
Recovered:	.00
Oxygenate:	Not reported

105
ENE
1/4-1/2
0.462 mi.
2438 ft.

ROSWELL PARK CANCER INST.
MICHIGAN AND HIGH STREETS
BUFFALO, NY

NY LTANKS **S103038260**
N/A

Relative:
Higher

Actual:
650 ft.

LTANKS:

Facility ID:	9504008
Site ID:	116024
Closed Date:	1996-07-01
Spill Number:	9504008
Spill Date:	1995-07-03
Spill Cause:	Tank Overfill
Spill Source:	Institutional, Educational, Gov., Other
Spill Class:	B1
Cleanup Ceased:	Not reported
SWIS:	1502
Investigator:	RMCROSSE
Referred To:	Not reported
Reported to Dept:	1995-07-03
CID:	Not reported
Water Affected:	Not reported
Spill Notifier:	Responsible Party
Last Inspection:	1996-04-29
Recommended Penalty:	False
Meets Standard:	False
UST Involvement:	False
Remediation Phase:	0
Date Entered In Computer:	1995-07-06
Spill Record Last Update:	1999-03-19
Spiller Name:	Not reported
Spiller Company:	ROSWELL PARK CANCER INST.
Spiller Address:	ELM AND CARLTON STREETS
Spiller County:	001
Spiller Contact:	Not reported
Spiller Phone:	Not reported
Spiller Extention:	Not reported
DEC Region:	9
DER Facility ID:	100997
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was RMC 07/03/95: RMC/RAY JONES/AL GUSTAFSON/EPS/SITE EPS GAVE ROSWELL ESTIMATE OF 10 K TO CLEAN UP ESTIMATED 50 GALLON SPILL AROUND CONTAINMENT MH,RMC ADVISED AUTHORIZATION TO CONTRACTOR BY ROSWELL COULD TAKE 6 WEEKS. 07/03/95: RMC/RAY JONES/AL GUSTAFSON/EPS/SITE AFTER TALKING WITH RNL.. DEC+ROSWELL AGREEED DEC TO DO CLEANUP AND BILL ROSWELL FOR COST LATER, ROE SIGNED, EPS AUTHORIZED TO BEGIN. 07/03/95: RMC/EPS/SITE TWO LOADS MATERIAL EXCAVATED,APPEARS SIGNIFICANTLY MORE PRODUCTS SPILLED THAN ORIGINALLY THOUGHT,NO ROOM TO STAGE ON SITE, SUMP DUG TO GIVE PRODUCT PLACE TO ACCUMULATE TILL WED AM. 07/03/95: RMC/FILE CONTACTED HENRY SANDONATO AND ADVISED OF SPILL AND SPACE PROBLEMS, HS AGREED THAT STAGING AT BIG K SITE NOT DESIRABLE BUT HAVE NO OTHER OPTION READILY AVAILABLE,RMC WROTE TRANSPORTER PERMIT. 07/05/95: RMC/SITE WORK UNDER WAY, EPS FOUND LIMITS OF SPILL, AND RECOVERED 300 + GALLONS PURE PRODUCT, FIVE LOADS CONTAMINATED SOIL EXCAVATED, EXCAVATION COMPLETE,. 07/06/95: RMC/SITE RESTORATION WORK BEGUN, CLAY REPLACEMENT COMPLETE, REPLACING STONE NOW, TO DRUM CONTENTS OF VAC TRUCK PENDING DISPOSAL,. 07/06/95: RMC/FILE AUTHORIZATION TO PROCEED AND RP LETTER SENT. 07/14/95: RMC/FILE DISPOSAL AND TESTING DUE 8/30/95. 08/02/95:

ROSWELL PARK CANCER INST. (Continued) **S103038260**

RNL/EPS/ROSWELL/SITE FOUND ADDITIONAL MINOR SPILLAGE UNDER CONCRETE CURB, EPS TO REMEDIATE, DISPOSAL AND TESTING DUE 8/30/95. 08/10/95: RMC/ROSWELL/JERRY MILNE ENG 3157351960/PEG LAWRENCE ERM 6335920/SITE WENT OVER REQUIRMENT FOR UTILITY EXCAVATIONS,NO ACTION UNLESS FIND VISUAL CONTAMINATION,DISPOSAL DUE FOR SOIL SEGRATED DUE 9/15/95\\. 08/11/95: RMC/SITE NO VISUAL CONTAMINATION NOTED IN NFG EXCAVATIONS OR WATER LINEEXCAVATIONS TO THE EAST OF 6 OIL TANKS WHERE RECENT OVERFILL HAPPENED, DISPOSAL BY RP FOR SOIL DUE 9/15/95 DISP+BILL DUE EPS 9/1. 02/09/96 RMC/GUSTAFSON/PHONE 6 OIL TANK REMOVALS ARE A YEAR A HEAD OF SCHEDUL, CONTRACT TO BE RELEASED TO OGS BY 3/1, THE DISPOSAL OF THE REMAINING LOAD OF SOIL WILL BE IN THE TANK REMOVAL PROJECT, CALL FROM OGS DUE 3/30/96 03/16/96 RMC/RECEIVED TANK CLOSURE NOTICE, REMOVALS TO PROCEED, 3/19/96 03/19/96 RMC/SITE NO WORK YET 03/20/96 RMC/BURN/PHONE REMOVALS PUT BACK TO NEXT WEEK , SITE CONTACT FOR OGS IS BOB MAYER 852-7437 04/17/96 RMC/FILE SAC INSPECTED SITE ON 4/10 AND 4/12/96 TWO TANKS REMOVED, CAN NOT IMMEDIATELY FIND 550 GALLON DIESEL TANK DUE TO SITE LIMITATIONS ON EXCAVATION 04/17/96 RMC/BOB MAYER/OWEN BURN/PHONE WATER IN EXCAVATION WILL BE PUMPED OUT THEN EXCAVATION OF CONTAMINATION WILL RESUME, FUTURE CONTRACT WILL COVER DIESEL AND OTHER TWO TANKS, TO REINSPECT 04/27/96 RMC/BURN/DENNIS MAHN PRINCIPAL UTILITIES ENG 845 5866/SITE TWO TANKS REMOVED AND SIGNIFICANT AMOUNTS OF CONTAMINATED SOIL AND WATER TO REMOVE REMAINING VISUAL CONTAMINATION AND TEST, THREE REMAINING TANKS TO BE REMOVED LATER THIS YEAR, TESTING AND DISPOSAL DUE 5/30/96 07/01/96 RMC/BOB MAYER/DENNIS MAHN/PHONE RMC WAS ADVISED THAT REMAINING TANKS WOULD BE TAKEN OUT OF SERVICE AND REMOVED LATE THIS YEAR OR EARLY NEXT YEAR, FILE NOTE THESE REMOVALS MAY RESULT IN ADDITIONAL SPILLAGE BEING FOUND, 07/01/96 RMC/FILE, MINOR EXCEEDANCES IN TANK PIT, SITE TO BE MADE INACTIVE"

Remarks: "OVER FILLED 6 OIL TANK"

All Materials:

Site ID:	116024
Operable Unit ID:	1018472
Operable Unit:	01
Material ID:	365518
Material Code:	0001A
Material Name:	#2 fuel oil
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	600.00
Units:	G
Recovered:	600.00
Oxygenate:	Not reported

Facility ID:	9875428
Site ID:	309722
Closed Date:	1999-03-01
Spill Number:	9875428
Spill Date:	1999-02-01
Spill Cause:	Tank Overfill
Spill Source:	Institutional, Educational, Gov., Other
Spill Class:	D4
Cleanup Ceased:	Not reported
SWIS:	1502
Investigator:	RMCROSSE
Referred To:	Not reported

ROSWELL PARK CANCER INST. (Continued) **S103038260**

Reported to Dept:	1999-03-01
CID:	Not reported
Water Affected:	Not reported
Spill Notifier:	Other
Last Inspection:	Not reported
Recommended Penalty:	False
Meets Standard:	False
UST Involvement:	True
Remediation Phase:	0
Date Entered In Computer:	1999-03-01
Spill Record Last Update:	1999-03-31
Spiller Name:	Not reported
Spiller Company:	ROSWELL PARK
Spiller Address:	666 ELM STREET
Spiller County:	001
Spiller Contact:	OWEN BYRNE OGS
Spiller Phone:	(716) 674-0437
Spiller Extention:	Not reported
DEC Region:	9
DER Facility ID:	250034
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was RMC 03/01/99: RMC TELECON WITH CRONIN, TANK CLOSURE REPORT SHOWS ONE MINOR EXCEEDANCE, NO FURTHER ACTION REQUIRED, INACTIVE"
Remarks:	"SAMPLE RESULTS FROM 2500 GALLON TANK EXCAVATION SHOW MINOR EXCEEDANCE, NO VISUAL CONTAMINATION WAS NOTED AT THE TIME OF EXCAVATION BY THE CONTRACTOR"

All Materials:

Site ID:	309722
Operable Unit ID:	1074849
Operable Unit:	01
Material ID:	307068
Material Code:	0008
Material Name:	diesel
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	.00
Units:	G
Recovered:	.00
Oxygenate:	Not reported

106
NE
1/4-1/2
0.471 mi.
2487 ft.

BUFFALO GENERAL HOSPITAL **NY LTANKS** **S103038227**
NORTH STREET **N/A**
BUFFALO, NY

Relative: Higher

Actual: 658 ft.

LTANKS:

Facility ID:	9310029
Site ID:	116252
Closed Date:	1994-12-16
Spill Number:	9310029
Spill Date:	1993-11-17
Spill Cause:	Tank Overfill
Spill Source:	Institutional, Educational, Gov., Other
Spill Class:	C3
Cleanup Ceased:	1994-12-16

BUFFALO GENERAL HOSPITAL (Continued) **S103038227**

SWIS:	1502
Investigator:	SORGI
Referred To:	Not reported
Reported to Dept:	1993-11-17
CID:	Not reported
Water Affected:	Not reported
Spill Notifier:	Citizen
Last Inspection:	1993-11-17
Recommended Penalty:	False
Meets Standard:	True
UST Involvement:	False
Remediation Phase:	0
Date Entered In Computer:	1993-11-19
Spill Record Last Update:	1994-12-22
Spiller Name:	Not reported
Spiller Company:	BUFFALO GENERAL HOSPITAL
Spiller Address:	100 HIGH STREET
Spiller County:	001
Spiller Contact:	Not reported
Spiller Phone:	Not reported
Spiller Extention:	Not reported
DEC Region:	9
DER Facility ID:	101186
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was MJS 11/17/93: MJS SITE INSPECT. WEATHER RAINING. HEAVY SHEEN ON WATER RUNNING DOWN STREET. PRODUCT CAME OUT VENT PIPE DURING FILLING OF TANK. MET W/ MR KERLING - DEBRIS MUST BE DISPOSED. 09/08/94: MJS REVIEW FILE. NO RECEIPTS OR ANALYTICAL FOR CONT DEBRIS. LETTER TO RP REQUESTING DOCUMENTATION. RESPONSE DUE 10/1/94. 10/12/94: MJS TELECON FROM RP. HE WILL FORWARD DOCUMENTATION ASAP FOR CLOSURE OF FILE. 12/16/94: RECEICED DISPOSAL DOCUMENTATION FROM RP. NO FURTHER ACTION REQUIRED. MJS CLOSE FILE. "
Remarks:	"CITIZEN OBSERVED OIL RUNNING DOWN SIDEWALK INTO STREET."

All Materials:

Site ID:	116252
Operable Unit ID:	991734
Operable Unit:	01
Material ID:	392667
Material Code:	0001A
Material Name:	#2 fuel oil
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	.00
Units:	Not reported
Recovered:	.00
Oxygenate:	Not reported

107
SSE
1/4-1/2
0.473 mi.
2500 ft.

G A KAYSER & SONS INC
327 ELM ST
BUFFALO, NY 14203

NY LTANKS **U003317387**
NY UST **N/A**

Relative:
Lower

Actual:
612 ft.

LTANKS:

Facility ID:	9207974
Site ID:	119662
Closed Date:	1993-11-23
Spill Number:	9207974
Spill Date:	1992-10-09
Spill Cause:	Tank Failure
Spill Source:	Commercial/Industrial
Spill Class:	C3
Cleanup Ceased:	1993-10-20
SWIS:	1502
Investigator:	RMCROSSE
Referred To:	Not reported
Reported to Dept:	1992-10-09
CID:	Not reported
Water Affected:	Not reported
Spill Notifier:	Responsible Party
Last Inspection:	1993-07-06
Recommended Penalty:	False
Meets Standard:	True
UST Involvement:	True
Remediation Phase:	0
Date Entered In Computer:	1992-10-14
Spill Record Last Update:	2002-11-01
Spiller Name:	Not reported
Spiller Company:	KAYSER BEAUTY SUPPLIES
Spiller Address:	327 ELM STREET
Spiller County:	001
Spiller Contact:	Not reported
Spiller Phone:	Not reported
Spiller Extention:	Not reported
DEC Region:	9
DER Facility ID:	103938
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was RMC 10/09/92: RMC/STEVE L./TELECON - ADVISED OF OPTIONS. WILL USE EXT/CHECK BY NEXT FRIDAY. LETTER SENT. 10/09/92: RMC/STEVE L./PHONE ADVISED OF OPTIONS. WILL USE EXT/CHECK BY NEXT FRIDAY. LETTER SENT. 10/22/92: RMC/STEVE L./PHONE TO REMPVE TANK, SCHEDUAL TO FOLLOW, DUE 11/30/92. 11/02/92: RMC/RECEIVED LETTER CONTRACTED FOR SPRING 93 REMOVAL, CALL 3/15/92 FOR UPDATE. 03/13/93: RNL/GERRY KAISER/PHONE TANK TO BE REMOVED BY GRAND ISLAND SALES AND SERVICE THIS SPRING. UPDATE 4/15/93. 05/19/93: RNL/GERRY KAISER/PHONE TANK TO BE REMOVED BY GRAND ISLAND SALES AND SERVICE THIS SPRING. CALL GI 6/15/93 FOR UPDATE. 07/06/93: RMC/JOHN SIMON GI SALES 773-3527/SITE TANK REMOVED WITH 50 YARDS CONTAMINATED SOIL, NO VISUAL CONTAMINATION LEFT IN HOLE. SAMPLE AND DISPOSAL RECEIPTS DUE 8/30/93. 09/09/93: RMC/LETTER, RESPONSE DUE 10/08/93. 09/22/93: RMC/RECEIVED TEST RESULTS, NO EXCEEDANCES ON HOLE, SOIL REMOVED TESTED NON HAZARDOUS, DISPOSAL RECEIPT DUE 10/30/93. 11/23/93: RMC/RECEIVED DISPOSAL RECEIPT, NO FURTHER ACTION REQUIRED, CLOSE OUT. "
Remarks:	"TANK TEST FAILURE"

All Materials:

Site ID:	119662

G A KAYSER & SONS INC (Continued) **U003317387**

Operable Unit ID: 974788
Operable Unit: 01
Material ID: 561833
Material Code: 0009
Material Name: gasoline
Case No.: Not reported
Material FA: Petroleum
Quantity: .00
Units: G
Recovered: .00
Oxygenate: Not reported

UST:
Id/Status: 9-382760 / Unregulated/Closed
Program Type: PBS
Region: STATE
DEC Region: 9
Expiration Date: N/A
UTM X: 184168.80859
UTM Y: 4755877.17528
Site Type: Other Wholesale/Retail Sales

Affiliation Records:
Site Id: 53420
Affiliation Type: Facility Owner
Company Name: G A KAYSER & SONS INC
Contact Type: Not reported
Contact Name: Not reported
Address1: 327 ELM ST
Address2: Not reported
City: BUFFALO
State: NY
Zip Code: 14203
Country Code: 001
Phone: (716) 854-8444
EMail: Not reported
Fax Number: Not reported
Modified By: TRANSLAT
Date Last Modified: 2004-03-04

Site Id: 53420
Affiliation Type: Mail Contact
Company Name: G A KAYSER & SONS INC
Contact Type: Not reported
Contact Name: Not reported
Address1: 327 ELM ST
Address2: Not reported
City: BUFFALO
State: NY
Zip Code: 14203
Country Code: 001
Phone: (716) 854-8444
EMail: Not reported
Fax Number: Not reported
Modified By: TRANSLAT
Date Last Modified: 2004-03-04

G A KAYSER & SONS INC (Continued) **U003317387**

Site Id:	53420
Affiliation Type:	Facility Operator
Company Name:	G A KAYSER & SONS INC
Contact Type:	Not reported
Contact Name:	G A KAYSER & SONS INC
Address1:	Not reported
Address2:	Not reported
City:	Not reported
State:	NN
Zip Code:	Not reported
Country Code:	001
Phone:	(716) 854-8444
EMail:	Not reported
Fax Number:	Not reported
Modified By:	TRANSLAT
Date Last Modified:	2004-03-04

Site Id:	53420
Affiliation Type:	Emergency Contact
Company Name:	G A KAYSER & SONS INC
Contact Type:	Not reported
Contact Name:	GERALD A KAYSER
Address1:	Not reported
Address2:	Not reported
City:	Not reported
State:	NN
Zip Code:	Not reported
Country Code:	001
Phone:	(716) 854-8444
EMail:	Not reported
Fax Number:	Not reported
Modified By:	TRANSLAT
Date Last Modified:	2004-03-04

Tank Info:

Tank Number:	1
Tank ID:	165126
Tank Status:	Closed - Removed
Material Name:	Closed - Removed
Capacity Gallons:	2000
Install Date:	03/01/1960
Date Tank Closed:	04/01/1993
Registered:	True
Tank Location:	Underground
Tank Type:	Steel/carbon steel
Material Code:	0009
Common Name of Substance:	Gasoline

Tightness Test Method:	03
Date Test:	10/01/1987
Next Test Date:	Not reported
Pipe Model:	Not reported
Modified By:	TRANSLAT
Last Modified:	04/14/2017

Equipment Records:

G A KAYSER & SONS INC (Continued) **U003317387**

D00 - Pipe Type - No Piping
H00 - Tank Leak Detection - None
I00 - Overfill - None
B00 - Tank External Protection - None
F00 - Pipe External Protection - None
A00 - Tank Internal Protection - None
J02 - Dispenser - Suction Dispenser
C02 - Pipe Location - Underground/On-ground
G00 - Tank Secondary Containment - None

108
WNW
1/4-1/2
0.482 mi.
2543 ft.

E.C.C. #36
10 DAYS PARK
BUFFALO, NY 14201

NY LTANKS **U003318038**
NY UST **N/A**
NY Spills

Relative:
Lower

Actual:
626 ft.

LTANKS:

Facility ID:	0375433
Site ID:	257189
Closed Date:	2004-03-02
Spill Number:	0375433
Spill Date:	2003-12-01
Spill Cause:	Tank Test Failure
Spill Source:	Institutional, Educational, Gov., Other
Spill Class:	B3
Cleanup Ceased:	Not reported
SWIS:	1502
Investigator:	JFOTTO
Referred To:	Not reported
Reported to Dept:	2003-12-23
CID:	Not reported
Water Affected:	Not reported
Spill Notifier:	Tank Tester
Last Inspection:	Not reported
Recommended Penalty:	False
Meets Standard:	True
UST Involvement:	False
Remediation Phase:	0
Date Entered In Computer:	2003-12-23
Spill Record Last Update:	2004-03-02
Spiller Name:	WILLIAM MOSS
Spiller Company:	BFLO BOARD OF EDUCATION
Spiller Address:	65 NIAGARA SQUARE RM-406
Spiller County:	001
Spiller Contact:	Not reported
Spiller Phone:	Not reported
Spiller Extention:	Not reported
DEC Region:	9
DER Facility ID:	210585
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was JFO 12/23/03 JFO TELCON WITH BILL MOSS. THE TANK FAILED THE TIGHTNES TEST AND WAS TAKEN OUT OF SERVICE. REPAIRS WILL BE MADE AND THE TANK WILL BE RETESTED. 03/01/04 JFO RECEIVED THE RETEST. TANK PASSED THE TEST. NO FURTHER ACTION REQUIRED. CLOSED"
Remarks:	"TANK TEST FAILURE, ESTERBROOK EZ III PLUS TEST USED, FILL PIPE WAS BENT WHICH COULD BE THE PROBLEM, THEY WILL EXCAVATE THE TANK TOP AND INSTALL A NEW RISER PIPE NEXT WEEK, AFTER THIS HAS BEEN COMPLETED THEY WILL RE-TEST."

E.C.C. #36 (Continued) **U003318038**

All TTF:

Facility ID:	0375433
Spill Number:	0375433
Spill Tank Test:	1529106
Site ID:	257189
Tank Number:	1
Tank Size:	10000
Material:	0001
EPA UST:	Not reported
UST:	Not reported
Cause:	Not reported
Source:	Not reported
Test Method:	00
Test Method 2:	Unknown
Leak Rate:	.00
Gross Fail:	Not reported
Modified By:	Spills
Last Modified Date:	Not reported

All Materials:

Site ID:	257189
Operable Unit ID:	882267
Operable Unit:	01
Material ID:	494620
Material Code:	0001A
Material Name:	#2 fuel oil
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	.00
Units:	G
Recovered:	.00
Oxygenate:	Not reported

Facility ID:	0375434
Site ID:	257190
Closed Date:	2003-12-24
Spill Number:	0375434
Spill Date:	2003-12-23
Spill Cause:	Tank Test Failure
Spill Source:	Institutional, Educational, Gov., Other
Spill Class:	B3
Cleanup Ceased:	Not reported
SWIS:	1502
Investigator:	JFOTTO
Referred To:	Not reported
Reported to Dept:	2003-12-23
CID:	Not reported
Water Affected:	Not reported
Spill Notifier:	Responsible Party
Last Inspection:	Not reported
Recommended Penalty:	False
Meets Standard:	True
UST Involvement:	False
Remediation Phase:	0
Date Entered In Computer:	2003-12-24

E.C.C. #36 (Continued) **U003318038**

Spill Record Last Update:	2003-12-24
Spiller Name:	BILL MOSS
Spiller Company:	BUFFALO PUBLIC SCHOOLS\\
Spiller Address:	406 CITY HALL
Spiller County:	001
Spiller Contact:	JOHN BLAKE
Spiller Phone:	(716) 888-7006
Spiller Extention:	Not reported
DEC Region:	9
DER Facility ID:	210585
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was JFO THIS IS A DUPLICATE SPILL SEE SPILL #0375433. CLOSED THERE IS NO PAPER FILE FOR THIS SPILL"
Remarks:	"TANK TEST FAILURE. THEY WILL CHECK AND REPAIR LINES THEN RETEST."

All Materials:

Site ID:	257190
Operable Unit ID:	882268
Operable Unit:	01
Material ID:	494621
Material Code:	0001A
Material Name:	#2 fuel oil
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	.00
Units:	G
Recovered:	.00
Oxygenate:	Not reported

UST:

Id/Status:	9-425389 / Unregulated/Closed
Program Type:	PBS
Region:	STATE
DEC Region:	9
Expiration Date:	N/A
UTM X:	183029.11226
UTM Y:	4756857.52602
Site Type:	School

Affiliation Records:

Site Id:	54102
Affiliation Type:	Facility Operator
Company Name:	E.C.C. #36
Contact Type:	Not reported
Contact Name:	RICH POWLESS
Address1:	Not reported
Address2:	Not reported
City:	Not reported
State:	NY
Zip Code:	Not reported
Country Code:	001
Phone:	(716) 816-3211
EMail:	Not reported
Fax Number:	Not reported
Modified By:	TJWALKER
Date Last Modified:	2011-01-07

E.C.C. #36 (Continued) **U003318038**

Site Id:	54102
Affiliation Type:	Emergency Contact
Company Name:	BUFFALO BOARD OF EDUCATION
Contact Type:	Not reported
Contact Name:	WILLIAM MOSS
Address1:	Not reported
Address2:	Not reported
City:	Not reported
State:	NN
Zip Code:	Not reported
Country Code:	999
Phone:	(716) 816-3028
EMail:	Not reported
Fax Number:	Not reported
Modified By:	SJSHELLH
Date Last Modified:	2015-09-09

Site Id:	54102
Affiliation Type:	Facility Owner
Company Name:	BUFFALO BOARD OF EDUCATION
Contact Type:	ASSISTANT ENGINEER
Contact Name:	WILLIAM MOSS
Address1:	65 NIAGARA SQUARE ROOM 406
Address2:	Not reported
City:	BUFFALO
State:	NY
Zip Code:	14202
Country Code:	001
Phone:	(716) 816-3028
EMail:	WMOSS@BUFFALOSCHOOLS.ORG
Fax Number:	Not reported
Modified By:	SJSHELLH
Date Last Modified:	2015-09-09

Site Id:	54102
Affiliation Type:	Mail Contact
Company Name:	BUFFALO BOARD OF EDUCATION
Contact Type:	Not reported
Contact Name:	WILLIAM MOSS
Address1:	RM 406 CITY HALL
Address2:	Not reported
City:	BUFFALO
State:	NY
Zip Code:	14202
Country Code:	001
Phone:	(716) 816-3028
EMail:	WMOSS@BUFFALOSCHOOLS.ORG
Fax Number:	Not reported
Modified By:	SLZIEMBA
Date Last Modified:	2012-12-17

Tank Info:

Tank Number:	1
Tank ID:	167278
Tank Status:	Closed - In Place
Material Name:	Closed - In Place

E.C.C. #36 (Continued) **U003318038**

Capacity Gallons:	11500
Install Date:	01/01/1957
Date Tank Closed:	03/22/2012
Registered:	True
Tank Location:	Underground
Tank Type:	Steel/carbon steel
Material Code:	0001
Common Name of Substance:	#2 Fuel Oil (On-Site Consumption)
Tightness Test Method:	21
Date Test:	11/13/2008
Next Test Date:	Not reported
Pipe Model:	Not reported
Modified By:	aeskalsk
Last Modified:	04/14/2017

Equipment Records:

G00 - Tank Secondary Containment - None
C02 - Pipe Location - Underground/On-ground
H00 - Tank Leak Detection - None
I00 - Overfill - None
A00 - Tank Internal Protection - None
B01 - Tank External Protection - Painted/Asphalt Coating
D01 - Pipe Type - Steel/Carbon Steel/Iron
F01 - Pipe External Protection - Painted/Asphalt Coating

SPILLS:

Facility ID:	0911848
Facility Type:	ER
Spill Number:	0911848
DER Facility ID:	210585
Site ID:	424693
DEC Region:	9
Closed Date:	2010-02-11
Spill Cause:	Unknown
Spill Class:	E4
SWIS:	1502
Spill Date:	2010-02-01
Investigator:	FXGALLEG
Referred To:	Not reported
Reported to Dept:	2010-02-08
CID:	Not reported
Water Affected:	Not reported
Spill Source:	Institutional, Educational, Gov., Other
Spill Notifier:	Citizen
Cleanup Ceased:	Not reported
Cleanup Meets Std:	False
Last Inspection:	Not reported
Recommended Penalty:	False
UST Trust:	Not reported
Remediation Phase:	0
Date Entered In Computer:	2010-02-08
Spill Record Last Update:	2010-02-18
Spiller Name:	Not reported
Spiller Company:	BUFFALO BOARD OF EDUCATION
Spiller Address:	65 NIAGARA STREET
Spiller Company:	999

E.C.C. #36 (Continued) **U003318038**

Contact Name:	Not reported
DEC Memo:	"2/8/10 FG SPOKE TO JOHN HANNON WITH THE CITY OF BUFFALO 851-5275. HE SAID THE OPERATING ENGINEER NOTICED A DROP OF PRODUCT IN NOVEMBER AND THEY FOUND OUT ABOUT IT JUST RECENTLY. THEY ARE HAVING SENECA TANK TEST THE UST AND WILL PROVIDE US WITH THE RESULTS. MR. HANNON SAID THERE IS NO ODOR PRESENT AND NO PRODUCT IN SUMPS OR EVIDENT ANYWHERE. 2/11/10 FG SITE INSPECTION. NO PETROLEUM SPILL EVIDENT. SPILL 0911950 OPENED. REFER TO SPILL 0911950. THIS SPILL IS CLOSED. ELECTRONIC FILE ONLY."
Remarks:	"Caller claims tank dropped 20 inches in a day. Claims basement smells like oil."

All Materials:

Site ID:	424693
Operable Unit ID:	1180451
Operable Unit:	01
Material ID:	2174338
Material Code:	0001A
Material Name:	#2 fuel oil
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	Not reported
Units:	G
Recovered:	Not reported
Oxygenate:	Not reported

Facility ID:	0911950
Facility Type:	ER
Spill Number:	0911950
DER Facility ID:	210585
Site ID:	424807
DEC Region:	9
Closed Date:	2010-03-08
Spill Cause:	Unknown
Spill Class:	E6
SWIS:	1502
Spill Date:	2009-11-18
Investigator:	FXGALLEG
Referred To:	Not reported
Reported to Dept:	2010-02-11
CID:	Not reported
Water Affected:	Not reported
Spill Source:	Commercial/Industrial
Spill Notifier:	Other
Cleanup Ceased:	Not reported
Cleanup Meets Std:	False
Last Inspection:	Not reported
Recommended Penalty:	False
UST Trust:	False
Remediation Phase:	0
Date Entered In Computer:	2010-02-11
Spill Record Last Update:	2010-03-08
Spiller Name:	Not reported
Spiller Company:	UNKNOWN
Spiller Address:	Not reported
Spiller Company:	999
Contact Name:	JOHN KOLAGA, ATTORNEY

E.C.C. #36 (Continued) **U003318038**

DEC Memo: "2/11/10 FG SITE INSPECTION. BOILER ROOM HAD NO ODOR OR EVIDENCE OF A SPILL. SUMP IN BOILER ROOM HAD NO EVIDENCE OF A SPILL OF PETROLEUM, ONLY WATER PRESENT. FG SPOKE TO JOHN HEFFRON WITH THE CITY OF BUFFALO. HE SAID HE HAD ELMWOOD TANK TIGHTNESS TEST THE UST TODAY AND IT PASSED. THE CAUSE OF THE 10 INCH DROP IN PRODUCT IS UNKNOWN BUT NO SPILL IS EVIDENT. TIGHTNESS TEST TO BE PROVIDED TO THE DEPT. NO FURTHER ACTION IS NECESSARY. 3/8/10 THE CITY OF BUFFALO PROVIDED THE TIGHTNESS TEST FOR THE 10,000 GALLON HEATING OIL UST AT THE PROPERTY AND THE RESULTS INDICATE A PASS. NO FURTHER WORK IS REQUIRED. THE SITE IS CLOSED."

Remarks: "info received - showed possibly a spill - city of buffalo owns the building - 10 of 10000 gal tank fuel oil dissappeared"

All Materials:

Site ID:	424807
Operable Unit ID:	1180555
Operable Unit:	01
Material ID:	2174505
Material Code:	0003A
Material Name:	#6 fuel oil
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	.00
Units:	G
Recovered:	Not reported
Oxygenate:	Not reported

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109 South 1/2-1 0.636 mi. 3360 ft. **BUFFALO TIN PLATING**
194 OAK ST
BUFFALO, NY 14203

CORRACTS **1000227734**
RCRA NonGen / NLR **NYD002109452**
FINDS
ECHO

Relative: Lower

Actual: 609 ft.

CORRACTS:

EPA ID:	NYD002109452
EPA Region:	02
Area Name:	SITEWIDE
Actual Date:	19930908
Action:	CA075HI - CA Prioritization, Facility or area was assigned a high corrective action priority
NAICS Code(s):	332813 33991 Electroplating, Plating, Polishing, Anodizing, and Coloring Jewelry and Silverware Manufacturing
Original schedule date:	Not reported
Schedule end date:	Not reported

EPA ID:	NYD002109452
EPA Region:	02
Area Name:	SITEWIDE
Actual Date:	20120111
Action:	CA400 - Date For Remedy Selection (CM Imposed)
NAICS Code(s):	332813 33991 Electroplating, Plating, Polishing, Anodizing, and Coloring Jewelry and Silverware Manufacturing
Original schedule date:	Not reported
Schedule end date:	Not reported

BUFFALO TIN PLATING (Continued) **1000227734**

EPA ID: NYD002109452
EPA Region: 02
Area Name: SITEWIDE
Actual Date: 20120111
Action: CA999NF - Corrective Action Process Terminated, No Further Action
NAICS Code(s): 332813 33991
Electroplating, Plating, Polishing, Anodizing, and Coloring
Jewelry and Silverware Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002109452
EPA Region: 02
Area Name: SITEWIDE
Actual Date: 20120111
Action: CA550NR
NAICS Code(s): 332813 33991
Electroplating, Plating, Polishing, Anodizing, and Coloring
Jewelry and Silverware Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002109452
EPA Region: 02
Area Name: SITEWIDE
Actual Date: 20120111
Action: CA070NO - RFA Determination Of Need For An RFI, RFI is Not Necessary
NAICS Code(s): 332813 33991
Electroplating, Plating, Polishing, Anodizing, and Coloring
Jewelry and Silverware Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002109452
EPA Region: 02
Area Name: SITEWIDE
Actual Date: 20040113
Action: CA075LO - CA Prioritization, Facility or area was assigned a low corrective action priority
NAICS Code(s): 332813 33991
Electroplating, Plating, Polishing, Anodizing, and Coloring
Jewelry and Silverware Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002109452
EPA Region: 02
Area Name: SITEWIDE
Actual Date: 19950320
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

BUFFALO TIN PLATING (Continued) **1000227734**

NAICS Code(s): 332813 33991
Electroplating, Plating, Polishing, Anodizing, and Coloring
Jewelry and Silverware Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002109452
EPA Region: 02
Area Name: SITEWIDE
Actual Date: 19950320
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): 332813 33991
Electroplating, Plating, Polishing, Anodizing, and Coloring
Jewelry and Silverware Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002109452
EPA Region: 02
Area Name: SITEWIDE
Actual Date: 19950320
Action: CA050 - RFA Completed
NAICS Code(s): 332813 33991
Electroplating, Plating, Polishing, Anodizing, and Coloring
Jewelry and Silverware Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002109452
EPA Region: 02
Area Name: SITEWIDE
Actual Date: 19950320
Action: CA070NO - RFA Determination Of Need For An RFI, RFI is Not Necessary
NAICS Code(s): 332813 33991
Electroplating, Plating, Polishing, Anodizing, and Coloring
Jewelry and Silverware Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002109452
EPA Region: 02
Area Name: SITEWIDE
Actual Date: 20121130
Action: CA800YE
NAICS Code(s): 332813 33991
Electroplating, Plating, Polishing, Anodizing, and Coloring
Jewelry and Silverware Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

BUFFALO TIN PLATING (Continued) **1000227734**

EPA ID: NYD002109452
EPA Region: 02
Area Name: SITEWIDE
Actual Date: 20121130
Action: CA725YE - Current Human Exposures Under Control, Yes, Current Human Exposures Under Control has been verified
NAICS Code(s): 332813 33991
Electroplating, Plating, Polishing, Anodizing, and Coloring
Jewelry and Silverware Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: NYD002109452
EPA Region: 02
Area Name: SITEWIDE
Actual Date: 20121130
Action: CA750YE - Migration of Contaminated Groundwater under Control, Yes, Migration of Contaminated Groundwater Under Control has been verified
NAICS Code(s): 332813 33991
Electroplating, Plating, Polishing, Anodizing, and Coloring
Jewelry and Silverware Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

RCRA NonGen / NLR:
Date form received by agency: 01/01/2007
Facility name: BUFFALO TIN PLATING
Facility address: 194 OAK ST
BUFFALO, NY 14203
EPA ID: NYD002109452
Mailing address: OA ST
BUFFALO, NY 14203
Contact: ALBERT NUSE
Contact address: OA ST
BUFFALO, NY 14203
Contact country: US
Contact telephone: 716-853-1087
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:
Owner/operator name: NUSE ALBERT H
Owner/operator address: 194 OAK ST
BUFFALO, NY 14203
Owner/operator country: US
Owner/operator telephone: 716-853-1087
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

BUFFALO TIN PLATING (Continued) **1000227734**

Owner/operator name: NUSE ALBERT H
Owner/operator address: 194 OAK ST
OPERCITY, NY 99999
Owner/operator country: US
Owner/operator telephone: 716-853-1087
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
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: Yes
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
Site name: BUFFALO TIN PLATING
Classification: Not a generator, verified

Date form received by agency: 11/19/1980
Site name: BUFFALO TIN PLATING
Classification: Not a generator, verified

. Waste code: D002
. Waste name: CORROSIVE WASTE

Date form received by agency: 08/07/1980
Site name: BUFFALO TIN PLATING
Classification: Not a generator, verified

. Waste code: D002
. Waste name: CORROSIVE WASTE

Date form received by agency: 12/31/1979
Site name: BUFFALO TIN PLATING
Classification: Not a generator, verified

Corrective Action Summary:
Event date: 09/08/1993

BUFFALO TIN PLATING (Continued) **1000227734**

Event: CA PRIORITIZATION-HIGH CA PRIORITY

Event date: 03/20/1995
Event: DETERMINATION OF NEED FOR AN INVESTIGATION-INVESTIGATION IS NOT NECESSARY

Event date: 03/20/1995
Event: RFA COMPLETED

Event date: 03/20/1995
Event: STABILIZATION MEASURES EVALUATION-FACILITY NOT AMENABLE TO STABILIZATION

Event date: 03/20/1995
Event: STABILIZATION MEASURES EVALUATION-FACILITY NOT AMENABLE TO STABILIZATION

Event date: 01/13/2004
Event: CA PRIORITIZATION-LOW CA PRIORITY

Event date: 01/11/2012
Event: CA PROCESS IS TERMINATED-NO FURTHER ACTION

Event date: 01/11/2012
Event: REMEDY DECISION

Event date: 01/11/2012
Event: REMEDY CONSTRUCTION-NO REMEDY CONSTRUCTED

Event date: 01/11/2012
Event: DETERMINATION OF NEED FOR AN INVESTIGATION-INVESTIGATION IS NOT NECESSARY

Event date: 11/30/2012
Event: READY FOR ANTICIPATED USE DETERMINATION - READY FOR ANTICIPATED USE

Event date: 11/30/2012
Event: HUMAN EXPOSURES CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE

Event date: 11/30/2012
Event: RELEASE TO GW CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE

Violation Status: No violations found

Evaluation Action Summary:
Evaluation date: 05/11/1987
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

FINDS:

Registry ID: 110000616370

Environmental Interest/Information System

BUFFALO TIN PLATING (Continued) **1000227734**

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.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1000227734
Registry ID: 110000616370
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110000616370

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110 NNE 1/2-1 0.659 mi. 3477 ft. **OSMOSE WOOD PRESERVING** **NY SHWS** **S118950588**
980 ELLICOTT STREET **N/A**
BUFFALO, NY 14209

Relative: Higher
Actual: 638 ft.

SHWS:
Program: HW
Site Code: 56635
Classification: Site is properly closed - requires continued management.
Region: 9
Acres: 0.5
HW Code: 915143
Record Add: 11/18/1999
Record Upd: 10/31/2016
Updated By: CRSTANIS
Site Description: Location: The Osmose Wood Preserving site is located in a mixed commercial and residential area at 980 Ellicott Street in the City of Buffalo, Erie County. Site Features: The Site itself is an active facility composed of multiple structures and asphalt parking areas. Current Zoning and Land Use: This site is zoned for industrial-manufacturing. Past Use of the Site: Underground storage tanks in the fenced parking lot of Osmose, Inc. were used to store creosote, #2 fuel oil, and other chemicals, which were found leaking in 1989. The tanks were removed from the site. Some soil surrounding the tanks also contained elevated levels of PAHs and were excavated and placed into a lined bio-cell in 1990 to undergo bio-remediation. The bio-remediation was not successful and was suspended in 1996. A site investigation by Osmose in 1993, confirmed the presence of severe environmental problems on-site due to PAHs in soil and groundwater outside the bio-cell area. Pilot studies to determine the effectiveness of in-situ Ozonation Technology was completed in 1994. A non-aqueous phase liquid (NAPL) extraction system was installed to recover the floating oily material in the groundwater in 1995 and has been in operation since then. At present no significant amount of NAPL is being recovered. The Feasibility Study was completed in 1995. The excavation of off-site contaminated soils was completed in 1995. The Record of Decision (ROD) was issued in 1997. Under the selected remedy, the non-aqueous phase liquid is pumped out followed by ozone treatment of contaminated subsurface soils. Construction of an ozone sparge/soil vapor extraction system was completed in 1999. The ozone

OSMOSE WOOD PRESERVING (Continued) **S118950588**

	treatment started in 2002 and was shutdown in 2005 as the soil cleanup levels were met. Groundwater extraction and treatment is on-going to address groundwater contamination. Currently, groundwater and street sanitary sewers are being monitored under the Operation and Monitoring Plan.
Env Problem:	Nature and Extent of Contamination: Prior to Remediation: Contaminants of concern at this site included creosote, #2 fuel oil, Poly-aromatic Hydrocarbons, and other chemicals. These contaminants had been stored in underground storage tanks which had leaked, subsequently contaminating groundwater and soil. Post-Remediation: The remediation of soils is complete and groundwater remediation is still ongoing. Remedial action is preventing off-site migration. Groundwater and street sewers are being monitored under the OM&M Plan.
Health Problem:	Exposures via drinking water are not expected because homes in the area are served by public water and no known private wells exist in the immediate area. Direct contact exposure to site-related contaminants by community members is not expected because the remaining contaminants are located below a paved parking lot and public access to the site is restricted by security guards. A deed restriction is in place to control future digging on the site.
Dump:	False
Structure:	False
Lagoon:	False
Landfill:	False
Pond:	False
Disp Start:	unknown
Disp Term:	1990
Lat/Long:	42:54:16:0 / 78:52:00:0
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:	On-Site Operator
Sub Type:	E
Owner Name:	C/O David V. L. Bradley, Esq.
Owner Company:	Osmose Realty Corporation
Owner Address:	980 ELLICOTT ST.
Owner Addr2:	Not reported
Owner City,St,Zip:	BUFFALO, NY 14209
Owner Country:	United States of America
Own Op:	Owner
Sub Type:	E
Owner Name:	Jon M. Williams
Owner Company:	780 Ellicott Street, LLC
Owner Address:	333 Ganson Street
Owner Addr2:	Not reported
Owner City,St,Zip:	Buffalo, NY 14203
Owner Country:	United States of America
HW Code:	915143
Waste Type:	CREOSOTE (U051)
Waste Quantity:	> 1000 GALLONS
Waste Code:	Not reported
Crossref ID:	NYD002112944
Cross Ref Type Code:	05
Cross Ref Type:	EPA Site ID
Record Added Date:	11/18/1999 12:00:00 PM

OSMOSE WOOD PRESERVING (Continued) **S118950588**

Record Updated: 5/10/2001 4:31:00 PM
Updated By: REGTRANS
Crossref ID: B9-0314-90-01
Cross Ref Type Code: 23
Cross Ref Type: Agreement/Consent Order Number
Record Added Date: 1/30/2009 10:30:00 AM
Record Updated: 1/30/2009 10:30:00 AM
Updated By: DMMOLOUG

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111 FOURTH STREET MGP SITE **NY SHWS** **S103919868**
WSW 43 CAROLINA STREET **N/A**
1/2-1 BUFFALO, NY 14202
0.814 mi.
4299 ft.

Relative: Lower
Actual: 586 ft.

SHWS:
Program: HW
Site Code: 57529
Classification: C
Region: 9
Acres: 5
HW Code: 915167
Record Add: 11/18/1999
Record Upd: 10/20/2016
Updated By: CRSTANIS
Site Description: Site Location: The 5-acre site is located on Fourth and Village Court streets in the City of Buffalo, NY. The site is bounded by the Waterfront School building and the National Fuel Gas Buffalo Service Station on the south, Fourth Street on the west, Pine Harbor Apartments on the east and athletic fields on the north. The site is located in a mixed residential, commercial, and recreational setting approximately 1500 feet east of the Lake Erie shoreline. The highway I-190 is located south west of the site immediately adjacent to Fourth Street. Site Features: Three water lines, over 100-year old major sewer line, and several other utility lines are located at the site. No drinking water wells are located in the vicinity of the site. It is noted that the National Fuel Gas property, located south of the site, is another former Manufactured Gas Plant site (see Site No. C915194). Current Zoning and Land use: The site is currently vacant and zoned as commercial. Past Use of the Site: From 1870 to approximately 1915 the Citizens Gas Works operated an MGP at the site property. This plant produced gas for heating and lighting by heat-treating coal and petroleum products. From 1934 to 1958 a portion of the property was used by the Greyhound Bus Company. Historical information and maps indicate that historical businesses at the site contained coal bins, sand piles, engine rooms, garages, etc. The exact nature of the operation at the Citizens Gas Works is unknown, however, a typical MGP facility produced gas by either a carbonation or gasification process. The carbonation process heated coal in the absence of oxygen to produce primarily a methane and hydrogen gas mixture called coal gas. The gasification process infused steam through hot coal or coke, resulting in the formation of water gas, which consisted primarily of hydrogen and carbon dioxide. Water gas was often combined with oil gas to increase its BTU content. The by-products from these operations included a dense, oily liquid known as coal tar , coke, and ammonia. Large quantities of ash were also produced from the carbonation process. Substantial amounts of tar typically escaped collection and was spilled or disposed onto

FOURTH STREET MGP SITE (Continued) **S103919868**

the land. It is believed that during demolition of the Citizens Gas Works facility, these wastes were covered with various fill materials. The site is currently owned by the Buffalo Urban Renewal Agency (BURA). The following remedial work was conducted at the site: 1991-1992 - The Buffalo Urban Renewal Agency (BURA) undertook an environmental assessment in preparation for a possible residential development. 1996 - NYSDOH conducted sampling of sump water and indoor air in the basement of the adjacent Waterfront School. 1996 - NYSDEC/NYSDOH sampled surface soils, subsurface soils, waste material and groundwater. Based upon the sampling that showed the presence of hazardous waste as defined in the 6NYCRR Part 371, the site was listed as a class 2 site in the Registry of Inactive Hazardous Waste Disposal Sites. 1998-2001 - BURA undertakes a remedial investigation and feasibility study (RI/FS) of the property. The RI/FS by the Buffalo Urban Renewal Agency was completed in 2001. A Record of Decision (ROD) was issued in 2001 requiring the removal of all contaminated tar materials from the site. The Remedial Action implemented by DEC consisted of source removal by excavation and off-site disposal and/or treatment began in 2005 and was completed in early 2006. The excavated areas were backfilled with clean fill and restored as a surface parking lot and driveways for the Waterfront School. At the request of the City of Buffalo the contaminated soil located adjacent and along the 100 year old sewer line was not removed because the excavation would cause damage to the sewer line. The deed restriction signed by the the City of Buffalo includes the restriction on any intrusive work along the sewer line in the future and groundwater restriction. Site Geology and Hydrogeology: In general, fill material is present over the entire site. The depth of fill varies from 4.5 to 14 feet. The fill consists of brick, cement, slag, coal, wood, silt, sand, and gravel. Below this fill material are sediment layers of glacial lake deposits consisting of clay, silt, gravel, and sand. Below the sediment layer is limestone bedrock which is found at an approximate depth of 22 feet below the ground surface. Precipitation onto the top of the land surfaces is collected by area sewers and is treated at the Buffalo Sewer Authority before being discharged into the Niagara River. In the site area, the general groundwater flow direction is towards Lake Erie, however, the hydrology on the south side of the school building is complex due to the building and the former Wilkeson Slip, one of the several boat slips connected to the Erie canal (which is completely filled in and is not visibly noticeable) located at the property line of the school and National Fuel Gas. The groundwater was encountered between 4 to 6 feet below ground surface.

Env Problem: Prior to Remediation: In 1992 the Buffalo Urban Renewal Agency (BURA), the current owner, planned to develop this property and contracted a site investigation. The investigation included the excavation of 29 test pits over the entire property, and installation of four monitoring wells. Black tar was found in one area of the property. Soil/tar and groundwater samples were tested during this phase of investigation. The soil/tar samples contained up to 3300 parts per million (ppm) or milligram per kilogram (mg/kg) of benzene, 3000 ppm of toluene, 2700 ppm of xylenes, 3000 ppm phenolic compounds, and 53,000 ppm of PAHs. The well in the tar area exceeded groundwater standards for benzene, toluene, xylenes, PAHs, and phenolic compounds. In August 1996, NYSDEC/NYSDOH did additional testing. The results from this testing detected surface soil samples containing up to 420 ppm PAHs. The area where surficial contamination

FOURTH STREET MGP SITE (Continued) **S103919868**

	was found, was fenced-in by BURA. The tar material was found to be a hazardous waste as it failed TCLP for benzene. BTEX concentrations in groundwater samples ranged from non-detect to 1,987 parts per billion (ppb). Post Remediation: The remedial activities conducted in 2005-2006 at the site have removed all the hazardous waste and contaminated soil from the site. A small area of contaminated soil along the Swan Sewer line could not be excavated because of the structural concerns for the old brick sewer and is subject to an institutional control. The groundwater monitoring conducted for several years after the completion of remediation shows that the contamination in groundwater has declined significantly and has reached asymptotic levels. No further groundwater monitoring is required for the site.
Health Problem:	Since the site is covered by asphalt or concrete, people will not come into contact with residual contamination in soil that remains along the sewer line or in groundwater unless they dig below the surface. Contaminated groundwater at the site is not used for drinking or other purposes and the site is served by a public water supply that obtains water from a different source not affected by this contamination. Volatile organic compounds in the groundwater may move into the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. Environmental sampling indicates soil vapor intrusion is not a concern.
Dump:	True
Structure:	False
Lagoon:	False
Landfill:	False
Pond:	False
Disp Start:	1900
Disp Term:	unknown
Lat/Long:	42:53:25:0 / 78:53:17:0
Dell:	False
Record Add:	11/18/1999 12:00:00 PM
Record Upd:	7/11/2013 8:36:00 AM
Updated By:	VRNATTAN
Own Op:	On-Site Operator
Sub Type:	NNN
Owner Name:	Not reported
Owner Company:	UNKNOWN3
Owner Address:	Not reported
Owner Addr2:	Not reported
Owner City,St,Zip:	ZZ
Owner Country:	United States of America
Own Op:	Owner
Sub Type:	05
Owner Name:	John Heffron
Owner Company:	City of Buffalo - Urban Renewal
Owner Address:	City Hall - Room 1104
Owner Addr2:	Not reported
Owner City,St,Zip:	Buffalo, NY 14202
Owner Country:	United States of America
HW Code:	915167
Waste Type:	TOLUENE
Waste Quantity:	UNKNOWN

FOURTH STREET MGP SITE (Continued) **S103919868**

Waste Code:	Not reported
HW Code:	915167
Waste Type:	Polycyclic Aromatic Hydrocarbons (PAHs), Total
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	915167
Waste Type:	XYLENE (MIXED)
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	915167
Waste Type:	TARS FROM MANUFACTURED GAS PROCESSES
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	915167
Waste Type:	BENZENE (D018)
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	915167
Waste Type:	COAL TAR
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	915167
Waste Type:	COAL TAR
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

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112 **NIKE BU 09** **FUDS** **1007372646**
SSE **N/A**
1/2-1 **BUFFALO, NY**
0.869 mi.
4590 ft.

Relative: **Lower**
Actual: **604 ft.**

FUDS:

EPA Region:	02
Congressional District:	27
FUDS Number:	C02NY0091
State:	NY
Facility Name:	NIKE BU 09
Fiscal Year:	2013
City:	BUFFALO
Federal Facility ID:	NY9799F1084
Telephone:	978-318-8238
INST ID:	59097
County:	ERIE
RAB:	Not reported
CORPS_DIST:	New England District (NAE)
NPL Status:	Not Listed
CTC:	154.5
Current Owner:	Local Government; Private Sector
Future Prog:	Not reported
Description:	The site is located in Amherst, NY. The former Nike Battery BU-09 was used by the U.S. Army as a Nike Missile Battery and the site was

NIKE BU 09 (Continued) **1007372646**

improved with eighteen buildings, three concrete radar pads, and three missile vaults. There is no evidence that the site was under other than DOD control during the period of DOD ownership and use. Presently, the southern portion of the site is occupied by the Town of Amherst. The Town has renovated many of the buildings and in doing so has eliminated interior asbestos hazards. The Northern portion of the site is occupied by two users. The Town of Amherst owns the area surrounding the launch site. It uses the old vehicle maintenance buildings for police Department Vehicle Maintenance and has a grant to convert the old barracks building for archival storage. The former Launch Site is now leased to Veritay Technology, inc. a research firm that uses the underground bunkers in performance of their tasks.

Current Program: Not reported

History: DOD acquired 50.02 acres fee and 78.11 acres easement throughpurchase and condemnation between 1955 and 1957. On 6/4/1962, 16.73 acres fee and 4.24 acres easement were reassigned to the USARC, Buffalo . This parcel was retained by USAR until excessed to GSA on 1/18/1972. This acreage was conveyed by quitclaim deed to the Town of Amherst on 11/2/1973. The deed restricted use to educational purposes. There were no recapture or restoration clauses in the deed. On 7/6/1965, 33.29 acres fee and 73.77 acres easement were excessed to GSA. Of this, 12.13 acres fee were conveyed to Vincent McGee by quitclaim deed dated 2/20/1967. 21.16 acres fee and0.10 acre easement were conveyed to the A.J. Jurek Post 1762,American Legion by quitclaim deed dated 5/25/1967. There were no restrictions, recapture clause, or restoration provisions in the deed. The remaining 73.77 acre easements have been retained by GSA.

Latitude Degree: 43
Latitude Minute: 3
Latitude Second: 16
Latitude Direction: N
Longitude Degree: -78
Longitude Minute: 43
Longitude Second: 8
Longitude Direction: E

113
SSW
1/2-1
0.891 mi.
4706 ft.

NATIONAL FUEL GAS - BUFFALO SERVICE CENT **EDR MGP** **1008407907**
249 WEST GENESEE STREET **N/A**
BUFFALO, NY 14201

Relative:
Lower

Actual:
586 ft.

Manufactured Gas Plants:
No additional information available

114
SW
1/2-1
0.916 mi.
4839 ft.

4TH STREET SITE
4TH STREET AND TRENTON
BUFFALO, NY 14201

EDR MGP

1008407904
N/A

Relative:
Lower

Actual:
581 ft.

Manufactured Gas Plants:

Alternate Name:CITIZENS GAS LIGHT CO. No additional information available

Count: 1 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
BUFFALO	S113916944	ALLIED CHEMICAL-HOPKINS ST. SITE	NORTH OF SOUTH PARK AND HOPKIN		NY SHWS

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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

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

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

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

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/22/2017
Date Made Active in Reports: 01/05/2018
Number of Days to Update: 14

Source: EPA
Telephone: N/A
Last EDR Contact: 02/06/2018
Next Scheduled EDR Contact: 04/16/2018
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

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

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

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

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/22/2017
Date Made Active in Reports: 01/05/2018
Number of Days to Update: 14

Source: EPA
Telephone: N/A
Last EDR Contact: 02/06/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

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

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

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

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: 12/11/2017
Date Data Arrived at EDR: 12/22/2017
Date Made Active in Reports: 01/05/2018
Number of Days to Update: 14

Source: EPA
Telephone: N/A
Last EDR Contact: 02/06/2018
Next Scheduled EDR Contact: 04/16/2018
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

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

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

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 01/05/2018
Next Scheduled EDR Contact: 04/16/2018
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

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

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/22/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 21

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 02/06/2018
Next Scheduled EDR Contact: 04/30/2018
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

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

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/22/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 21
Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 02/06/2018
Next Scheduled EDR Contact: 04/30/2018
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/26/2017
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 45
Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 04/09/2018
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

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

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/26/2017
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 45
Source: Environmental Protection Agency
Telephone: (212) 637-3660
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 04/09/2018
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

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

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/26/2017
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 45
Source: Environmental Protection Agency
Telephone: (212) 637-3660
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 04/09/2018
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: 12/11/2017
Date Data Arrived at EDR: 12/26/2017
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 45

Source: Environmental Protection Agency
Telephone: (212) 637-3660
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 04/09/2018
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

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

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/26/2017
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 45

Source: Environmental Protection Agency
Telephone: (212) 637-3660
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 04/09/2018
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

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

Date of Government Version: 05/22/2017
Date Data Arrived at EDR: 06/13/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 94

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 02/09/2018
Next Scheduled EDR Contact: 05/28/2018
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

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

Date of Government Version: 11/13/2017
Date Data Arrived at EDR: 11/27/2017
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 74

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 02/27/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

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

Date of Government Version: 11/13/2017
Date Data Arrived at EDR: 11/27/2017
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 74

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 02/27/2018
Next Scheduled EDR Contact: 06/11/2018
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: 09/18/2017
Date Data Arrived at EDR: 09/21/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 22

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 04/09/2018
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

SHWS: Inactive Hazardous Waste Disposal Sites in New York State

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

Date of Government Version: 08/15/2017
Date Data Arrived at EDR: 08/17/2017
Date Made Active in Reports: 10/24/2017
Number of Days to Update: 68

Source: Department of Environmental Conservation
Telephone: 518-402-9622
Last EDR Contact: 02/14/2018
Next Scheduled EDR Contact: 05/28/2018
Data Release Frequency: Annually

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

SWF/LF: Facility Register

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

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

Source: Department of Environmental Conservation
Telephone: 518-457-2051
Last EDR Contact: 01/02/2018
Next Scheduled EDR Contact: 04/16/2018
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

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

Date of Government Version: 04/25/2017
Date Data Arrived at EDR: 11/07/2017
Date Made Active in Reports: 12/08/2017
Number of Days to Update: 31

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 04/13/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 05/01/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78
Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

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

Date of Government Version: 04/14/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71
Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

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

Date of Government Version: 04/24/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71
Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 10/14/2016
Date Data Arrived at EDR: 01/27/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 98
Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Semi-Annually

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 04/26/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78
Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

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

Date of Government Version: 04/14/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71
Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

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

Date of Government Version: 02/12/2018
Date Data Arrived at EDR: 02/14/2018
Date Made Active in Reports: 03/16/2018
Number of Days to Update: 30
Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 02/14/2018
Next Scheduled EDR Contact: 05/28/2018
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

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 05/15/2017
Date Data Arrived at EDR: 05/30/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 136

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 01/09/2018
Next Scheduled EDR Contact: 04/23/2018
Data Release Frequency: Varies

UST: Petroleum Bulk Storage (PBS) Database

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

Date of Government Version: 12/22/2017
Date Data Arrived at EDR: 12/26/2017
Date Made Active in Reports: 01/29/2018
Number of Days to Update: 34

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 12/26/2017
Next Scheduled EDR Contact: 04/09/2018
Data Release Frequency: No Update Planned

CBS UST: Chemical Bulk Storage Database

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

Date of Government Version: 01/01/2002
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: No Update Planned

CBS: Chemical Bulk Storage Site Listing

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

Date of Government Version: 12/22/2017
Date Data Arrived at EDR: 12/26/2017
Date Made Active in Reports: 01/29/2018
Number of Days to Update: 34

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 12/26/2017
Next Scheduled EDR Contact: 04/09/2018
Data Release Frequency: Quarterly

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: 12/22/2017
Date Data Arrived at EDR: 12/26/2017
Date Made Active in Reports: 01/29/2018
Number of Days to Update: 34

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 12/26/2017
Next Scheduled EDR Contact: 04/09/2018
Data Release Frequency: Quarterly

AST: Petroleum Bulk Storage

Registered Aboveground Storage Tanks.

Date of Government Version: 12/22/2017
Date Data Arrived at EDR: 12/26/2017
Date Made Active in Reports: 01/29/2018
Number of Days to Update: 34

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 12/26/2017
Next Scheduled EDR Contact: 04/09/2018
Data Release Frequency: No Update Planned

CBS AST: Chemical Bulk Storage Database

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

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

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

MOSF AST: Major Oil Storage Facilities Database

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

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

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

INDIAN UST 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: 05/01/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/26/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 10/14/2016
Date Data Arrived at EDR: 01/27/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 98

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Semi-Annually

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 04/25/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

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

Date of Government Version: 04/13/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 04/24/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 12/08/2017
Number of Days to Update: 134

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

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

Date of Government Version: 05/02/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

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

Date of Government Version: 04/14/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

TANKS: Storage Tank Faciliy 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: 12/22/2017
Date Data Arrived at EDR: 12/26/2017
Date Made Active in Reports: 01/29/2018
Number of Days to Update: 34

Source: Department of Environmental Conservation
Telephone: 518-402-9543
Last EDR Contact: 12/26/2017
Next Scheduled EDR Contact: 04/09/2018
Data Release Frequency: Quarterly

State and tribal institutional control / engineering control registries

ENV RES DECL: Environmental Restrictive Declarations

The Environmental Restrictive Declarations (ERD) listed were recorded in connection with a zoning action against the noted Tax Blocks and Tax Lots, or portion thereof, and are available in the property records on file at the Office of the City Register for Bronx, Kings, New York and Queens counties or at the Richmond County Clerk's office. They contain environmental requirements with respect to hazardous materials, air quality and/or noise in accordance with Section 11-15 of this Resolution.

Date of Government Version: 06/27/2017
Date Data Arrived at EDR: 09/21/2017
Date Made Active in Reports: 09/22/2017
Number of Days to Update: 1

Source: New York City Department of City Planning
Telephone: 212-720-3300
Last EDR Contact: 12/18/2017
Next Scheduled EDR Contact: 04/02/2018
Data Release Frequency: Varies

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: 06/30/2014
Date Made Active in Reports: 07/21/2014
Number of Days to Update: 21

Source: NYC Department of City Planning
Telephone: 212-720-3401
Last EDR Contact: 12/22/2017
Next Scheduled EDR Contact: 04/02/2018
Data Release Frequency: Varies

ENG CONTROLS: Registry of Engineering Controls

Environmental Remediation sites that have engineering controls in place.

Date of Government Version: 08/15/2017
Date Data Arrived at EDR: 08/17/2017
Date Made Active in Reports: 10/24/2017
Number of Days to Update: 68

Source: Department of Environmental Conservation
Telephone: 518-402-9553
Last EDR Contact: 02/14/2018
Next Scheduled EDR Contact: 05/28/2018
Data Release Frequency: Quarterly

INST CONTROL: Registry of Institutional Controls

Environmental Remediation sites that have institutional controls in place.

Date of Government Version: 08/15/2017
Date Data Arrived at EDR: 08/17/2017
Date Made Active in Reports: 10/24/2017
Number of Days to Update: 68

Source: Department of Environmental Conservation
Telephone: 518-402-9553
Last EDR Contact: 02/14/2018
Next Scheduled EDR Contact: 05/28/2018
Data Release Frequency: Quarterly

State and tribal voluntary cleanup sites

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

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: 08/15/2017
Date Data Arrived at EDR: 08/17/2017
Date Made Active in Reports: 10/24/2017
Number of Days to Update: 68

Source: Department of Environmental Conservation
Telephone: 518-402-9711
Last EDR Contact: 02/14/2018
Next Scheduled EDR Contact: 05/28/2018
Data Release Frequency: Semi-Annually

VCP NYC: Voluntary Cleanup Program Listing NYC

New York City voluntary cleanup program sites.

Date of Government Version: 10/04/2017
Date Data Arrived at EDR: 10/06/2017
Date Made Active in Reports: 11/13/2017
Number of Days to Update: 38

Source: New York City Office of Environmental Protection
Telephone: 212-788-8841
Last EDR Contact: 03/15/2018
Next Scheduled EDR Contact: 07/02/2018
Data Release Frequency: Varies

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: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 12/20/2017
Next Scheduled EDR Contact: 04/09/2018
Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Brownfields Site List

A Brownfield is any real property where redevelopment or re-use may be complicated by the presence or potential presence of a hazardous waste, petroleum, pollutant, or contaminant.

Date of Government Version: 08/15/2017
Date Data Arrived at EDR: 08/17/2017
Date Made Active in Reports: 10/24/2017
Number of Days to Update: 68

Source: Department of Environmental Conservation
Telephone: 518-402-9764
Last EDR Contact: 02/14/2018
Next Scheduled EDR Contact: 05/28/2018
Data Release Frequency: Semi-Annually

ERP: Environmental Restoration Program Listing

In an effort to spur the cleanup and redevelopment of brownfields, New Yorkers approved a $200 million Environmental Restoration or Brownfields Fund as part of the $1.75 billion Clean Water/Clean Air Bond Act of 1996 (1996 Bond Act). Enhancements to the program were enacted on October 7, 2003. Under the Environmental Restoration Program, the State provides grants to municipalities to reimburse up to 90 percent of on-site eligible costs and 100% of off-site eligible costs for site investigation and remediation activities. Once remediated, the property may then be reused for commercial, industrial, residential or public use.

Date of Government Version: 08/15/2017
Date Data Arrived at EDR: 08/17/2017
Date Made Active in Reports: 10/24/2017
Number of Days to Update: 68

Source: Department of Environmental Conservation
Telephone: 518-402-9622
Last EDR Contact: 02/14/2018
Next Scheduled EDR Contact: 05/28/2018
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 01/19/2018
Date Data Arrived at EDR: 01/19/2018
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 04/02/2018
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY: Registered Recycling Facility List

A listing of recycling facilities.

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

Source: Department of Environmental Conservation
Telephone: 518-402-8705
Last EDR Contact: 01/02/2018
Next Scheduled EDR Contact: 04/16/2018
Data Release Frequency: Quarterly

SWTIRE: Registered Waste Tire Storage & Facility List

A listing of facilities registered to accept waste tires.

Date of Government Version: 12/12/2017
Date Data Arrived at EDR: 12/14/2017
Date Made Active in Reports: 01/31/2018
Number of Days to Update: 48

Source: Department of Environmental Conservation
Telephone: 518-402-8694
Last EDR Contact: 03/07/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: No Update Planned

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
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: 01/30/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Varies

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
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: 01/22/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land

A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 02/02/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 01/19/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 16

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 02/27/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: No Update Planned

DEL SHWS: Delisted Registry Sites

A database listing of sites delisted from the Registry of Inactive Hazardous Waste Disposal Sites.

Date of Government Version: 08/15/2017
Date Data Arrived at EDR: 08/17/2017
Date Made Active in Reports: 09/22/2017
Number of Days to Update: 36

Source: Department of Environmental Conservation
Telephone: 518-402-9622
Last EDR Contact: 02/14/2018
Next Scheduled EDR Contact: 05/28/2018
Data Release Frequency: Annually

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: 01/09/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 16

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 02/27/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Quarterly

Local Lists of Registered Storage Tanks

HIST UST: Historical Petroleum Bulk Storage Database

These facilities have petroleum storage capacities in excess of 1,100 gallons and less than 400,000 gallons. This database contains detailed information per site. It is no longer updated due to the sensitive nature of the information involved. See UST for more current data.

Date of Government Version: 01/01/2002
Date Data Arrived at EDR: 06/02/2006
Date Made Active in Reports: 07/20/2006
Number of Days to Update: 48

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 10/23/2006
Next Scheduled EDR Contact: 01/22/2007
Data Release Frequency: Varies

HIST AST: Historical Petroleum Bulk Storage Database

These facilities have petroleum storage capabilities in excess of 1,100 gallons and less than 400,000 gallons. This database contains detailed information per site. No longer updated due to the sensitive nature of the information involved. See AST for more current data.

Date of Government Version: 01/01/2002
Date Data Arrived at EDR: 06/02/2006
Date Made Active in Reports: 07/20/2006
Number of Days to Update: 48

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 10/23/2006
Next Scheduled EDR Contact: 01/22/2007
Data Release Frequency: No Update Planned

Local Land Records

LIENS: Spill Liens Information

Lien information from the Oil Spill Fund.

Date of Government Version: 11/06/2017
Date Data Arrived at EDR: 11/07/2017
Date Made Active in Reports: 11/13/2017
Number of Days to Update: 6

Source: Office of the State Comptroller
Telephone: 518-474-9034
Last EDR Contact: 02/05/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/22/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 02/06/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 09/21/2017
Date Data Arrived at EDR: 09/21/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 22

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 04/09/2018
Data Release Frequency: Quarterly

SPILLS: Spills Information Database

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

Date of Government Version: 02/12/2018
Date Data Arrived at EDR: 02/14/2018
Date Made Active in Reports: 03/16/2018
Number of Days to Update: 30

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 02/14/2018
Next Scheduled EDR Contact: 05/28/2018
Data Release Frequency: Varies

HIST SPILLS: SPILLS Database

This database contains records of chemical and petroleum spill incidents. Under State law, petroleum and hazardous chemical spills that can impact the waters of the state must be reported by the spiller (and, in some cases, by anyone who has knowledge of the spills). In 2002, the Department of Environmental Conservation stopped providing updates to its original Spills Information Database. This database includes fields that are no longer available from the NYDEC as of January 1, 2002. Current information may be found in the NY SPILLS database. Department of Environmental Conservation.

Date of Government Version: 01/01/2002
Date Data Arrived at EDR: 07/08/2005
Date Made Active in Reports: 07/14/2005
Number of Days to Update: 6

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 07/07/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 12/14/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/12/2013
Number of Days to Update: 40

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SPILLS 80: SPILLS80 data from FirstSearch

Spills 80 includes those spill and release records available from FirstSearch databases prior to 1990. Typically, they may include chemical, oil and/or hazardous substance spills recorded before 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 80.

Date of Government Version: 11/02/2010
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 03/07/2013
Number of Days to Update: 63

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/26/2017
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 45

Source: Environmental Protection Agency
Telephone: (212) 637-3660
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 04/09/2018
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/31/2015
Date Data Arrived at EDR: 07/08/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 97

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 02/21/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 10/13/2017
Next Scheduled EDR Contact: 01/22/2018
Data Release Frequency: Semi-Annually

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: 10/11/2017
Next Scheduled EDR Contact: 01/22/2018
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 02/16/2018
Next Scheduled EDR Contact: 05/28/2018
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 01/11/2018
Date Data Arrived at EDR: 01/19/2018
Date Made Active in Reports: 03/02/2018
Number of Days to Update: 42

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 04/09/2018
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 01/31/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 04/22/2013
Date Data Arrived at EDR: 03/03/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 6

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 02/08/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 06/21/2017
Date Made Active in Reports: 01/05/2018
Number of Days to Update: 198

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 12/22/2017
Next Scheduled EDR Contact: 04/02/2018
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 01/10/2018
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 2

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 02/23/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
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: 01/25/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/22/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 21

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 03/09/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 11/02/2017
Date Data Arrived at EDR: 11/17/2017
Date Made Active in Reports: 12/08/2017
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
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

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 10/17/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 3

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 02/06/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 06/01/2017
Date Data Arrived at EDR: 06/09/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 126

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 01/12/2018
Next Scheduled EDR Contact: 04/23/2018
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 01/09/2018
Next Scheduled EDR Contact: 04/23/2018
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Quarterly

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 08/30/2016
Date Data Arrived at EDR: 09/08/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 43
Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 03/09/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 03/06/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 05/24/2017
Date Data Arrived at EDR: 11/30/2017
Date Made Active in Reports: 12/15/2017
Number of Days to Update: 15
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 01/26/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 10/02/2017
Date Data Arrived at EDR: 10/05/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 01/04/2018
Next Scheduled EDR Contact: 04/16/2018
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 11/10/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 63

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 01/04/2018
Next Scheduled EDR Contact: 04/02/2018
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 09/28/2017
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 02/23/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 01/09/2018
Next Scheduled EDR Contact: 04/23/2018
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 12/23/2016
Date Data Arrived at EDR: 12/27/2016
Date Made Active in Reports: 02/17/2017
Number of Days to Update: 52

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 06/23/2017
Date Data Arrived at EDR: 10/11/2017
Date Made Active in Reports: 11/03/2017
Number of Days to Update: 23

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 02/23/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 01/09/2018
Date Data Arrived at EDR: 02/06/2018
Date Made Active in Reports: 03/02/2018
Number of Days to Update: 24

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 02/06/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 10/29/2017
Date Data Arrived at EDR: 11/28/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 45

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 02/28/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 03/02/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 03/02/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 09/25/2017
Date Data Arrived at EDR: 09/26/2017
Date Made Active in Reports: 10/20/2017
Number of Days to Update: 24

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 03/07/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 07/23/2017
Date Data Arrived at EDR: 09/06/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 9

Source: EPA
Telephone: (212) 637-3000
Last EDR Contact: 02/23/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 09/30/2016
Date Data Arrived at EDR: 10/31/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 73

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 01/02/2018
Next Scheduled EDR Contact: 04/30/2018
Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 01/13/2018
Date Data Arrived at EDR: 01/19/2018
Date Made Active in Reports: 03/02/2018
Number of Days to Update: 42

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 03/07/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Quarterly

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 06/27/2017
Date Data Arrived at EDR: 11/21/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 03/02/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Varies

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 11/20/2017
Date Data Arrived at EDR: 11/20/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 53

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 02/21/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Quarterly

AIRS: Air Emissions Data

Point source emissions inventory data.

Date of Government Version: 11/06/2017
Date Data Arrived at EDR: 11/07/2017
Date Made Active in Reports: 11/13/2017
Number of Days to Update: 6

Source: Department of Environmental Conservation
Telephone: 518-402-8452
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Annually

COAL ASH: Coal Ash Disposal Site Listing
A listing of coal ash disposal site locations.

Date of Government Version: 09/25/2017
Date Data Arrived at EDR: 09/26/2017
Date Made Active in Reports: 10/12/2017
Number of Days to Update: 16

Source: Department of Environmental Conservation
Telephone: 518-402-8660
Last EDR Contact: 01/02/2018
Next Scheduled EDR Contact: 04/16/2018
Data Release Frequency: Quarterly

DRYCLEANERS: Registered Drycleaners
A listing of all registered drycleaning facilities.

Date of Government Version: 11/22/2017
Date Data Arrived at EDR: 12/14/2017
Date Made Active in Reports: 01/29/2018
Number of Days to Update: 46

Source: Department of Environmental Conservation
Telephone: 518-402-8403
Last EDR Contact: 03/07/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Annually

E DESIGNATION: E DESIGNATION SITE LISTING
The (E (Environmental)) designation would ensure that sampling and remediation take place on the subject properties, and would avoid any significant impacts related to hazardous materials at these locations. The (E) designations would require that the fee owner of the sites conduct a testing and sampling protocol, and remediation where appropriate, to the satisfaction of the NYCDEP before the issuance of a building permit by the Department of Buildings pursuant to the provisions of Section 11-15 of the Zoning Resolution (Environmental Requirements). The (E) designations also include a mandatory construction-related health and safety plan which must be approved by NYCDEP.

Date of Government Version: 10/31/2017
Date Data Arrived at EDR: 12/20/2017
Date Made Active in Reports: 01/29/2018
Number of Days to Update: 40

Source: New York City Department of City Planning
Telephone: 718-595-6658
Last EDR Contact: 12/18/2017
Next Scheduled EDR Contact: 04/02/2018
Data Release Frequency: Semi-Annually

Financial Assurance 1: Financial Assurance Information Listing
Financial assurance information.

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

Source: Department of Environmental Conservation
Telephone: 518-402-8660
Last EDR Contact: 01/02/2018
Next Scheduled EDR Contact: 04/16/2018
Data Release Frequency: Quarterly

Financial Assurance 2: Financial Assurance Information Listing
A listing of financial assurance information for hazardous waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 03/09/2017
Date Data Arrived at EDR: 04/12/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 184

Source: Department of Environmental Conservation
Telephone: 518-402-8712
Last EDR Contact: 03/07/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Varies

HSWDS: Hazardous Substance Waste Disposal Site Inventory
The list includes any known or suspected hazardous substance waste disposal sites. Also included are sites delisted from the Registry of Inactive Hazardous Waste Disposal Sites and non-Registry sites that U.S. EPA Preliminary Assessment (PA) reports or Site Investigation (SI) reports were prepared. Hazardous Substance Waste Disposal Sites are eligible to be Superfund sites now that the New York State Superfund has been refinanced and changed. This means that the study inventory has served its purpose and will no longer be maintained as a separate entity. The last version of the study inventory is frozen in time. The sites on the study will not automatically be made Superfund sites, rather each site will be further evaluated for listing on the Registry. So overtime they will be added to the registry or not.

Date of Government Version: 01/01/2003
Date Data Arrived at EDR: 10/20/2006
Date Made Active in Reports: 11/30/2006
Number of Days to Update: 41

Source: Department of Environmental Conservation
Telephone: 518-402-9564
Last EDR Contact: 05/26/2009
Next Scheduled EDR Contact: 08/24/2009
Data Release Frequency: No Update Planned

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 01/31/2018
Date Made Active in Reports: 03/09/2018
Number of Days to Update: 37

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 01/31/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Quarterly

SPDES: State Pollutant Discharge Elimination System

New York State has a state program which has been approved by the United States Environmental Protection Agency for the control of wastewater and stormwater discharges in accordance with the Clean Water Act. Under New York State law the program is known as the State Pollutant Discharge Elimination System (SPDES) and is broader in scope than that required by the Clean Water Act in that it controls point source discharges to groundwaters as well as surface waters.

Date of Government Version: 10/25/2017
Date Data Arrived at EDR: 10/27/2017
Date Made Active in Reports: 11/28/2017
Number of Days to Update: 32

Source: Department of Environmental Conservation
Telephone: 518-402-8233
Last EDR Contact: 03/14/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: No Update Planned

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: 05/01/2017
Date Data Arrived at EDR: 05/18/2017
Date Made Active in Reports: 09/22/2017
Number of Days to Update: 127

Source: Department of Environmenal Conservation
Telephone: 518-402-9814
Last EDR Contact: 02/15/2018
Next Scheduled EDR Contact: 05/28/2018
Data Release Frequency: Varies

UIC: Underground Injection Control Wells

A listing of enhanced oil recovery underground injection wells.

Date of Government Version: 12/03/2017
Date Data Arrived at EDR: 12/06/2017
Date Made Active in Reports: 01/31/2018
Number of Days to Update: 56

Source: Department of Environmental Conservation
Telephone: 518-402-8056
Last EDR Contact: 03/08/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Quarterly

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS: Recovered Government Archive State Hazardous Waste Facilities List

The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Conservation in New York.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: Department of Environmental Conservation
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Conservation in New York.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/10/2014
Number of Days to Update: 193

Source: Department of Environmental Conservation
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

COUNTY RECORDS

CORTLAND COUNTY:

Cortland County Storage Tank Listing
A listing of aboveground storage tank sites located in Cortland County.

Date of Government Version: 09/26/2017
Date Data Arrived at EDR: 11/20/2017
Date Made Active in Reports: 11/29/2017
Number of Days to Update: 9

Source: Cortland County Health Department
Telephone: 607-753-5035
Last EDR Contact: 01/29/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Quarterly

Cortland County Storage Tank Listing
A listing of underground storage tank sites located in Cortland County.

Date of Government Version: 09/26/2017
Date Data Arrived at EDR: 11/20/2017
Date Made Active in Reports: 11/29/2017
Number of Days to Update: 9

Source: Cortland County Health Department
Telephone: 607-753-5035
Last EDR Contact: 01/29/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Quarterly

NASSAU COUNTY:

Registered Tank Database
A listing of aboveground storage tank sites located in Nassau County.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 02/15/2017
Number of Days to Update: 35

Source: Nassau County Health Department
Telephone: 516-571-3314
Last EDR Contact: 01/29/2018
Next Scheduled EDR Contact: 05/14/2018
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: 01/29/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Varies

Registered Tank Database in Nassau County
A listing of facilities in Nassau County with storage tanks.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 02/15/2017
Number of Days to Update: 35

Source: Nassau County Department of Health
Telephone: 516-227-9691
Last EDR Contact: 01/29/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Varies

Registered Tank Database
A listing of underground storage tank sites located in Nassau County.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 02/15/2017
Number of Days to Update: 35

Source: Nassau County Health Department
Telephone: 516-571-3314
Last EDR Contact: 01/29/2018
Next Scheduled EDR Contact: 05/14/2018
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: 01/29/2018
Next Scheduled EDR Contact: 05/14/2018
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: 02/02/2017
Date Data Arrived at EDR: 03/17/2017
Date Made Active in Reports: 09/22/2017
Number of Days to Update: 189
Source: Rockland County Health Department
Telephone: 914-364-2605
Last EDR Contact: 03/01/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Quarterly

Petroleum Bulk Storage Database
A listing of underground storage tank sites located in Rockland County.

Date of Government Version: 02/02/2017
Date Data Arrived at EDR: 03/17/2017
Date Made Active in Reports: 09/22/2017
Number of Days to Update: 189
Source: Rockland County Health Department
Telephone: 914-364-2605
Last EDR Contact: 03/01/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Quarterly

SUFFOLK COUNTY:

Storage Tank Database
A listing of aboveground storage tank sites located in Suffolk County.

Date of Government Version: 03/03/2015
Date Data Arrived at EDR: 03/10/2015
Date Made Active in Reports: 03/23/2015
Number of Days to Update: 13
Source: Suffolk County Department of Health Services
Telephone: 631-854-2521
Last EDR Contact: 02/23/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: No Update Planned

Storage Tank Database
A listing of underground storage tank sites located in Suffolk County.

Date of Government Version: 03/03/2015
Date Data Arrived at EDR: 03/10/2015
Date Made Active in Reports: 03/23/2015
Number of Days to Update: 13
Source: Suffolk County Department of Health Services
Telephone: 631-854-2521
Last EDR Contact: 02/23/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: No Update Planned

WESTCHESTER COUNTY:

Listing of Storage Tanks
A listing of aboveground storage tank sites located in Westchester County.

Date of Government Version: 10/19/2017
Date Data Arrived at EDR: 11/21/2017
Date Made Active in Reports: 11/29/2017
Number of Days to Update: 8
Source: Westchester County Department of Health
Telephone: 914-813-5161
Last EDR Contact: 01/29/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Semi-Annually

Listing of Storage Tanks

A listing of underground storage tank sites located in Westchester County.

Date of Government Version: 10/19/2017
Date Data Arrived at EDR: 11/21/2017
Date Made Active in Reports: 11/29/2017
Number of Days to Update: 8

Source: Westchester County Department of Health
Telephone: 914-813-5161
Last EDR Contact: 01/29/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Semi-Annually

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 11/11/2017
Date Data Arrived at EDR: 11/14/2017
Date Made Active in Reports: 12/18/2017
Number of Days to Update: 34

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 02/14/2018
Next Scheduled EDR Contact: 05/28/2018
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 04/11/2017
Date Made Active in Reports: 07/27/2017
Number of Days to Update: 107

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 01/05/2018
Next Scheduled EDR Contact: 04/23/2018
Data Release Frequency: Annually

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 07/25/2017
Date Made Active in Reports: 09/25/2017
Number of Days to Update: 62

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 01/16/2018
Next Scheduled EDR Contact: 04/30/2018
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 06/19/2015
Date Made Active in Reports: 07/15/2015
Number of Days to Update: 26

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 02/21/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Annually

VT MANIFEST: Hazardous Waste Manifest Data

Hazardous waste manifest information.

Date of Government Version: 01/12/2018
Date Data Arrived at EDR: 01/19/2018
Date Made Active in Reports: 02/13/2018
Number of Days to Update: 25

Source: Department of Environmental Conservation
Telephone: 802-241-3443
Last EDR Contact: 01/12/2018
Next Scheduled EDR Contact: 04/30/2018
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 04/13/2017
Date Made Active in Reports: 07/14/2017
Number of Days to Update: 92

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 03/08/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: PennWell Corporation
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data
Source: PennWell Corporation
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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Day Care Providers
Source: Department of Health
Telephone: 212-676-2444

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Freshwater Wetlands
Source: Department of Environmental Conservation
Telephone: 518-402-8961

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

8 ST. LOUIS PL.
8 ST. LOUIS PL.
BUFFALO, NY 14202

TARGET PROPERTY COORDINATES

Latitude (North):	42.896236 - 42° 53' 46.45''
Longitude (West):	78.872419 - 78° 52' 20.71''
Universal Tranverse Mercator:	Zone 17
UTM X (Meters):	673715.1
UTM Y (Meters):	4751273.0
Elevation:	634 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5937939 BUFFALO NE, NY
Version Date:	2013
Northwest Map:	5938774 BUFFALO NW, NY
Version Date:	2013

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal 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).

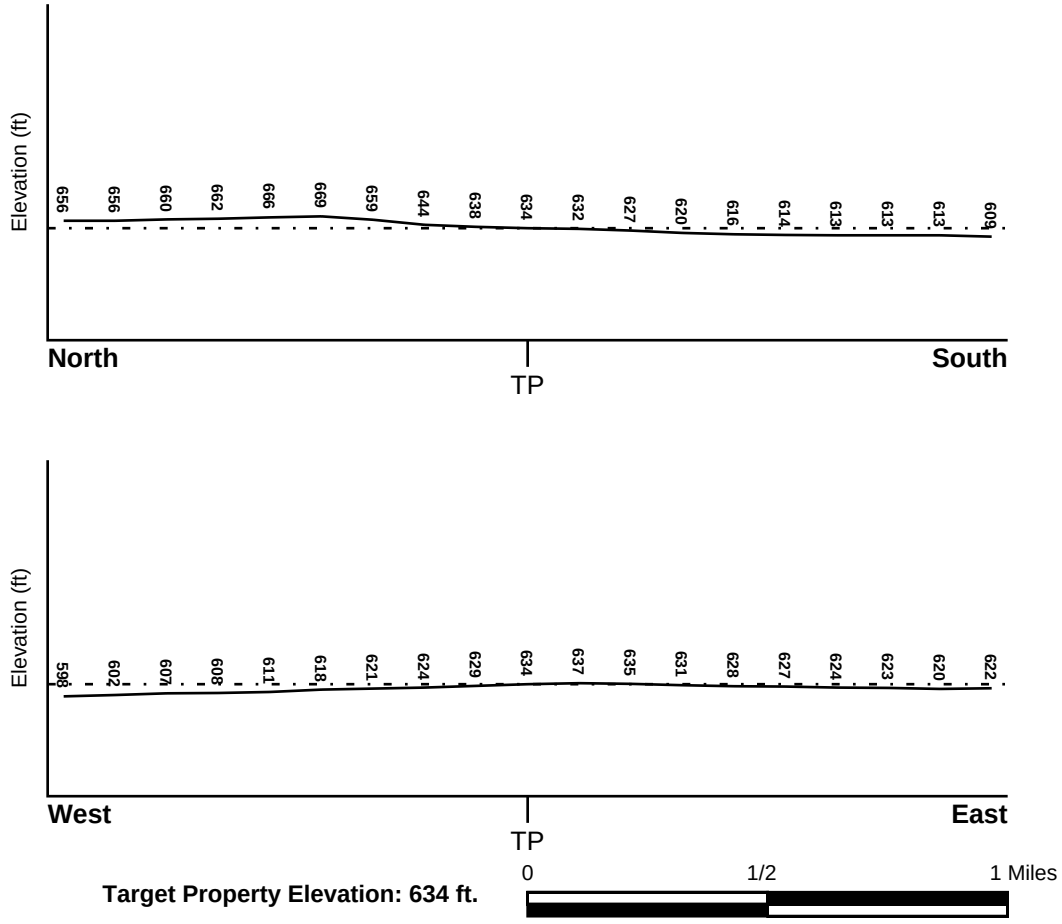
TOPOGRAPHIC INFORMATION

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 SSW

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

Flood Plain Panel at Target Property	FEMA Source Type
3602300015B	FEMA Q3 Flood data

Additional Panels in search area:	FEMA Source Type
3602300020B	FEMA Q3 Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
BUFFALO NE	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
11	1/2 - 1 Mile SW	N
16	1/2 - 1 Mile West	W
3G	1/2 - 1 Mile West	W
4G	1/2 - 1 Mile SW	N

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

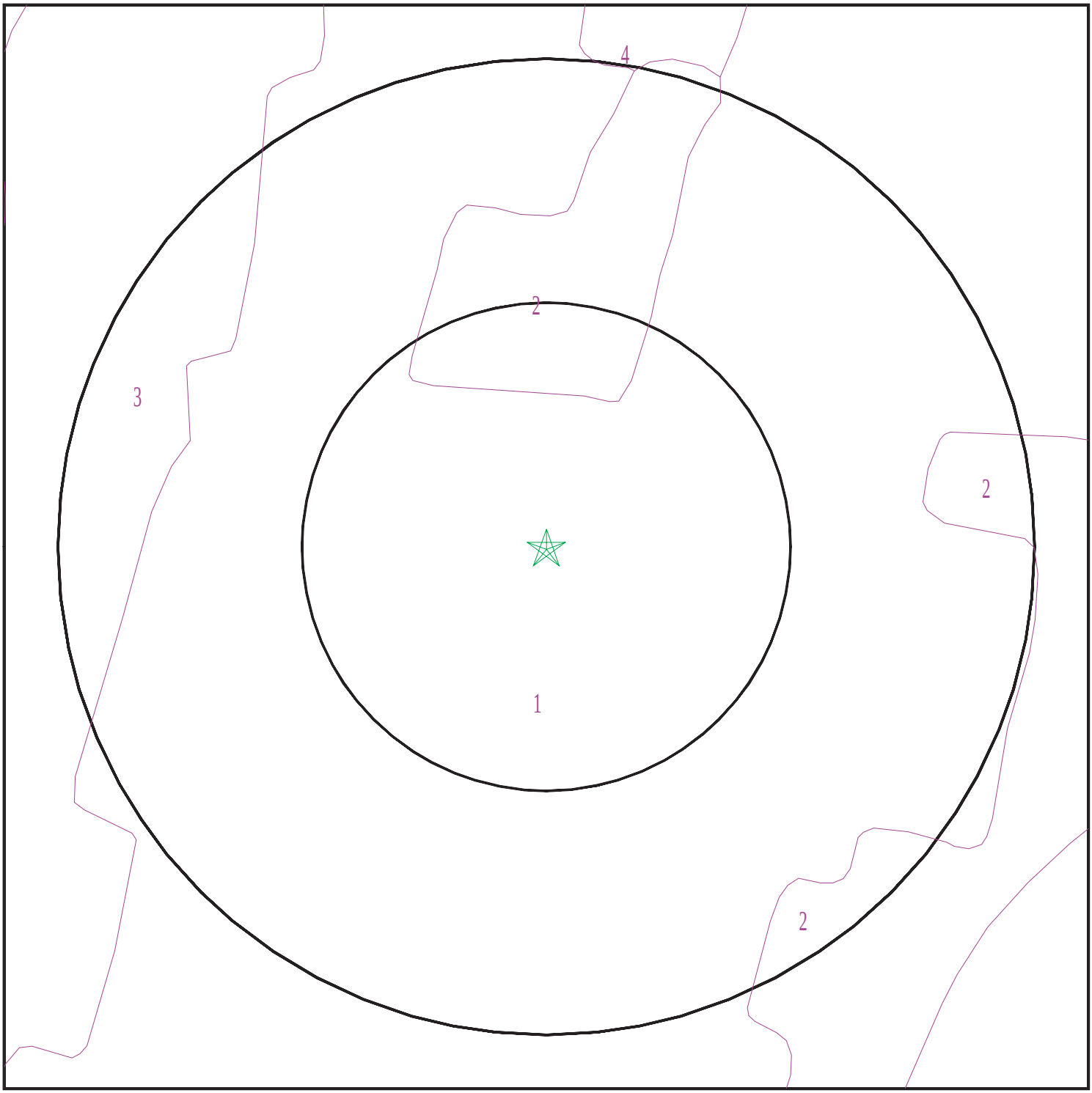
Era:	Paleozoic
System:	Devonian
Series:	Middle Devonian
Code:	D2 *(decoded above as Era, System & Series)*

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 - 5223889.2s



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	8 St. Louis Pl.	CLIENT:	TurnKey Environmental Restoration, LLC.
ADDRESS:	8 St. Louis Pl. Buffalo NY 14202	CONTACT:	Chad Schuster
LAT/LONG:	42.896236 / 78.872419	INQUIRY #:	5223889.2s
		DATE:	March 19, 2018 1:18 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: Urban land

Soil Surface Texture:
Hydrologic Group: Not reported

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: 2

Soil Component Name: Urban

Soil Surface Texture:
Hydrologic Group: Not reported

Soil Drainage Class:
Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 54 inches

No Layer Information available.

Soil Map ID: 3

Soil Component Name: Urban

Soil Surface Texture:
Hydrologic Group: Not reported

Soil Drainage Class:

Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 54 inches

No Layer Information available.

Soil Map ID: 4

Soil Component Name: Urban

Soil Surface Texture:
Hydrologic Group: Not reported

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.

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
1	USGS40000864797	0 - 1/8 Mile East
2	USGS40000864850	1/8 - 1/4 Mile NNE
4	USGS40000864697	1/4 - 1/2 Mile South
A6	USGS40000864917	1/4 - 1/2 Mile NNE
7	USGS40000864696	1/4 - 1/2 Mile SE
8	USGS40000864739	1/2 - 1 Mile ESE
9	USGS40000864584	1/2 - 1 Mile South
10	USGS40000865009	1/2 - 1 Mile NNE
12	USGS40000864508	1/2 - 1 Mile South
15	USGS40000864643	1/2 - 1 Mile WSW
17	USGS40000864489	1/2 - 1 Mile SSW
18	USGS40000864439	1/2 - 1 Mile South
19	USGS40000865141	1/2 - 1 Mile NNE
20	USGS40000864447	1/2 - 1 Mile SSW
21	USGS40000864431	1/2 - 1 Mile SSW
23	USGS40000864835	1/2 - 1 Mile East

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

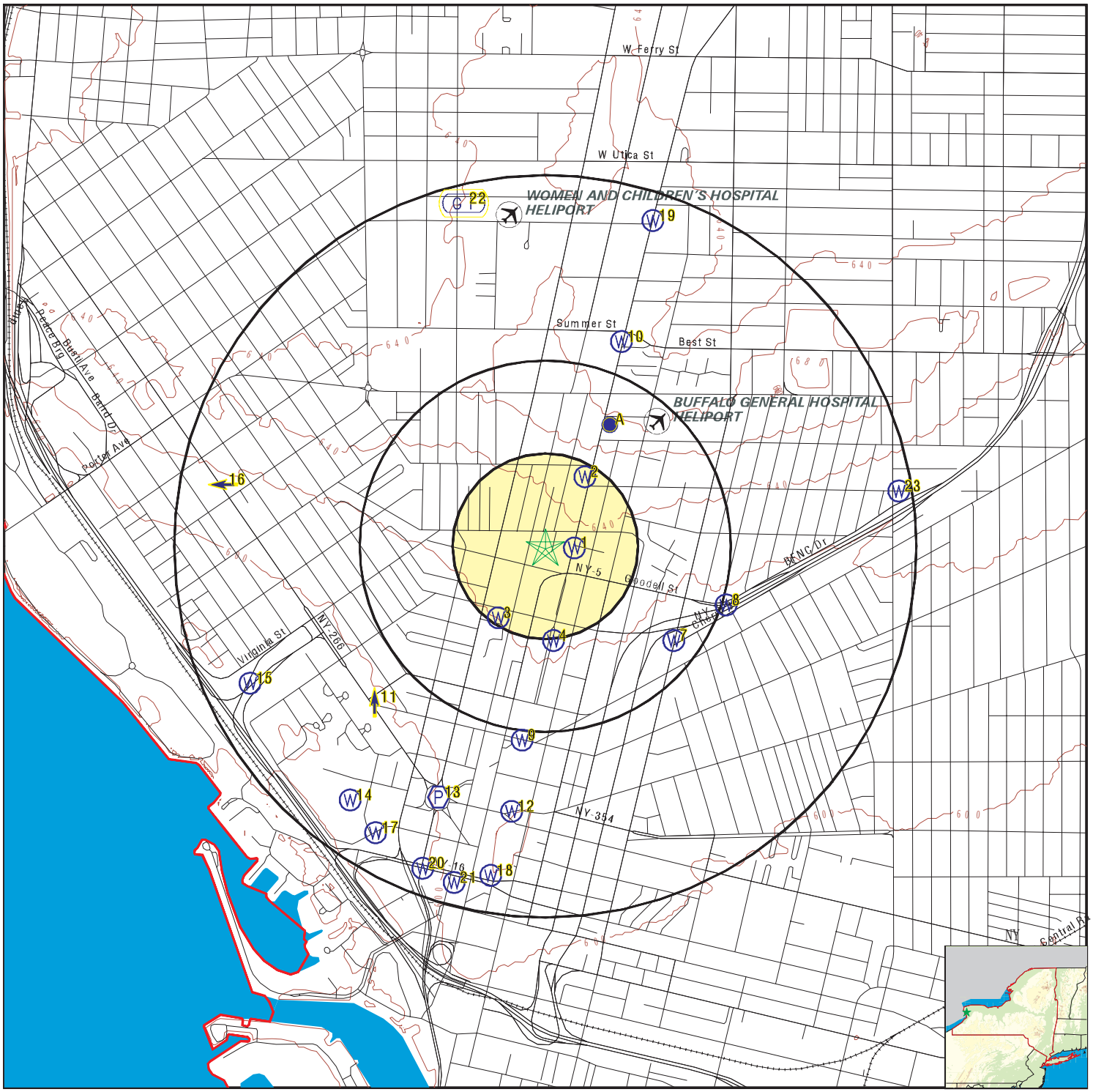
MAP ID	WELL ID	LOCATION FROM TP
13	NY0018673	1/2 - 1 Mile SSW

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
3	NYWS10000004534	1/8 - 1/4 Mile SSW
14	NYWS10000004535	1/2 - 1 Mile SW

PHYSICAL SETTING SOURCE MAP - 5223889.2s



- County Boundary
- Major Roads
- Contour Lines
- Airports
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME:	8 St. Louis Pl.	CLIENT:	TurnKey Environmental Restoration, LLC.
ADDRESS:	8 St. Louis Pl. Buffalo NY 14202	CONTACT:	Chad Schuster
		INQUIRY #:	5223889.2s
LAT/LONG:	42.896236 / 78.872419	DATE:	March 19, 2018 1:18 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

1
East
0 - 1/8 Mile
Higher

FED USGS **USGS40000864797**

Org. Identifier:	USGS-NY		
Formal name:	USGS New York Water Science Center		
Monloc Identifier:	USGS-425346078521601		
Monloc name:	E 298		
Monloc type:	Well		
Monloc desc:	Niagara Project: BNE-114		
Huc code:	Not Reported	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.896169
Longitude:	-78.8708688	Sourcemap scale:	24000
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	636
Vert measure units:	feet	Vertacc measure val:	5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

2
NNE
1/8 - 1/4 Mile
Higher

FED USGS **USGS40000864850**

Org. Identifier:	USGS-NY		
Formal name:	USGS New York Water Science Center		
Monloc Identifier:	USGS-425356078521401		
Monloc name:	E 300		
Monloc type:	Well		
Monloc desc:	Niagara Project: BNE-113		
Huc code:	Not Reported	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.8989467
Longitude:	-78.8703132	Sourcemap scale:	24000
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	651
Vert measure units:	feet	Vertacc measure val:	5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		

Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

3
SSW **NY WELLS** **NYWS10000004534**
1/8 - 1/4 Mile
Lower

Fid:	4534
County:	ERIE
Town:	Buffalo
Dec well n:	E2343
Foil loc:	DELAWARE AVE
Latitude:	42 53 36.4
Longitude:	78 52 29.7
Well depth:	305
Rock depth:	52
Gw depth:	20
Cased dept:	0
Scr:	N
Yt avgdisc:	200
Regnumber:	NYRD10084
Ddlat:	42.893444
Ddlong:	-78.874917
Site id:	NYWS10000004534

4
South **FED USGS** **USGS40000864697**
1/4 - 1/2 Mile
Lower

Org. Identifier:	USGS-NY		
Formal name:	USGS New York Water Science Center		
Monloc Identifier:	USGS-425333078522001		
Monloc name:	E 289		
Monloc type:	Well: Test hole not completed as a well		
Monloc desc:	Niagara Project: BNE-115		
Huc code:	Not Reported	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.8925579
Longitude:	-78.8719799	Sourcemap scale:	24000
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	621
Vert measure units:	feet	Vertacc measure val:	5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		

Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

A5
NNE
1/4 - 1/2 Mile
Higher

Site ID:	8806781	**AQUIFLOW**	**43934**
Groundwater Flow:	Not Reported		
Shallowest Water Table Depth:	20.99		
Deepest Water Table Depth:	29.61		
Average Water Table Depth:	Not Reported		
Date:	11/01/1988		

A6
NNE
1/4 - 1/2 Mile
Higher

FED USGS **USGS40000864917**

Org. Identifier:	USGS-NY		
Formal name:	USGS New York Water Science Center		
Monloc Identifier:	USGS-425405078521001		
Monloc name:	E 307		
Monloc type:	Well		
Monloc desc:	Niagara Project: BNE-112		
Huc code:	Not Reported	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.9014467
Longitude:	-78.8692021	Sourcemap scale:	24000
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	663
Vert measure units:	feet	Vertacc measure val:	5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

7
SE
1/4 - 1/2 Mile
Lower

FED USGS **USGS40000864696**

Org. Identifier:	USGS-NY		
Formal name:	USGS New York Water Science Center		
Monloc Identifier:	USGS-425333078515701		
Monloc name:	E 288		
Monloc type:	Well: Test hole not completed as a well		
Monloc desc:	Niagara Project: BNE-58		
Huc code:	Not Reported	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.8925579
Longitude:	-78.8655907	Sourcemap scale:	24000

Horiz Acc measure:	10	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	615
Vert measure units:	feet	Vertacc measure val:	5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

8
ESE **FED USGS** **USGS40000864739**
1/2 - 1 Mile
Lower

Org. Identifier:	USGS-NY		
Formal name:	USGS New York Water Science Center		
Monloc Identifier:	USGS-425338078514701		
Monloc name:	E 292		
Monloc type:	Well: Test hole not completed as a well		
Monloc desc:	Niagara Project: BNE-57		
Huc code:	Not Reported	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.8939468
Longitude:	-78.8628129	Sourcemap scale:	24000
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	620
Vert measure units:	feet	Vertacc measure val:	5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

9
South **FED USGS** **USGS40000864584**
1/2 - 1 Mile
Lower

Org. Identifier:	USGS-NY		
Formal name:	USGS New York Water Science Center		
Monloc Identifier:	USGS-425319078522601		
Monloc name:	E 282		
Monloc type:	Well: Test hole not completed as a well		
Monloc desc:	Niagara Project: BNE-116		
Huc code:	Not Reported	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.888669
Longitude:	-78.8736465	Sourcemap scale:	24000

Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	616
Vert measure units:	feet	Vertacc measure val:	5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

10
NNE
1/2 - 1 Mile
Higher

FED USGS **USGS40000865009**

Org. Identifier:	USGS-NY		
Formal name:	USGS New York Water Science Center		
Monloc Identifier:	USGS-425415078520701		
Monloc name:	E 313		
Monloc type:	Well: Test hole not completed as a well		
Monloc desc:	Niagara Project: BNE-111		
Huc code:	Not Reported	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.9042245
Longitude:	-78.8683687	Sourcemap scale:	24000
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	652
Vert measure units:	feet	Vertacc measure val:	5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

11
SW
1/2 - 1 Mile
Lower

AQUIFLOW **60515**

Site ID:	9402191
Groundwater Flow:	N
Shallowest Water Table Depth:	94.4
Deepest Water Table Depth:	95.14
Average Water Table Depth:	Not Reported
Date:	09/1996

12
South
1/2 - 1 Mile
Lower

FED USGS **USGS40000864508**

Org. Identifier:	USGS-NY		
Formal name:	USGS New York Water Science Center		
Monloc Identifier:	USGS-425309078522801		
Monloc name:	E 280		
Monloc type:	Well: Test hole not completed as a well		
Monloc desc:	Niagara Project: BNE-117		
Huc code:	Not Reported	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.8858913
Longitude:	-78.8742021	Sourcemap scale:	24000
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	619
Vert measure units:	feet	Vertacc measure val:	5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

13
SSW
1/2 - 1 Mile
Lower

FRDS PWS **NY0018673**

PWS ID:	NY0018673		
Date Initiated:	Not Reported	Date Deactivated:	Not Reported
PWS Name:	PRYME TIME RESTAURANT CHAFFEE, NY 14030		
Addressee / Facility:	System Owner/Responsible Party CARMODY JAMES T PIONEER TRI COUNTY ENT LTD 123 MICHIGAN AVE BUFFALO, NY 14204		
Facility Latitude:	42 53 11	Facility Longitude:	078 52 42
City Served:	SARDINIA (T)		
Treatment Class	Not Reported	Population:	Not Reported

Violations information not reported.

14
SW
1/2 - 1 Mile
Lower

NY WELLS **NYWS10000004535**

Fid:	4535
County:	ERIE
Town:	Buffalo
Dec well n:	E2563
Foil loc:	FOURTH ST
Latitude:	42 53 10.8
Longitude:	78 52 58.0
Well depth:	19
Rock depth:	-999
Gw depth:	7
Cased dept:	Not Reported
Scr:	Y
Yt avgdisc:	Not Reported
Regnumber:	NYRD10435
Ddlat:	42.886333
Ddlong:	-78.882778
Site id:	NYWS10000004535

15
WSW
1/2 - 1 Mile
Lower

FED USGS **USGS40000864643**

Org. Identifier:	USGS-NY		
Formal name:	USGS New York Water Science Center		
Monloc Identifier:	USGS-425327078531801		
Monloc name:	E 285		
Monloc type:	Well: Test hole not completed as a well		
Monloc desc:	Niagara Project: BNW-6		
Huc code:	Not Reported	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.8908912
Longitude:	-78.8880915	Sourcemap scale:	24000
Horiz Acc measure:	10	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	595
Vert measure units:	feet	Vertacc measure val:	10
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

16
West
1/2 - 1 Mile
Lower

AQUIFLOW **60521**

Site ID:	9402249
Groundwater Flow:	W
Shallowest Water Table Depth:	Not Reported
Deepest Water Table Depth:	6.1
Average Water Table Depth:	Not Reported
Date:	04/01/1994

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

17
SSW
1/2 - 1 Mile
Lower

FED USGS **USGS40000864489**

Org. Identifier:	USGS-NY		
Formal name:	USGS New York Water Science Center		
Monloc Identifier:	USGS-425306078525401		
Monloc name:	E 278		
Monloc type:	Well: Test hole not completed as a well		
Monloc desc:	Niagara Project: BNW-5		
Huc code:	Not Reported	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.8850579
Longitude:	-78.8814246	Sourcemap scale:	24000
Horiz Acc measure:	10	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	585
Vert measure units:	feet	Vertacc measure val:	10
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

18
South
1/2 - 1 Mile
Lower

FED USGS **USGS40000864439**

Org. Identifier:	USGS-NY		
Formal name:	USGS New York Water Science Center		
Monloc Identifier:	USGS-425300078523201		
Monloc name:	E 272		
Monloc type:	Well: Test hole not completed as a well		
Monloc desc:	Niagara Project: BNW-3		
Huc code:	Not Reported	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.8833913
Longitude:	-78.8753132	Sourcemap scale:	24000
Horiz Acc measure:	10	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	618
Vert measure units:	feet	Vertacc measure val:	10
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		

Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

19
NNE **FED USGS** **USGS40000865141**
1/2 - 1 Mile
Higher

Org. Identifier:	USGS-NY		
Formal name:	USGS New York Water Science Center		
Monloc Identifier:	USGS-425432078520101		
Monloc name:	E 325		
Monloc type:	Well: Test hole not completed as a well		
Monloc desc:	Niagara Project: BNE-110		
Huc code:	Not Reported	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.9089467
Longitude:	-78.866702	Sourcemap scale:	24000
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	655
Vert measure units:	feet	Vertacc measure val:	5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

20
SSW **FED USGS** **USGS40000864447**
1/2 - 1 Mile
Lower

Org. Identifier:	USGS-NY		
Formal name:	USGS New York Water Science Center		
Monloc Identifier:	USGS-425301078524501		
Monloc name:	E 274		
Monloc type:	Well: Test hole not completed as a well		
Monloc desc:	Niagara Project: BNW-4		
Huc code:	Not Reported	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.883669
Longitude:	-78.8789245	Sourcemap scale:	24000
Horiz Acc measure:	10	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	590
Vert measure units:	feet	Vertacc measure val:	10
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		

Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

21
SSW
1/2 - 1 Mile
Lower

FED USGS **USGS40000864431**

Org. Identifier:	USGS-NY		
Formal name:	USGS New York Water Science Center		
Monloc Identifier:	USGS-425259078523901		
Monloc name:	E 271		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	04120103	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.8831135
Longitude:	-78.8772577	Sourcemap scale:	24000
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	605.00
Vert measure units:	feet	Vertacc measure val:	10
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	New York and New England carbonate-rock aquifers		
Formation type:	Onondaga Limestone		
Aquifer type:	Not Reported		
Construction date:	1955	Welldepth:	80
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1963-03-20	30	

22
NNW
1/2 - 1 Mile
Higher

AQUIFLOW **60523**

Site ID:	9402252
Groundwater Flow:	Not Reported
Shallowest Water Table Depth:	5.12
Deepest Water Table Depth:	6.78
Average Water Table Depth:	Not Reported
Date:	01/09/1996

23
East
1/2 - 1 Mile
Lower

FED USGS **USGS40000864835**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Org. Identifier:	USGS-NY		
Formal name:	USGS New York Water Science Center		
Monloc Identifier:	USGS-425354078511401		
Monloc name:	E 299		
Monloc type:	Well: Test hole not completed as a well		
Monloc desc:	Niagara Project: BNE-56		
Huc code:	Not Reported	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	42.8983913
Longitude:	-78.8536459	Sourcemap scale:	24000
Horiz Acc measure:	10	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	630
Vert measure units:	feet	Vertacc measure val:	5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

1G
NNW
1/2 - 1 Mile
Lower

Site ID:	9402252
Groundwater Flow:	Not Reported
Shallowest Water Table Depth:	5.12
Deepest Water Table Depth:	6.78
Average Water Table Depth:	Not Reported
Date:	01/09/1996

AQUIFLOW **60523**

2G
NNE
1/4 - 1/2 Mile
Lower

Site ID:	8806781
Groundwater Flow:	Not Reported
Shallowest Water Table Depth:	20.99
Deepest Water Table Depth:	29.61
Average Water Table Depth:	Not Reported
Date:	11/01/1988

AQUIFLOW **43934**

3G
West
1/2 - 1 Mile
Lower

Site ID:	9402249
Groundwater Flow:	W
Shallowest Water Table Depth:	Not Reported
Deepest Water Table Depth:	6.1
Average Water Table Depth:	Not Reported
Date:	04/01/1994

AQUIFLOW **60521**

4G
SW
1/2 - 1 Mile
Lower

Site ID:	9402191
Groundwater Flow:	N
Shallowest Water Table Depth:	94.4
Deepest Water Table Depth:	95.14
Average Water Table Depth:	Not Reported
Date:	09/1996

AQUIFLOW **60515**

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	123	5.69	1.93	185.3
ERIE	AMHERST	864	2.57	1.15	115.6
ERIE	AURORA	436	10.94	4.46	215.6
ERIE	BOSTON	101	9.51	4.47	49.9
ERIE	BRANT	9	12.9	4.13	78.7
ERIE	BUFFALO	936	1.18	0.62	63.2
ERIE	CHEEKTOWAGA	444	1.03	0.71	30.8
ERIE	CLARENCE	244	6.79	2.37	207.8
ERIE	COLDEN	45	5.4	3.44	38
ERIE	COLLINS	48	11.83	4.76	115.1
ERIE	CONCORD	180	15.75	7.87	163
ERIE	EDEN	163	6.74	3.33	206.7
ERIE	ELMA	282	8.17	3.15	213.6
ERIE	EVANS	121	5.77	2.92	92.3
ERIE	GRAND ISLAND	85	1.41	1.03	7.5
ERIE	HAMBURG	753	4.9	2.2	136.8
ERIE	HOLLAND	55	8.09	3.57	122.9
ERIE	KENMORE	146	0.75	0.56	4.8
ERIE	LACKAWANNA	42	1.45	0.83	11.4
ERIE	LANCASTER	177	2.76	1.17	155.1
ERIE	MARILLA	239	28.88	9.31	371.9
ERIE	NEWSTEAD	88	3.44	2.35	18
ERIE	NO. COLLINS	28	7.97	3.88	75.6
ERIE	ORCHARD PARK	490	4.8	2.37	116.9
ERIE	SARDINIA	25	22.28	8.33	121.2
ERIE	TONAWANDA	392	1.04	0.72	18.9
ERIE	W. SENECA	266	2.51	1.35	55.8
ERIE	WALES	44	11.97	4.35	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.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State 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 Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

New York Public Water Wells
Source: New York Department of Health
Telephone: 518-458-6731

OTHER STATE DATABASE INFORMATION

Oil and Gas Well Database
Department of Environmental Conservation
Telephone: 518-402-8072
These files contain records, in the database, of wells that have been drilled.

RADON

State Database: NY Radon
Source: Department of Health
Telephone: 518-402-7556
Radon Test Results

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

PHYSICAL SETTING SOURCE RECORDS SEARCHED

STREET AND ADDRESS INFORMATION

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APPENDIX B

ENVIRONMENTAL/GOVERNMENT AGENCY INFORMATION

Bryan W. Mayback

From: New York DEC Support <newyorkdec@mycusthelp.net>
Sent: Friday, March 30, 2018 1:56 PM
To: Chad Schuster
Subject: Freedom of Information Law Request :: W033686-031618

--- Please respond above this line ---

Region 9 - Buffalo
P: 716 851-7220 | F:
www.dec.ny.gov

RE: PUBLIC RECORDS REQUEST of 3/16/2018, Reference # W033686-031618

Dear Chad,

There is currently no NYSDEC-regulated freshwater wetland within or adjacent to the 8 St. Louis Place, Buffalo, NY 14202 parcel. Therefore, the Region 9 Bureau of Wildlife has no freshwater wetland files or records for the property. We recommend contacting the U.S. Army Corps of Engineers at 716-879-4330 regarding the potential for federally-regulated wetlands.

Sincerely,
Region 9 FOIL Coordinator

APPENDIX C

HISTORIC SANBORN MAPS

8 St. Louis Pl.

8 St. Louis Pl.

Buffalo, NY 14202

Inquiry Number: 5223889.3

March 19, 2018

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

03/19/18

Site Name:

8 St. Louis Pl.
8 St. Louis Pl.
Buffalo, NY 14202
EDR Inquiry # 5223889.3

Client Name:

TurnKey Environmental Restoration, LLC.
2558 Hamburg Turnpike Suite 300
Buffalo, NY 14218
Contact: Chad Schuster

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by TurnKey Environmental Restoration, LLC. were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # E866-4D50-BEFB

PO # NA

Project 8 St. Louis Pl.

Maps Provided:

1986
1981
1951
1925
1899
1889

Sanborn® Library search results

Certification #: E866-4D50-BEFB

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

The Sanborn Library LLC Since 1866™

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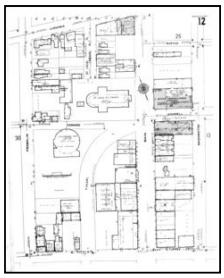
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Sanborn Sheet Key

This Certified Sanborn Map Report is based upon the following Sanborn Fire Insurance map sheets.

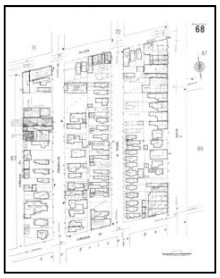
1986 Source Sheets



Volume 1, Sheet 12
1986



Volume 1, Sheet 30
1986

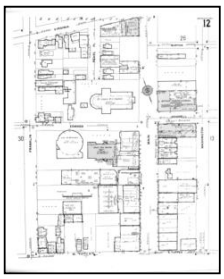


Volume 1A, Sheet 68
1986

1981 Source Sheets



Volume 1A, Sheet 68
1981

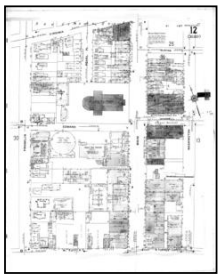


Volume 1, Sheet 12
1981



Volume 1, Sheet 30
1981

1951 Source Sheets



Volume 1, Sheet 12
1951



Volume 1, Sheet 30
1951



Volume 1A, Sheet 68
1951

1925 Source Sheets



Volume 1A, Sheet 68
1925



Volume 1, Sheet 12
1925



Volume 1, Sheet 30
1925

Sanborn Sheet Key

This Certified Sanborn Map Report is based upon the following Sanborn Fire Insurance map sheets.

1899 Source Sheets



Volume 1, Sheet 30
1899



Volume 1, Sheet 44
1899

1889 Source Sheets



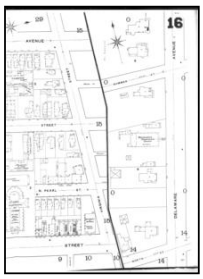
Volume 1, Sheet 15
1889



Volume 1, Sheet 15
1889



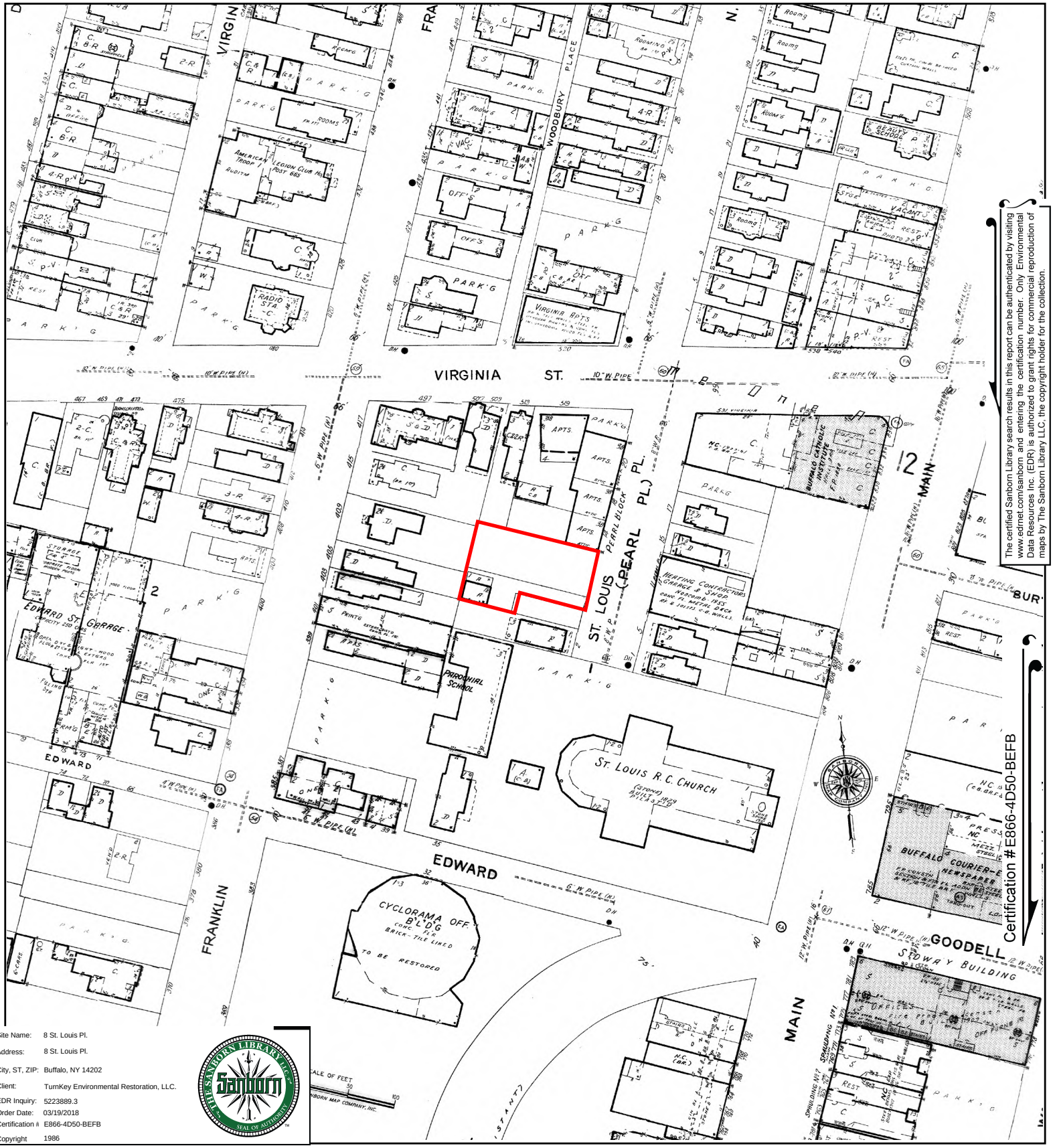
Volume 1, Sheet 16
1889



Volume 1, Sheet 16
1889

Certified Sanborn® Map

1986



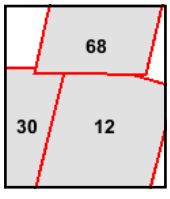
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Certification #E866-4D50-BEFB

Site Name:	8 St. Louis Pl.
Address:	8 St. Louis Pl.
City, ST, ZIP:	Buffalo, NY 14202
Client:	TurnKey Environmental Restoration, LLC.
EDR Inquiry:	5223889.3
Order Date:	03/19/2018
Certification #:	E866-4D50-BEFB
Copyright	1986

This Certified Sanborn Map combines the following sheets.
Outlined areas indicate map sheets within the collection.

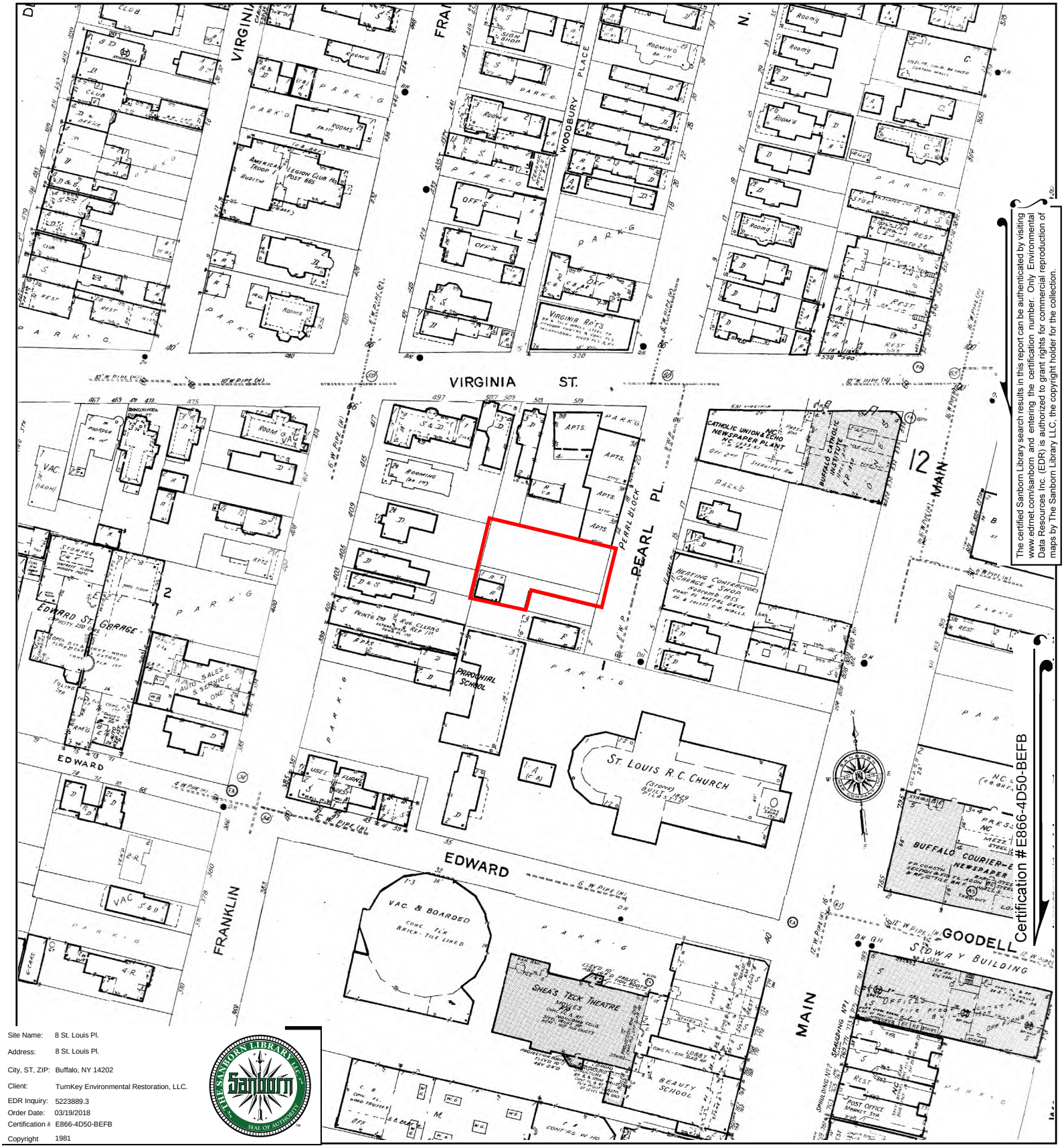




Volume 1A, Sheet 68
Volume 1, Sheet 30
Volume 1, Sheet 12

0 Feet 150 300 600

N

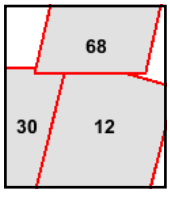


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EDR Inquiry:	5223889.3
Order Date:	03/19/2018
Certification #:	E866-4D50-BEFB
Copyright	1981

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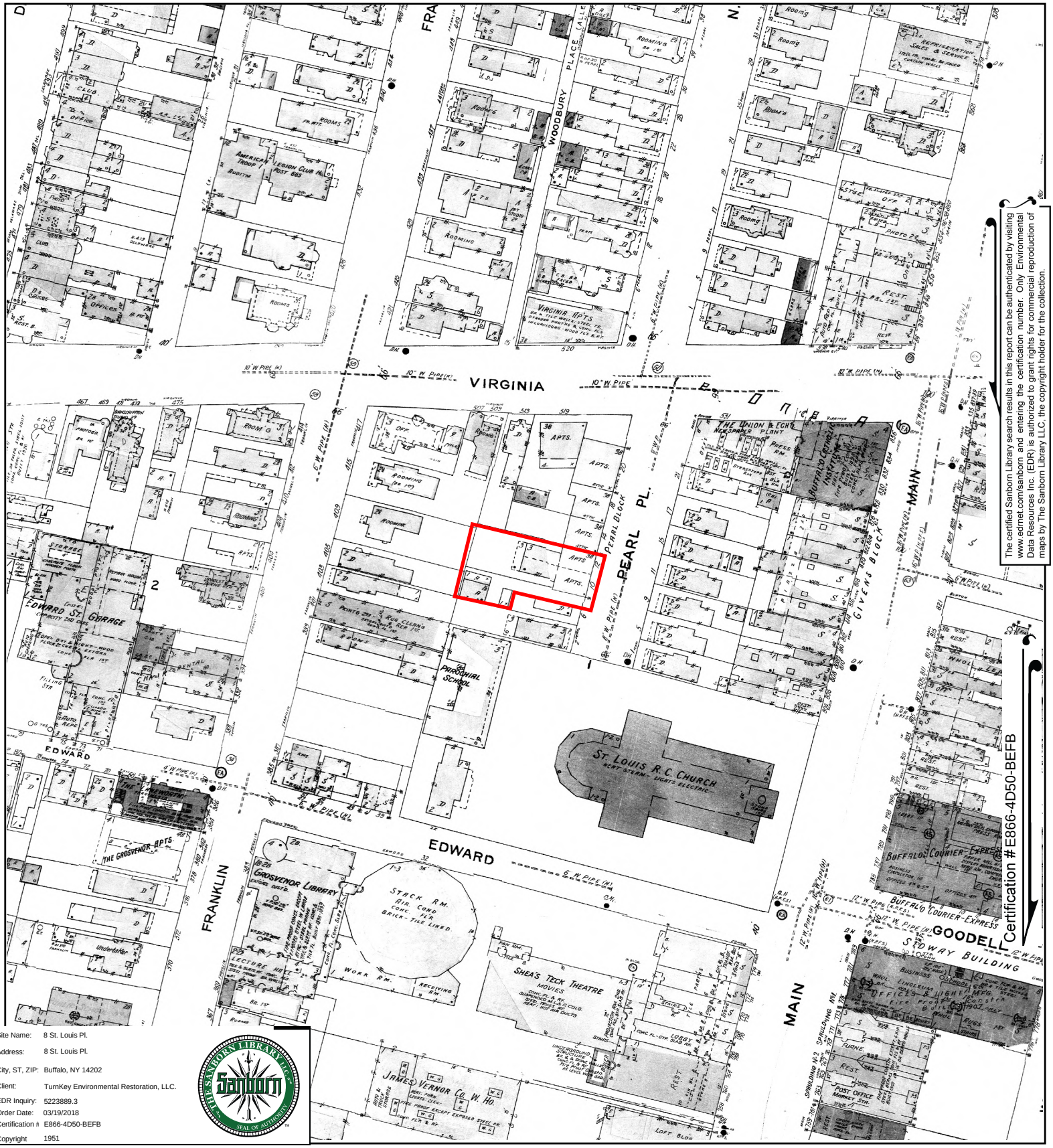
Volume 1, Sheet 30
Volume 1, Sheet 12
Volume 1A, Sheet 68

0 Feet 150 300 600

N

Certified Sanborn® Map

1951

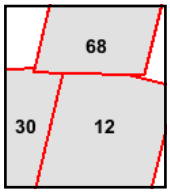


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Site Name:	8 St. Louis Pl.
Address:	8 St. Louis Pl.
City, ST, ZIP:	Buffalo, NY 14202
Client:	TurnKey Environmental Restoration, LLC.
EDR Inquiry:	5223889.3
Order Date:	03/19/2018
Certification #:	E866-4D50-BEFB
Copyright	1951

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Outlined areas indicate map sheets within the collection.





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Volume 1, Sheet 30
Volume 1, Sheet 12

0 Feet 150 300 600

N

Certified Sanborn® Map

1925



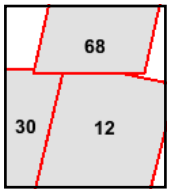
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Site Name:	8 St. Louis Pl.
Address:	8 St. Louis Pl.
City, ST, ZIP:	Buffalo, NY 14202
Client:	TurnKey Environmental Restoration, LLC.
EDR Inquiry:	5223889.3
Order Date:	03/19/2018
Certification #:	E866-4D50-BEFB
Copyright	1925

This Certified Sanborn Map combines the following sheets.
Outlined areas indicate map sheets within the collection.

0 Feet 150 300 600





Volume 1, Sheet 30
Volume 1, Sheet 12
Volume 1A, Sheet 68

N

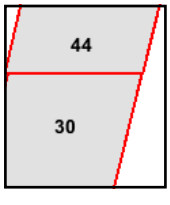


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Site Name:	8 St. Louis Pl.
Address:	8 St. Louis Pl.
City, ST, ZIP:	Buffalo, NY 14202
Client:	TurnKey Environmental Restoration, LLC.
EDR Inquiry:	5223889.3
Order Date:	03/19/2018
Certification #:	E866-4D50-BEFB
Copyright	1899

This Certified Sanborn Map combines the following sheets.
Outlined areas indicate map sheets within the collection.

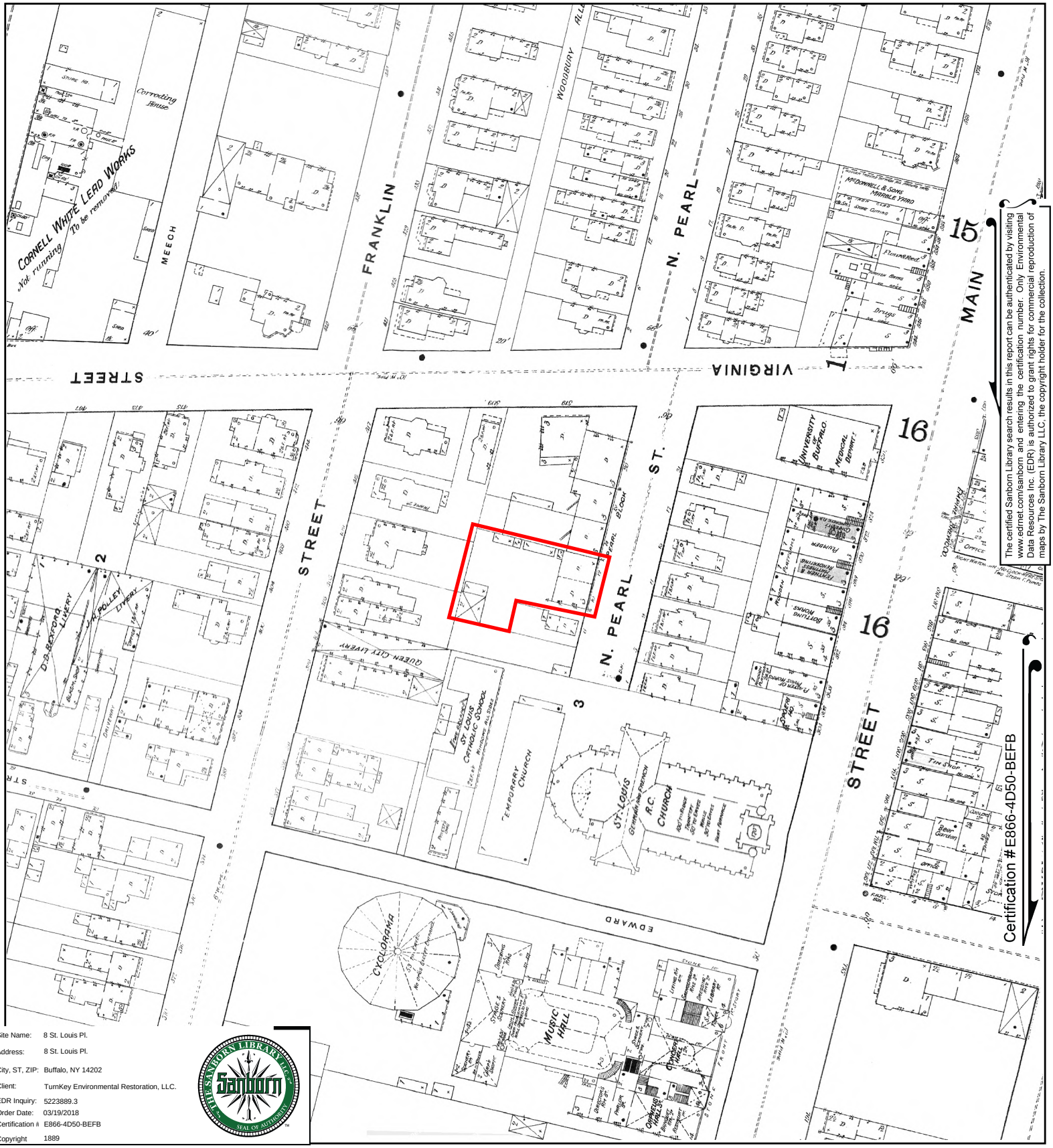




Volume 1, Sheet 44
Volume 1, Sheet 30

0 Feet 150 300 600

N

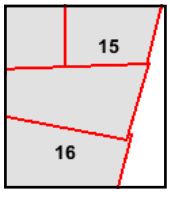


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Site Name:	8 St. Louis Pl.
Address:	8 St. Louis Pl.
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Client:	TurnKey Environmental Restoration, LLC.
EDR Inquiry:	5223889.3
Order Date:	03/19/2018
Certification #	E866-4D50-BEFB
Copyright	1889

This Certified Sanborn Map combines the following sheets.
Outlined areas indicate map sheets within the collection.





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Volume 1, Sheet 16
Volume 1, Sheet 15
Volume 1, Sheet 15

0 Feet 150 300 600

N

APPENDIX D

HISTORIC CITY DIRECTORIES

8 St. Louis Pl.
8 St. Louis Pl.
Buffalo, NY 14202

Inquiry Number: 5223889.5
March 19, 2018

The EDR-City Directory Abstract

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

Executive Summary

Findings

City Directory Images

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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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 2014. 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.

RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

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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
2014	EDR Digital Archive	-	X	X	-
2010	EDR Digital Archive	-	X	X	-
2008	Polk City Directories	-	X	X	X
	Polk City Directories	X	X	X	X
2001	EQUIFAX Polk City Directory	-	X	X	X
1998	The Polk Company,City Directory Division	-	X	X	X
1996	R.L. Polk Company	-	-	-	-
1992	R. L. Polk Co., Publishers	-	X	X	X
1985	R. L. Polk Co., Publishers	-	X	X	X
1980	R. L. Polk Co., Publishers	-	X	X	X
1975	R. L. Polk Co.	-	X	X	X

EXECUTIVE SUMMARY

Year	Source	TP	Adjoining	Text Abstract	Source Image
1970	R.L. Polk Company, Inc., Publishers	-	X	X	X
	R.L. Polk Company, Inc., Publishers	X	X	X	X
1964	R. L. Polk Co., Inc., Publishers	-	X	X	X
	R. L. Polk Co., Inc., Publishers	X	X	X	X
1960	Polk-Clement Directory Co. Inc.,	-	X	X	X
	Polk-Clement Directory Co. Inc.,	X	X	X	X
1955	Polk-Clement Directory Co. Inc.,	-	X	X	X
	Polk-Clement Directory Co. Inc.,	X	X	X	X
1950	Polk-Clement Directory Co. Inc.,	-	X	X	X
	Polk-Clement Directory Co. Inc.,	X	X	X	X
1946	Polk-Clement Directory Co. Inc.,	-	X	X	X
	Polk-Clement Directory Co. Inc.,	X	X	X	X
1940	Polk-Clement Directory Co. Inc.,	-	X	X	X
	Polk-Clement Directory Co. Inc.,	X	X	X	X
1935	Polk-Clement Directory Co. Inc.	-	X	X	X
	Polk-Clement Directory Co. Inc.	X	X	X	X
1930	Polk-Clement Directory Co. Inc.,	-	X	X	X
	Polk-Clement Directory Co. Inc.,	X	X	X	X
1925	Polk-Clement Directory Co., Publishers	-	X	X	X
	Polk-Clement Directory Co., Publishers	X	X	X	X

EXECUTIVE SUMMARY

SELECTED ADDRESSES

The following addresses were selected by the client, for EDR to research. An "X" indicates where information was identified.

Address	*Type*	*Findings*
10 St. Louis Place	Client Entered	
12 St. Louis Place	Client Entered	
10 North Pearl	Client Entered	
12 North Pearl	Client Entered	X
6 North Pearl	Client Entered	X
14 North Pearl	Client Entered	X
9 North Pearl	Client Entered	X
11 North Pearl	Client Entered	
10 Pearl Pl	Client Entered	
12 Pearl Pl	Client Entered	X

FINDINGS

TARGET PROPERTY INFORMATION

ADDRESS

8 St. Louis Pl.
Buffalo, NY 14202

FINDINGS DETAIL

Target Property research detail.

N PEARL ST

12 N PEARL ST

Year	Uses	Source	
1925	Barker Byron W service eng Riley Stoker Corp h	Polk-Clement Directory Co., Publishers	Image pg. A211
	SCHWARTZ Carl A ins r	Polk-Clement Directory Co., Publishers	Image pg. A212
	SCHWARTZ Eliz M r	Polk-Clement Directory Co., Publishers	Image pg. A212
	SCHWARTZ John L h	Polk-Clement Directory Co., Publishers	Image pg. A213

North Pearl

10 North Pearl

Year	Uses	Source

12 North Pearl

Year	Uses	Source	
1960	Sehwartz Karl A	Polk-Clement Directory Co. Inc.,	Image pg. A117
1955	Schwartz Eliz J Mrs	Polk-Clement Directory Co. Inc.,	Image pg. A130
1950	Schwartz Eliz J Mrs	Polk-Clement Directory Co. Inc.,	Image pg. A142
1946	Schwartz Eliz J Mrs	Polk-Clement Directory Co. Inc.,	Image pg. A153
1940	Schwartz Eliz J Mrs	Polk-Clement Directory Co. Inc.,	Image pg. A163
1935	Schwartz Eliz J Mrs	Polk-Clement Directory Co. Inc.	Image pg. A175
1930	Schwartz Eliz J Mrs	Polk-Clement Directory Co. Inc.,	Image pg. A184
1925	Barker Byron W service eng Riley Stoker Corp h	Polk-Clement Directory Co., Publishers	Image pg. A214
	SCHWARTZ Carl A ins r	Polk-Clement Directory Co., Publishers	Image pg. A215
	SCHWARTZ Eliz M r	Polk-Clement Directory Co., Publishers	Image pg. A215
	SCHWARTZ John L h	Polk-Clement Directory Co., Publishers	Image pg. A216

FINDINGS

Pearl Pl

10 Pearl Pl

Year	Uses	Source	

12 Pearl Pl

Year	Uses	Source	
1960	Sehwartz Karl A	Polk-Clement Directory Co. Inc.,	Image pg. A117
1955	Schwartz Eliz J Mrs	Polk-Clement Directory Co. Inc.,	Image pg. A130
1950	Schwartz Eliz J Mrs	Polk-Clement Directory Co. Inc.,	Image pg. A142
1946	Schwartz Eliz J Mrs	Polk-Clement Directory Co. Inc.,	Image pg. A153
1940	Schwartz Eliz J Mrs	Polk-Clement Directory Co. Inc.,	Image pg. A163
1935	Schwartz Eliz J Mrs	Polk-Clement Directory Co. Inc.	Image pg. A175
1930	Schwartz Eliz J Mrs	Polk-Clement Directory Co. Inc.,	Image pg. A184
1925	Barker Byron W service eng Riley Stoker Corp h	Polk-Clement Directory Co., Publishers	Image pg. A217
	SCHWARTZ Carl A ins r	Polk-Clement Directory Co., Publishers	Image pg. A218
	SCHWARTZ Eliz M r	Polk-Clement Directory Co., Publishers	Image pg. A218
	SCHWARTZ John L h	Polk-Clement Directory Co., Publishers	Image pg. A219

PEARL ST N

12 PEARL ST N

Year	Uses	Source	
1960	Sehwartz Karl A	Polk-Clement Directory Co. Inc.,	Image pg. A117
1955	Schwartz Eliz J Mrs	Polk-Clement Directory Co. Inc.,	Image pg. A130
1950	Schwartz Eliz J Mrs	Polk-Clement Directory Co. Inc.,	Image pg. A142
1946	Schwartz Eliz J Mrs	Polk-Clement Directory Co. Inc.,	Image pg. A153
1940	Schwartz Eliz J Mrs	Polk-Clement Directory Co. Inc.,	Image pg. A163
1935	Schwartz Eliz J Mrs	Polk-Clement Directory Co. Inc.	Image pg. A175
1930	Schwartz Eliz J Mrs	Polk-Clement Directory Co. Inc.,	Image pg. A184

ST LOUIS PL

8 ST LOUIS PL

Year	Uses	Source	
2008	Tarajos Stephen J E	Polk City Directories	Image pg. A1

FINDINGS

10 ST LOUIS PL

Year	Uses	Source	
1970	DAPWIN FERN M MRS	R.L. Polk Company, Inc., Publishers	Image pg. A91
	DIEHL ROBT A	R.L. Polk Company, Inc., Publishers	Image pg. A91
	FEDERLE RENEE V MRS	R.L. Polk Company, Inc., Publishers	Image pg. A91
	FOX HARRY A	R.L. Polk Company, Inc., Publishers	Image pg. A91
	GIANCONTIEPI JOSEPH	R.L. Polk Company, Inc., Publishers	Image pg. A91
	ROZMUS ANTHONY F	R.L. Polk Company, Inc., Publishers	Image pg. A91
1964	Federle Renee V Mrs	R. L. Polk Co., Inc., Publishers	Image pg. A102
	Fox Henry A	R. L. Polk Co., Inc., Publishers	Image pg. A102
	Pilot Martin	R. L. Polk Co., Inc., Publishers	Image pg. A102
	Rozmus Anna Mrs	R. L. Polk Co., Inc., Publishers	Image pg. A102
1960	Federle Reene V Mrs	Polk-Clement Directory Co. Inc.,	Image pg. A118
	Fox Henry A	Polk-Clement Directory Co. Inc.,	Image pg. A118
	Hall Mildred	Polk-Clement Directory Co. Inc.,	Image pg. A118
	Kiesl Jos	Polk-Clement Directory Co. Inc.,	Image pg. A118
	Lind Walter	Polk-Clement Directory Co. Inc.,	Image pg. A118
	Rozmus Anthony F	Polk-Clement Directory Co. Inc.,	Image pg. A118
	Williams Clara K Mrs	Polk-Clement Directory Co. Inc.,	Image pg. A118
1955	Dubay Michl	Polk-Clement Directory Co. Inc.,	Image pg. A131
	Federle Renee N Mrs	Polk-Clement Directory Co. Inc.,	Image pg. A131
	Fox Henry A	Polk-Clement Directory Co. Inc.,	Image pg. A131
	Kiesl Jos	Polk-Clement Directory Co. Inc.,	Image pg. A131
	Rozmus Anthony F	Polk-Clement Directory Co. Inc.,	Image pg. A131
	Slate Elma M Mrs	Polk-Clement Directory Co. Inc.,	Image pg. A131
	Williams Clara K Mrs	Polk-Clement Directory Co. Inc.,	Image pg. A131

12 ST LOUIS PL

Year	Uses	Source	
1970	BETROS SADIE A	R.L. Polk Company, Inc., Publishers	Image pg. A91
	DAVE LAWRENCE	R.L. Polk Company, Inc., Publishers	Image pg. A91
	HAPVEY FLORENCE E	R.L. Polk Company, Inc., Publishers	Image pg. A91
	PILOT MARTIN F	R.L. Polk Company, Inc., Publishers	Image pg. A91
	STEVENS JAMES	R.L. Polk Company, Inc., Publishers	Image pg. A91
1964	Betros Sadie A	R. L. Polk Co., Inc., Publishers	Image pg. A102
	Herger Paul int dec	R. L. Polk Co., Inc., Publishers	Image pg. A102
	Pilot Martin	R. L. Polk Co., Inc., Publishers	Image pg. A102
1960	Harvey Florence	Polk-Clement Directory Co. Inc.,	Image pg. A118
	Herger Paul int dec	Polk-Clement Directory Co. Inc.,	Image pg. A118
	Reeb Albert	Polk-Clement Directory Co. Inc.,	Image pg. A118

FINDINGS

Year	Uses	Source	
1960	Tovey Harold E	Polk-Clement Directory Co. Inc.,	Image pg. A118
1955	LaVelle Steph	Polk-Clement Directory Co. Inc.,	Image pg. A131
	Reeb Albert	Polk-Clement Directory Co. Inc.,	Image pg. A131

St. Louis Place

10 St. Louis Place

Year	Uses	Source

12 St. Louis Place

Year	Uses	Source

FINDINGS

Address Researched	Address Not Identified in Research Source
176 BURTON ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975
18 GOODELL ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930
18 N PEARL ST	2014, 2010, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
18 PEARL ST N	2014, 2010, 2008, 2001, 1998, 1996, 1985, 1925
18 Saint Louis Pl	2014, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
18 Saint Louis Pl	2014, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
18 ST LOUIS PL	2014, 2010, 1998, 1996, 1950, 1946, 1940, 1935, 1930, 1925
19 GOODELL ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930
19 N PEARL ST	2014, 2010, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930
19 PEARL ST N	2014, 2010, 2008, 2001, 1998, 1996, 1925
2 ST LOUIS PL	2014, 2010, 1996, 1950, 1946, 1940, 1935, 1930, 1925
2 VIRGINIA PL	2014, 2010, 1996, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
20 GOODELL ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930
20 N PEARL ST	2014, 2010, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930
20 PEARL ST N	2014, 2010, 2008, 2001, 1998, 1996, 1925
20 Saint Louis Pl	2014, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
20 Saint Louis Pl	2014, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
20 ST LOUIS PL	2014, 2010, 1996, 1950, 1946, 1940, 1935, 1930, 1925
21 N PEARL ST	2014, 2010, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930
21 N Pearl St	2014, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
21 N Pearl St	2014, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
21 PEARL ST N	2014, 2010, 2008, 2001, 1998, 1996, 1925
21 ST LOUIS PL	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1950, 1946, 1940, 1935, 1930, 1925
22 N PEARL ST	2014, 2010, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930
22 PEARL ST N	2014, 2010, 2008, 2001, 1998, 1996, 1925
24 VIRGINIA PL	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
25 N PEARL ST	2014, 2010, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930

FINDINGS

Address Researched	Address Not Identified in Research Source
25 PEARL ST N	2014, 2010, 2008, 2001, 1998, 1996, 1925
26 VIRGINIA PL	2014, 2010, 2001, 1998, 1996, 1970, 1964, 1960, 1955, 1950, 1930, 1925
28 GOODELL ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940
28 N PEARL ST	2014, 2010, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930
28 PEARL ST N	2014, 2010, 2008, 2001, 1998, 1996, 1925
28 VIRGINIA PL	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1930, 1925
29 N PEARL ST	2014, 2010, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930
29 PEARL ST N	2014, 2010, 2008, 2001, 1998, 1996, 1925
3 N PEARL ST	2014, 2010, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
30 N PEARL ST	2014, 2010, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930
30 N Pearl St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
30 N Pearl St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
30 PEARL ST N	2014, 2010, 2008, 2001, 1998, 1996, 1925
30 VIRGINIA PL	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1935, 1930, 1925
31 N PEARL ST	2014, 2010, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
32 EDWARD ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1964, 1960, 1955, 1950, 1946, 1940, 1925
32 VIRGINIA PL	2014, 2010, 1998, 1996, 1964, 1960, 1955, 1950, 1946, 1935, 1930, 1925
33 N PEARL ST	2014, 2010, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930
33 PEARL ST N	2014, 2010, 2008, 2001, 1998, 1996, 1925
34 N PEARL ST	2014, 2010, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930
34 PEARL ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1946, 1940, 1935, 1930, 1925
34 PEARL ST N	2014, 2010, 2008, 2001, 1998, 1996, 1925
34 VIRGINIA PL	2014, 2010, 1998, 1996, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1930, 1925
35 EDWARD ST	2014, 2010, 1996
35 Edward St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
35 Edward St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925

FINDINGS

Address Researched	Address Not Identified in Research Source
35 N PEARL ST	2014, 2010, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930
35 PEARL ST N	2014, 2010, 2008, 2001, 1998, 1996, 1975, 1925
361 FRANKLIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1980
364 FRANKLIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1925
365 FRANKLIN	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930
365 FRANKLIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975
366 FRANKLIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
367 FRANKLIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1970, 1964, 1955, 1950, 1946, 1940, 1935, 1930
369 FRANKLIN ST	2014, 2010, 1996, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
369 Franklin St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
369 Franklin St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
370 Franklin St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
370 Franklin St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
370 FRANKLIN ST	2014, 2010, 1996, 1925
372 FRANKLIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1975, 1970
373 FRANKLIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
376 FRANKLIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985
378 FRANKLIN ST	2014, 2010, 2001, 1998, 1996, 1980, 1975, 1970, 1964, 1960, 1955, 1950
38 VIRGINIA PL	2014, 2010, 2008, 2001, 1998, 1996, 1975, 1950, 1946, 1940, 1935, 1930, 1925
380 FRANKLIN ST	2014, 2010, 1998, 1996, 1975, 1940, 1930, 1925
382 FRANKLIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950
383 FRANKLIN ST	2014, 2010, 2008, 2001, 1996, 1992, 1985, 1980, 1975, 1925
385 FRANKLIN ST	2014, 2010, 1996, 1975, 1970
385 Franklin St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
385 Franklin St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
386 FRANKLIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980
387 FRANKLIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992

FINDINGS

Address Researched	Address Not Identified in Research Source
387 Franklin St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
387 Franklin St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
388 Franklin St	2014, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
388 Franklin St	2014, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
388 FRANKLIN ST	2014, 2010, 1996
389 FRANKLIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935
39 EDWARD ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1970, 1964
390 FRANKLIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
391 FRANKLIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930
392 FRANKLIN ST	2014, 2010, 2008, 2001, 1998, 1996
394 FRANKLIN ST	2014, 2010, 1996, 1975, 1970, 1964, 1960
394 Franklin St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
394 Franklin St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
399 FRANKLIN ST	2014, 2010, 2001, 1998, 1996
4 ST LOUIS PL	2014, 2010, 2008, 2001, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
40 EDWARD ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
40 VIRGINIA PL	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1930, 1925
400 FRANKLIN ST	2014, 2010, 2001, 1996, 1992, 1985, 1975, 1970, 1964, 1960
401 FRANKLIN ST	2014, 2010, 1996
401 Franklin St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
401 Franklin St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
402 FRANKLIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1925
403 FRANKLIN ST	2014, 2010, 1996, 1940
404 FRANKLIN ST	2014, 2010, 1996
405 FRANKLIN ST	2014, 2010, 1998, 1996, 1946
406 FRANKLIN ST	2014, 2010, 1998, 1996, 1992, 1985, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1925
406 Franklin St	2014, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925

FINDINGS

Address Researched	Address Not Identified in Research Source
406 Franklin St	2014, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
407 FRANKLIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1925
408 FRANKLIN ST	2014, 2010, 1996
408 Franklin St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
408 Franklin St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
409 FRANKLIN ST	2014, 2010, 1996
41 EDWARD ST	2014, 2010, 2008, 1996
410 FRANKLIN ST	2014, 2010, 1998, 1996
411 FRANKLIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1925
412 FRANKLIN ST	2014, 2010, 1996
412 Franklin St	2014, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
412 Franklin St	2014, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
414 FRANKLIN ST	2014, 2010, 1998, 1996
415 FRANKLIN ST	2014, 2010, 1998, 1996
415 Franklin St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
415 Franklin St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
417 Franklin St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
417 Franklin St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
417 FRANKLIN ST	2014, 2010, 1996
42 VIRGINIA PL	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964
420 FRANKLIN	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930
420 Franklin St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
420 Franklin St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
420 FRANKLIN ST	2014, 2010, 1996
421 Franklin St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
421 Franklin St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
421 FRANKLIN ST	2014, 2010, 1996, 1925

FINDINGS

Address Researched	Address Not Identified in Research Source
423 FRANKLIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930
425 FRANKLIN	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930
425 FRANKLIN ST	2014, 2010, 1998, 1996
425 Franklin St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
425 Franklin St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
426 Franklin St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
426 Franklin St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
426 FRANKLIN ST	2014, 2010, 1996, 1980
427 FRANKLIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1925
428 FRANKLIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
429 FRANKLIN ST	2014, 2010, 1996
429 Franklin St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
429 Franklin St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
43 EDWARD ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1970, 1964
431 FRANKLIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1940, 1935, 1930, 1925
432 FRANKLIN	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930
432 FRANKLIN ST	2014, 2010, 1996
432 Franklin St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
432 Franklin St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
433 Franklin St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
433 Franklin St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
433 FRANKLIN ST	2014, 2010, 1996
435 FRANKLIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1964, 1960, 1935, 1930, 1925
436 FRANKLIN ST	2014, 2010, 1998, 1996
436 Franklin St	2014, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
436 Franklin St	2014, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925

FINDINGS

Address Researched	Address Not Identified in Research Source
437 FRANKL UNION ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930
437 FRANKLIN ST	2014, 2010, 1996
437 Franklin St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
437 Franklin St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
44 VIRGINIA PL	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1955, 1950, 1946, 1940, 1935, 1930, 1925
440 FRANKLIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964
441 FRANKLIN ST	2014, 2010, 1996
445 Franklin St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
445 Franklin St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
47 EDWARD ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
471 VIRGINIA ST	2014, 2010, 1996
473 VIRGINIA ST	2014, 2010, 1996, 1970
474 VIRGINIA ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
475 VIRGINIA ST	2014, 2010, 1996, 1980, 1975
476 VIRGINIA ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
477 VIRGINIA ST	2014, 2010, 2008, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
477 Virginia St	2014, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
477 Virginia St	2014, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
49 EDWARD ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1950, 1925
497 VIRGINIA ST	2014, 2010, 1996, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
5 N PEARL ST	2014, 2010, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
5 PEARL ST N	2014, 2010, 2008, 2001, 1998, 1996, 1925
5 ST LOUIS PL	2014, 2010, 1996, 1985, 1950, 1946, 1940, 1935, 1930, 1925
501 VIRGINIA ST	2014, 2010, 1996, 1980, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
507 VIRGINIA ST	2014, 2010, 2008, 2001, 1998, 1996, 1964, 1960, 1925
509 VIRGINIA ST	2014, 2010, 2008, 1996
51 EDWARD ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1970, 1964, 1960, 1925
513 VIRGINIA ST	2014, 2010, 1996

FINDINGS

Address Researched	Address Not Identified in Research Source
519 VIRGINIA ST	2014, 2010, 1996
520 VIRGINIA ST	2014, 2010, 1996, 1925
53 EDWARD ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
531 VIRGINIA ST	2014, 2010, 1996, 1930, 1925
531 Virginia St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
531 Virginia St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
535 VIRGINIA ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1925
537 VIRGINIA ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1930, 1925
538 VIRGINIA ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1940, 1925
539 VIRGINIA ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1925
540 VIRGINIA ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946
544 VIRGINIA ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970
573 VIRGINIA ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1925
583 VIRGINIA ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1935, 1930, 1925
59 EDWARD ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1946, 1940, 1935, 1930, 1925
6 N PEARL ST	2014, 2010, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
6 N Pearl St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
6 N Pearl St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
6 North Pearl	2014, 2010, 1996, 1925
6 PEARL ST N	2014, 2010, 2008, 2001, 1998, 1996, 1925
6 ST LOUIS PL	2014, 2010, 2008, 1998, 1996, 1992, 1985, 1980, 1975, 1950, 1946, 1940, 1935, 1930, 1925
66 EDWARD ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
68 EDWARD	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930
68 EDWARD ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980
70 EDWARD ST	2014, 2010, 2001, 1996, 1940
71 EDWARD ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1940
72 EDWARD ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1940, 1925

FINDINGS

Address Researched	Address Not Identified in Research Source
73 EDWARD ST	2014, 2010, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1930, 1925
73 Edward St	2014, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
73 Edward St	2014, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
74 EDWARD ST	2014, 2010, 2001, 1998, 1996, 1940
75 EDWARD ST	2014, 2010, 1996, 1975, 1946, 1940
75 Edward St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
75 Edward St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
752 MAIN	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930
752 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1975, 1930
754 MAIN ST	2014, 2010, 2008, 2001, 1996, 1992, 1985, 1980, 1975, 1925
755 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1925
756 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1925
757 MAIN ST	2014, 2010, 2008, 1998, 1996, 1975
758 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1925
759 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1930, 1925
76 EDWARD ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
760 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1950
761 MAIN ST	2014, 2010, 1996
761 Main St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
761 Main St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
762 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1950, 1946, 1940, 1935, 1930, 1925
763 MAIN ST	2014, 2010, 1996, 1955, 1925
763 Main St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
763 Main St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
764 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
765 MAIN ST	2014, 2010, 1996, 1975
766 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1970, 1964, 1960, 1940, 1935, 1930, 1925
767 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1925

FINDINGS

Address Researched	Address Not Identified in Research Source
768 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1946, 1940, 1935, 1930, 1925
769 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996
77 EDWARD ST	2014, 2010, 2008, 2001, 1998, 1996, 1955, 1950, 1946, 1940, 1930, 1925
770 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1946, 1940, 1935, 1930, 1925
771 MAIN ST	2014, 2010, 1996
772 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1925
773 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996
774 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1925
775 MAIN ST	2014, 2010, 1996
775 Main St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
775 Main St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
775 WASHINGTON ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1925
776 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1925
777 MAIN ST	2014, 2010, 1996, 1925
777 Main St	2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
777 Main St	2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
777 WASHINGTON ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950
778 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1930, 1925
778 WASHINGTON ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1940, 1935, 1930, 1925
779 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1925
779 WASHINGTON ST	2014, 2010, 1996
78 EDWARD ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1940
780 MAIN ST	2014, 2010, 1996, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946
780 WASHINGTON ST	2014, 2010, 2008, 1996, 1940, 1935, 1930, 1925
784 WASHINGTON ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1960, 1955, 1950, 1946, 1940, 1935, 1925
785 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992
786 MAIN ST	2014, 2010, 2008, 2001, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
786 WASHINGTON ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1946, 1935, 1930, 1925

FINDINGS

Address Researched	Address Not Identified in Research Source
787 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
787 WASHINGTON ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940
789 WASHINGTON ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940
79 EDWARD ST	2014, 2010, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940
79 Edward St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
79 Edward St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
791 MAIN ST	2014, 2010, 2008, 2001, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
791 WASHINGTON ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1925
793 MAIN	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930
793 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930
793 WASHINGTON ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940
794 WASHINGTON ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1960, 1955, 1950, 1946, 1940, 1935, 1925
795 MAIN ST	2014, 2010, 1996, 1985, 1980, 1975, 1970, 1925
795 Main St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
795 Main St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
795 WASHINGTON ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1925
796 WASHINGTON ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960
797 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960
797 MIAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930
798 WASHINGTON ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935
800 MAIN ST	2014, 2010, 2008, 1996, 1992, 1985, 1975, 1930
800 WASHINGTON ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1930, 1925
801 MAIN ST	2014, 2010, 1996, 1985, 1980, 1975, 1970, 1964, 1960
801 Main St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
801 Main St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925

FINDINGS

Address Researched	Address Not Identified in Research Source
801 WASHINGTON ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1925
802 MAIN ST	2014, 2010, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
802 WASHINGTON ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970
803 MAIN ST	2014, 2010, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960
803 WASHINGTON ST	2014, 2010, 2008, 2001, 1998, 1996, 1964, 1960, 1955, 1950, 1940, 1935, 1930, 1925
804 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1930
804 WASHINGTON ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970
805 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975
805 Main St	2014, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
805 Main St	2014, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
806 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980
807 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975
807 MIAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930
808 MAIN ST	2014, 2010, 1996, 1980
808 Main St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
808 Main St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
808 WASHINGTON ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1955, 1950, 1946
809 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975
81 EDWARD ST	2014, 2010, 2008, 2001, 1998, 1996, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
810 MAIN ST	2014, 2010, 1996, 1930
810 Main St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
810 Main St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
810 WASHINGTON ST	2014, 2010, 2008, 2001, 1998, 1996, 1960, 1925
811 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985
812 MAIN ST	2014, 2010, 1998, 1996, 1985, 1980
813 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985
814 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980
815 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1975

FINDINGS

Address Researched	Address Not Identified in Research Source
816 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980
817 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930
817 WASHINGTON ST	2014, 2010, 2008, 1996
818 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980
819 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1925
820 MAIN ST	2014, 2010, 2008, 2001, 1996, 1992, 1985, 1980
821 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946
821 WASHINGTON ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1925
822 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980
823 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1925
824 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980
825 MAIN ST	2014, 2010, 1996, 1985, 1980, 1975, 1970, 1930
825 Main St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
825 Main St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
826 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1930, 1925
827 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1925
828 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1925
829 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1925
830 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1925
831 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1925
832 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1970, 1964, 1960, 1955, 1950, 1925
833 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1925
834 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1980, 1964, 1960, 1955, 1950, 1925
835 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1925
836 MAIN ST	2014, 2010, 1998, 1996, 1925
836 Main St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
836 Main St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
837 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1930
839 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970

FINDINGS

Address Researched	Address Not Identified in Research Source
842 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1955, 1950, 1946, 1940, 1935, 1930
842 MAN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930
844 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1925
845 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1925
846 MAIN ST	2014, 2010, 1998, 1996
846 Main St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
846 Main St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
847 Main St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
847 Main St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
847 MAIN ST	2014, 2010, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
848 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996
850 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996
852 MAIN ST	2014, 2010, 2008, 1996, 1975, 1970, 1960, 1950, 1925
854 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996
855 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1992, 1985, 1925
856 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1985, 1975, 1925
858 MAIN ST	2014, 2010, 2008, 2001, 1998, 1996, 1985, 1925
9 N PEARL ST	2014, 2010, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
9 N Pearl St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
9 N Pearl St	2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
9 North Pearl	2014, 2010, 1996, 1925
9 PEARL ST N	2014, 2010, 2008, 2001, 1998, 1996, 1925
9 Saint Louis Pl	2014, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
9 Saint Louis Pl	2014, 2008, 2001, 1998, 1996, 1992, 1985, 1980, 1975, 1970, 1964, 1960, 1955, 1950, 1946, 1940, 1935, 1930, 1925
9 ST LOUIS PL	2014, 2010, 1998, 1996, 1985, 1980, 1975, 1970, 1964, 1960, 1950, 1946, 1940, 1935, 1930, 1925

Source Page Images Appendix

TP	Adjoining	Source
✓	✓	Polk City Directories

ST LOUIS PL 2008

Polk City Directories Now on the Internet @ www.citydirectory.com

SAINT LAWRENCE AVE Cont'd

Dicarlo Anna [7]
399 Bender Katherine [9] ..716-873-2123
Bender Glenn L Jr 716-873-2123
400 Ⓝ Osteryoung Adam A
401 No Current Listing
405 Willer Robert A [16] ▲
407 Grotke William C [12] ▲
.....716-873-6710
408 No Current Listing
+ HOBMOOR AVE BEGINS
411 - 412 No Current Listing (2 Hses)
415 Laporte Richard S Sr [47] ▲
.....716-876-0416
418 Dellow Jessica [5] 716-877-8724
Stockmeyer Eric R [11] ▲
Stockmeyer Jessica T
419 Smith Steven C [4] ▲
Smith Amy J
424 Cramer Charles R & Nyla C [35] ▲
.....716-876-5831
425 Darata Joan M [14] ▲
427 Janese Carmela [37] ▲
.....716-874-3698
La Duca Simone A [6]
.....716-875-1176
431 Warakomski Patricia A [2]
.....716-879-0015
+ DELANEY AVE BEGINS
433 Glasgow Christne A [3]
437 Johnson Sandra L [11] ▲
.....716-875-0349
439 Hulshoff David R [18] ▲
.....716-871-0599
441 Kruczek Chester & Loretta [30] ▲
.....716-875-0623
442 Grimaldi Randall A & Karen L [32] ▲
445 Zizzo Mary R [5] ▲
446 Jackson Jennifer R [15]
.....716-875-4175
449 Hoock William N Jr & Flora J [49] ▲
.....716-875-9595
452 Kowalski Edgar S [24] ▲
455 Allen Beverly & Jerry F [15] ▲
456 Hyatt Richard E & Katherine M [21] ▲
.....716-873-3432
459 Abbate Peter J & Kathleen M [22] ▲
.....716-877-5836
460 Nguyen Viet Q [14] ▲ ..716-875-5606
Nguyen Nguyet 716-875-5606
465 Chmielewski John G & Mary M [37] ▲
.....716-877-1591
469 Shaffer Tom C Jr & Susan M [30] ▲
.....716-875-1162
+ CAMPBELL AVE BEGINS
473 Bove Joseph C Sr & Joan C [24] ▲
.....716-875-8355
477 Kramer Paul W & Diane C [40] ▲
481 Mezhir Gloria F [31] ▲
.....716-876-8613
Mezhir Joseph E 716-876-8613
487 Crissy Donald E & Mary J [39] ▲
.....716-874-5149
491 Miniszewski Betty M [48] ▲
.....716-873-4363
Miniszewski Robert A ..716-873-4363
495 Gailitis Peteris [47] ▲ ..716-877-5986
+ DULUTH AVE BEGINS
499 Groulx Gerald J [12] ▲
503 Merz Catherine T [42] ▲
.....716-876-7409
507 Wolbert James J [17] ▲
.....716-875-5248
508 Snell Barbara T [10] ▲
.....716-877-1454
511 Scheifla David A & Donna M [18] ▲
.....716-873-7533
512 - 515 No Current Listing (2 Hses)
516 Molfese James A [22] ▲
.....716-873-6337
519 Lobuzzetta George R & Antonietti [27] ▲
.....716-877-2557
523 Derby Ruth A [32] ▲ 716-876-4235
+ GUNNELL AVE BEGINS
531 Ⓝ Zarha Shannon
532 Mooney Vincent D & Bernese H [24] ▲
.....716-876-4073
536 Brown David F [5] ▲ ..716-876-6516
537 Merecki John J & Judith A [32] ▲
.....716-873-2944
540 Delo Wallace E Sr [47] ▲
.....716-876-5262
541 Colangelo Deborah [13] ▲
.....716-873-0778
545 Abbott James S & James E [15] ▲
.....716-874-3719
546 Pyros Mary K [11] ▲ 716-874-7862
551 Montes Iris [14] ▲ 716-882-9395
554 Ⓝ Bond Eileen
555 Olthaus William J [16] ▲
.....716-874-5227
+ REDMOND AVE BEGINS
561 No Current Listing
564 Ⓝ Miles Andrea D 716-832-3139
Miles G 716-832-3139
565 No Current Listing
568 Mendez Vivian [6] 716-982-0990
Petti Laurel A [13] 716-874-2982
569 - 574 No Current Listing (2 Hses)

SAINT LAWRENCE AVE Cont'd

577 Sprague Joel P & Patricia F [15] ▲
.....716-873-0367
580 Delisio Chris J & Roberta A [23] ▲
.....716-873-1991
581 Hayes Larry H [19] ▲
Hayes Rachel N
584 Rice Rosemary C [25] ▲
.....716-874-3750
585 Baker Jennifer Y [11] ▲
Baker David C
+ HARVEST AVE BEGINS
591 Valenti Bernadine M [11] ▲
595 Barris Marion J [17] ▲
596 Lewis Michael D & Dianne M [13] ▲
599 Hanna Adam G [16] ▲
.....716-831-1028
Hanna Louise M 716-831-1028
600 No Current Listing
604 Clark K [14] ▲ 716-837-8532
Gimlin David P & Catherine G [14] ▲
.....716-837-8532
Hanna Adam G [2] ▲
.....716-837-2678
Hanna Louise 716-837-2678
605 Duckworth Glenn S & Phyllis G [11] ▲
.....716-837-0824
608 Lechnowskyj Anna M [5] ▲
609 Fernandes Karen M [5] ▲
.....716-836-6706
Fernandes Katie 716-836-6706
612 Fleischhauer Dana L [8] ▲
615 Baudo Catherine S [13] ▲
.....716-838-3784
616 No Current Listing
619 Bromberek Phillip R & Judith J [27] ▲
620 Peden Georgia F [30] ▲
.....716-838-2445
623 No Current Listing
+ NEWPORT AVE INTERSECTS
627 - 635 No Current Listing (3 Hses)
639 Sacco Sue A [21] ▲
Sacco Lucy M
643 No Current Listing
649 Barto Margaret A [12] ..716-837-7086
+ COBURG ST BEGINS
653 Reinhardt Cheryl A [5]
659 Milette Duane O [34] ▲
663 Meredith Kathryn E [24] ▲
669 Buscarino Nancy A & Nicholas C [24] ▲
672 Ⓝ Ngo Ndjock Mbong G
.....716-835-1557
Ⓝ Wilson Brittanie 716-833-5916
1 Jaballah Haithem B [8]
.....716-833-4763
1 Jaballah Sonia 716-833-4763
2 No Current Listing
+ STARIN AVE INTERSECTS
• ZIP CODE 14216 CAR-RT C028
703 Almendinger Joan K [11]
.....716-831-0585
Ⓝ Bermudez Severiano Jr
Ⓝ Daniels Theresa A ..716-897-3705
Daniels Anthony V 716-897-3705
705 Abbate Sam P Jr [5] ▲
709 No Current Listing
711 Harris Barbara J [12] ..716-837-9386
719 Calandra Michael C & Antonina M [23] ▲ 716-832-8377
723 Szczepanski Ronald R & Dorothy H [49] ▲ 716-834-1773
729 Trautwein Norman J Jr & Constance [29] ▲ 716-837-4514
733 Kilonsky Jason P [13] ▲
.....716-836-5943
737 Drews Theodore J Sr & Phyllis F [46] ▲ 716-832-5133
741 Wood Harvey E [16] ▲
Wood Christopher J
745 Buscarino Salvatore C [44] ▲
Buscarino Sam
749 - 759 No Current Listing (3 Hses)
763 Davis J [6] 716-837-5866
Davis Shawn L 716-837-5866
767 Ⓝ Terrana Timothy J & Julie L ▲
773 Cruttenden Kelly J [6] ▲
777 Johnson Amber C [12] ▲
781 Marranca Russell G [9] ▲
Marranca Erika J
+ HECLA ST INTERSECTS
785 Huntington Patrick P [2]
789 - 795 No Current Listing (2 Hses)
799 Ⓝ Liebzeit Peter J
Ricotta Agustino J & Helen [38] ▲
.....716-837-0313
803 - 807 No Current Listing (2 Hses)
811 Clabeaux Gerald R [23] ▲
.....716-835-3010
Clabeaux Stacey M 716-835-3010
+ ROSEMARY AVE BEGINS
817 O'Donnell Michael J & Dawn M [14] ▲
.....716-836-8159
821 Floyd Sherri D [4]
825 Hanlon Jeanetta M [2] ▲
.....716-834-0960
829 Rizek Fatmeh N [12] ▲
.....716-836-7729
Rizek Vivelan 716-836-7729

SAINT LAWRENCE AVE Cont'd

833 Nicolera Antonio [25] ▲
.....716-836-5504
+ N PARKER AVE INTERSECTS
BUSINESSES 2 HOUSEHOLDS 293

SAINT LOUIS AVE (BUFFALO)-FROM 289 WALDEN AVE NORTH
• ZIP CODE 14211 CAR-RT C015
13 No Current Listing
18 Hunter Darnelia M [6]
20 - 24 No Current Listing (3 Hses)
26 Ⓝ Cameron Anthony 716-893-2602
Dunston Amorita C [12]
Dunston Kabir
Ⓝ Sykes Ebony
27 - 37 No Current Listing (4 Hses)
38 Mungo Yvette E [9] 716-894-6417
41 No Current Listing
42 Ⓝ Barron B 716-783-9299
Dildy Myra J [8]
Dildy Sharmone M
Ⓝ Harris Mary Jane 716-896-3753
43 Reid L [23] 716-891-4385
44 Hawkins Amelia [24] ▲
.....716-892-9152
47 - 48 No Current Listing (2 Hses)
49 Tolerson Nicole D [2]
52 Hill Robert L [33] ▲
54 Holland Juanita [30] ▲ 716-893-0609
55 - 59 No Current Listing (2 Hses)
60 Schumaker Telsandra [11]
.....716-892-7769
61 No Current Listing
62 Jones Willie C [37] ▲ 716-895-7646
63 Dawson Denise E [12]
Dawson Augusteria
Minnifield William Sr [12]
.....716-897-0875
Moore Augusteria [14] ..716-895-0645
Moore Brian 716-895-0645
66 Bryant Josephin [15] ▲
.....716-893-1658
68 Patrick Millicent D [5] 716-894-2565
Williams Millicent D [33] ▲
71 Carter Doris M [27] ▲ 716-892-6944
Carter Frankie L 716-892-6944
72 Smith Rose M [17] ▲
74 Jordan Vivian A [8] 716-894-5817
77 - 78 No Current Listing (2 Hses)
80 Sykes Terry [4] 716-563-6752
Sykes Ebony R 716-563-6752
81 Bronaugh Layton E [9]
84 - 85 No Current Listing (2 Hses)
89 Robins Eloise [18] ▲
Robins Ronnie
91 Boyd Elizabeth [26] ▲ 716-891-5660
Boyd Atia J 716-891-5660
92 - 96 No Current Listing (3 Hses)
97 Byrd Joanne F [29] ▲
98 Davis Henrietta L [27] ▲
.....716-891-4364
Davis Donald L 716-891-4364
101 McIntosh Frederick W [3]
102 - 103 No Current Listing (2 Hses)
106 Benjamin Beatrice [36] ▲
.....716-892-4517
Benjamin Cynthia 716-892-4517
108 - 113 No Current Listing (5 Hses)
115 Ⓝ Batmon Gegory 716-896-1702
Eatmon Cheryl [6]
119 Woods Geneva [26] ▲
126 No Current Listing
128 Ⓝ Moore Charmaine ..716-895-0835
129 Smith Kelley T [8] 716-897-1808
131 - 134 No Current Listing (2 Hses)
135 Davis Alan A [8] ▲ 716-896-4309
136 No Current Listing
143 Price Carlol [24] ▲ 716-892-9527
145 Berry Kenneth W & Charlotte S [29] ▲ 716-894-9285
Taylor C [27] 716-894-9285
147 No Current Listing
+ GENESEE ST INTERSECTS
HOUSEHOLDS 74

SAINT LOUIS PL (BUFFALO)-FROM 552 VIRGINIA ST
• ZIP CODE 14202 CAR-RT C022
1 Johnson Denise D [20] ▲
2 Wrafter Brian M [9] 716-873-1624
5 No Current Listing
9 RESTORATION WORKS INC brass products 716-856-6400
14 Ⓝ Kimball Ryan 716-852-0782
8 Tarajos Stephen J [7]
15 Folkerth Joshua J [6] 716-852-1037
Folkerth Kathryn A 716-852-1037
17 FEUERSTEIN & SMITH attorneys 716-856-9704
Ⓝ Smith David B
18 No Current Listing
20 Swift Stephen P [19] 716-854-3870
BUSINESSES 2 HOUSEHOLDS 9

SAINT MARGARETS CT (BUFFALO)-FROM 22 COLTON DR
• ZIP CODE 14216 CAR-RT C017
1 Oliver Stephen D [2] ▲

SAINT MARGARETS CT Cont'd

2 Ⓝ Conti Paula R ▲
5 Struski Lori A [16] ▲
6 Costello Joseph S & June B [40] ▲
9 Galla Brian P [24] ▲ 716-874-0327
10 Eckert Anne M [15] ▲ 716-877-8547
15 Scott Chnstopher J [12] ▲
Scott Mary B
16 Keohane Jerry F Jr & Ginny [37] ▲
.....716-877-1439
19 Ellington Christine L [17] ▲
.....716-871-0137
20 Jacob Helen G [38] ▲ 716-874-6193
HOUSEHOLDS 10

SAINT MARTINS PL (BUFFALO)-FROM 53 TURNER AVE NORTH
• ZIP CODE 14220 CAR-RT C024
4 Reynolds Joseph A [47] ▲
.....716-822-2720
Reynolds Carol A 716-822-2720
8 Goc William J Jr & Luanne [18] ▲
12 Licata Angelo J & Deborah A [29] ▲
.....716-827-5849
18 Peterson William F & Helen G [40] ▲
.....716-825-5641
22 Bohen Joseph E [46] ▲
.....716-822-6632
Bohen Colleen A 716-822-6632
26 Germain Thomas P & Joanne M [30] ▲
+ BRITT AVE BEGINS
HOUSEHOLDS 6

SAINT MARYS RD (BUFFALO)
+ WALDEN AVE INTERSECTS
• ZIP CODE 14211 CAR-RT C019
10 Jernatowski Genevieve A [16] ▲
.....716-894-7443
Jernatowski Linda J 716-894-7443
11 CUT & TRIM LAWNCARE beauty salons 631-749-3374
14 Wojtowicz Kenneth J [14] ▲
.....716-895-6455
17 Armbruster James M [21] ▲
.....716-894-5822
21 Rice Barbara J [19] ▲
24 Davis Kenneth [5] ▲
Lewis Linda L [8] ▲ 716-894-0194
26 Harla Kenneth & Diane M [21] ▲
.....716-892-6448
27 Ferguson Selina R [15] ▲
30 Divers Gwendolyn E [2]
.....716-896-3084
31 Pierowicz Mary T [18] ▲
.....716-896-2503
32 Jackson Leza M & James L [19] ▲
35 No Current Listing
36 Neal Eddie R Jr & Michelle Y [5] ▲
39 Crocker Dennis F Jr [12] ▲
Crocker Connie L
40 Olszowka Edward L [49] ▲
.....716-894-4083
Olszowka Terry 716-894-4083
41 Mack Debra L [12] ▲
44 Obstarczyk Frank J [38] ▲
.....716-895-1452
45 Zolnowski Leon [47] ▲ ..716-893-3152
48 Oleksy Hope A [16] ▲ ..716-893-6619
Oleksy April S 716-893-6619
49 Mose Clarinda J [16] ▲
.....716-897-5434
50 No Current Listing
53 Kotowski Gregory A [2]
54 Payne James & Reola [13] ▲
.....716-892-3751
57 Patterson Martino D [2] ▲
58 Jackson Marie Z [13] ▲ ..716-605-4355
Jackson Samuel II 716-605-4355
59 Calhoun Chasrene [21] ▲
.....716-897-0469
Calhoun Carlos D 716-897-0469
60 Hatton Kenneth & Darleen M [14] ▲
63 Crule Janice [3] 716-894-0798
Nixon Tameka [2]
Nixon Nevaeh
Ⓝ Shack Dominique
64 Ⓝ Haesner Loretta 716-892-3195
Woods Constawella D [9]
67 Carter Michelle L [11] ▲
Carter Corey
68 - 71 No Current Listing (2 Hses)
72 Roberts Lucretia A [12] ▲
.....716-894-8365
73 Graham Nicole [5]
74 No Current Listing
77 Bishop Willie V [11]
Bishop Earl A II
78 Ⓝ Boodram Ramajass ▲
.....716-897-0436
82 Hunt John T [2] ▲ 716-892-0639
85 Baker J [8] 716-897-1345
86 Ⓝ Jefferies M 716-381-8069
Sanders Carmen L [11]
88 Priester James L [10] ▲
91 Sanders Darlene [12] ▲
92 Claxton Lowell G [27] ▲
Ferris Lowell M & Linda M [38] ▲
.....716-896-5354

SAINT MARYS RD Cont'd

95 Bobbitt Thomas J & Mironda [12] ▲
.....716-894-8089
96 Chambers Dorothy L [20] ▲
99 No Current Listing
100 Ruffin Julia L [12] ▲ 716-893-0364
Ruffin Phyllis C 716-893-0364
101 Taylor Mario D [3] ▲
102 No Current Listing
105 Dixon Phyllis A & Kevin L [15] ▲
.....716-891-4272
106 Pickens Toi S [8] ▲ 716-895-4664
Pickens S 716-895-4664
109 Riley April L [8] ▲
Riley Aaron
110 Cunningham Pamela C [11] ▲
.....716-896-8328
111 Pratt Amie J [16] ▲ 716-895-2303
Pratt Kenneth L Jr 716-895-2303
114 Dojka James E & Dottie A [23] ▲
.....716-896-7037
115 Peck Ann C [28] ▲ 716-896-3640
Peck Karen A 716-896-3640
116 Sikorski Paul L & Theresa A [20] ▲
.....716-891-5121
119 Ⓝ Harris Ruth R
Manney James M Jr & Cheryl L [17] ▲
120 Brown Gloria L [10] ▲ ..716-891-1932
123 Harris Robert P Jr [8] ▲
.....716-897-0350
Harris Jane 716-897-0350
124 Zak Theresa J [32] ▲
Zak Joshua J
127 Ⓝ Dalton Sheila E 716-893-5246
128 Janiszewski Marge [24] ▲
.....716-896-8585
+ DOAT ST INTERSECTS
BUSINESSES 1 HOUSEHOLDS 69

SAINT PAUL MALL (BUFFALO)-FROM 944 ELLICOTT ST WEST
• ZIP CODE 14209 CAR-RT C008
29 Foster M [14] 716-882-0786
Foster Terry M 716-882-0786
30 Ⓝ Clyburn Louella 716-783-7994
Ⓝ Lane Ena M
Ⓝ Sinclair Louella A
31 Holley Kenneth B & Sharon Y [30] ▲
.....716-886-1491
32 - 33 No Current Listing (2 Hses)
35 Brown Cottrell L [31] ▲ ..716-882-8546
Brown Milton 716-882-8546
36 Scott Simone O [2]
38 No Current Listing
39 Morrow Anthony [2]
41 Ⓝ Bell K 716-881-0155
42 O'Connor Timothy M [31] ▲
.....716-881-6139
O'Connor Marguerit M ..716-881-6139
43 No Current Listing
46 Ⓝ Aljuwani Ayesha S
Goree James [5] 716-883-6985
47 Whitlock Bonita M & Kittrell E [17] ▲
.....716-885-1131
+ BEST ST INTERSECTS
HOUSEHOLDS 17

SAINT STEPHENS PL (BUFFALO)-FROM 67 SMITH ST NORTHWEST
• ZIP CODE 14210 CAR-RT C017
16 Mc Coy Shirley M [19] ▲
.....716-824-4042
18 Mendola Anthony J & Joan M [46] ▲
.....716-822-8392
19 No Current Listing
20 Verrastro Margaret C [27] ▲
22 Mendola Michelle J [12] ▲
.....716-827-0212
23 No Current Listing
24 Cullen Loretta A [11] ▲ ..716-826-5958
Cullen Eugene F 716-826-5958
25 Negron Charles C & Susan C [17] ▲
26 No Current Listing
28 France Justin D [2]
France Donna M
31 Pasqualetti Lewis A [12] ▲
.....716-823-1506
Pasqualetti Adam J 716-823-1506
33 No Current Listing
34 Pawlowski Darrin L [9] ..716-826-1962
38 Cavanaugh Betty L [27] ▲
Cavanaugh William J II
39 Simonick Mary R [21] ▲
.....716-826-7334
Simonick Tracy L 716-826-7334
40 Klein John D [8] ▲ 716-822-8433
41 McFadden Gerald T & Lorraine A [5] ▲
42 McEvoy Rea [8]
43 Golden Rita A [17] ▲ 716-828-1216
Golden Christian J 716-828-1216
44 Greene Colleen M [4]
46 No Current Listing
49 Mello Suzanne M [11] ▲
52 No Current Listing
53 Chludzinski George [32] ▲
Chludzinski Edward F

STREET GUIDE

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✓	✓	R.L. Polk Company, Inc.,

ST LOUIS PL 1970

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ST LOUIS AV—Contd

111 PLEWINSKI CHARLOTTE ●
894-3568
113 NEUBIG BARBARA MRS ●
FELDER CLARENCE A 895-3490
115 ZAMRCK JOHN A ● 892-4743
116 BISON DCOR CO 897-1433
119 OSTROWSKI MARY A MRS ●
892-6249
122 BIELECKI CATH MRS ●
893-7754
126 FARNHAM ARLON R ● 895-4245
NEUBIG MAGDALENE MRS
893-3859
127 MICHELS WM E 893-8261
MARTIN GERTRUDE MRS ●
894-5765
128 MAYS EDMUND J ● 892-4367
129 KACZMAREK NORMAN A ●
895-1456
CHROSNIAK ANNA C MRS
892-2870
131 MALICKI EDW S 896-0691
PIROG LEO ● 896-0691
134 NAGI ANDREW F ● 892-7928
135 OLSZEWSKI STANLEY ●
893-7959
136 EIKENBURG JOSEPH H 896-4933
CHOINSKI FLORENCE 893-5069
137 GRIMMER FRANK J ●
138 WUEST ALBERT J ● 893-2952
143 JAKUBOWSKI JOHN 896-3689
145 COPPERBERG LUCILLE L MRS ●
893-2569
BALASH MARGT L MRS 894-7789
147 PANEK RICHD L ● 895-7529
---GENESEE INTERSECTS

17

ST LOUIS PL -FROM ½ BLK TO 519 VIRGINIA

---ZIP CODE 14202
1 ESSIG ALBERT P 853-3848
ROSS MARTHA S MRS 854-4737
HILL HARRIET F 852-8540
2 APARTMENTS
1 VACANT
2 COYLE JOHN W 854-5431
3 HEILENREICH IRENE L MRS
854-6199
4 UUS LYDIA MRS 852-2494
STREET CONTINUED
5 FIUSHONE SAML 854-5589
6 VACANT
10 GIANCONTIERI JOSEPH 852-6534
DIEHL ROBT A
FEDERLE RENEE V MRS 853-0305
DARWIN FERN M MRS 852-2129
FOX HARRY A 854-0692
POZMUS ANTHONY F 852-2351
12 EETROS SADIE A 884-3220
CAVE LAWRENCE 853-3609
HARVEY FLORENCE E
PILOT MARTIN F
STEVENS JAMES
14 APARTMENTS
B-1 HENNESSY LULA M
852-6414
B-2 ROSS HILDA M MRS
854-8060
1 PAGNIEZ ANTONIN F
853-6140
2 SALINARDO EDITH MRS
854-6259
3 LYNCH ROSE 854-3558
4 LESAAR SALLY 856-2947
5 PENDER LEO F 852-7050
6 VACANT
15 ALLEN JAMES A 853-5291
BRENNEN RICHD P 852-8840
17 LENNON GRACE MRS
18 APARTMENTS
B-1 LEMKE RAYMOND F
B-2 LANZA ANTHONY 853-4818
1 KOCH CAROLINE M MRS
854-3139
2 GYMRA EMMA MRS 854-6421
3 VOLLER ROSE
4 GORDON MARIAN 852-4854
5 WHEATLEY DOUGLAS L
6 PFECHTL ROBT
20 APARTMENTS
B1 DI GESARE BENJ
B2 MARTEN EDW J 853-3308
1 LANGEMAN HELEN 853-6521
2 FISHER MICHL R 854-0919
3 CASEY CLIFFORD L
4 BEHRINGER WM C 852-6944
5 JOHNSON HAROLD W 856-0460
6 DOWDELL AUGUSTA 852-1339
7 MARTIN ADA M MRS
8 LESLIE NOREEN M 853-6086
9 TULLOCK WM M JR 856-6459
10 JANKELOVIC BERNARD
11 LYNCH MARIE 854-3780
12 ROYNER RAE MRS 853-3948
---VIRGINIA INTERSECTS

105

ST MARGARET'S CT -NORTH ½ BLK TO 20 COLTON DR

---ZIP CODE 14216
1 GREGORETTI EDINO ●
2 MYERS JOHN W ● 876-0579
5 ELSHEIMER E RALEIGH ●
876-9596
6 COSTELLO JOSEPH S ●
9 MC CARTHY HARRY F ● 875-3959
10 STEVENS ELMA J ● 876-4618
15 COMER H PETER ● 873-4409
16 KEOHANE WM J ● 875-4902
19 GUZZIO JOHN R ● 875-6869
20 HUGHES ROBT ● 876-7647
---COLTON DR INTERSECTS

56

ST MARTIN'S PL -FROM TURNER AV NORTH TO BRITT AV 1 EAST OF ABBOTT RD

---ZIP CODE 14220
4 REYNOLDS LOREN R ● 822-2720
8 MASTERSON GEO E ● 822-5274
12 GALLIGAN JOSEPH W ● 826-3341
18 DE GAL PAUL M ● 823-3959
22 BOHEN JOSEPH E ● 822-6632
26 KORZELIUS LORETTA E MRS ●
826-1726
---BRITT AV BEGINS

102

ST MARY'S RD -FROM 375 WALDEN AV NORTH

---ZIP CODE 14211
10 DRESSEL PHYLLIS MRS ●
14 MANN EUGENE A ● 893-3035
MURRAY TIMOTHY J
17 BUKOWSKI STANLEY J ●
895-5924
MINCH VICTORIA F MRS
892-7053
21 CIOLCZAK LOUIS F ● 893-4240
24 BARON ANTHONY ●
26 FREIER BERTHA M MRS ●
895-1356
TOMCZAK FRANK ●
27 JANKOWSKI CHESTER J ●
892-5955
30 KOWALSKI THADDEUS J 892-6790
DUSZKIEWICZ KATH L MRS ●
893-1161
31 NEUBAUER MARTIN B ● 895-5234
32 TRZCINSKI THADDEUS P ●
893-8143
HOFFMAN GEO 896-8031
35 DOMINO AGNES S ● 895-5687
36 RATAJCZAK ALBERT J ●
892-8158
BORYCKI MARK H 894-9550
39 KLAMUT HELEN MRS ● 893-9561
40 OLSOWKA EDW L ● 894-4083
41 BIALKOWSKI BARBARA F MRS ●
893-5184
STACHURA WM B 895-2860
44 KUSZ THERESA MRS 893-0901
SIKORSKI MARY A MRS ●
893-0901
45 ZOLNOWSKI LEON ● 893-3152
DOLAN CLARA F MRS 892-6197
48 KUCHTA STANLEY F ● 893-2881
49 NOWAK ANGELINE ● 895-2371
NAGORSKI FRANK M 895-2272
50 SZYJKOWSKI GEO ● 893-0741
53 JEDRZEJEWSKI ANTHONY F ●
896-0083
54 BRICK PETER H ● 895-5300
57 NAWROT PEARL R ●
58 KUBALAK WALTER E ● 894-7697
59 ANDRZEJEWSKI ROSE MRS ●
894-4365
KADELL LEONARD V 894-4365
60 MOSAKOWSKI FELIX ● 893-0303
BROWN ROLAND S JR
63 DOMINIAK FRANK E ● 894-2001
DOMINIAK THOS F 892-4078
64 JARZYNIECKI MICHL S ●
JARZYNIECKI RICHD R 892-2564
67 JANIK LEONARD F ● 894-3718
68 SODO MARY ● 894-2097
SIPOWICZ FRANK B 893-7115
71 JACHIMOWICZ FRANCES M MRS ●
823-2344
72 JAROCKI PETER ● 894-1857
73 PIERTRZAK MATHEW ● 894-9755
BYRON THOS
74 SUCHOCKI RONALD N ● 896-1973
BIELICKI JEROME 896-1082
77 SLAWINSKI JOSEPH A ●
895-1877
TAMORSKI EDW A 892-5380
78 MIELKE KURT H ● 895-7881
82 JABCZYNSKI HENRY A ●
896-4184
85 BOJANOWSKI MYRON 892-8930
KAITANOWSKI FRANK ● 894-6941
86 SACILOWSKI JOHN F ●
SKOWRON HENRY F 895-6377
---FELIX PL BEGINS
88 DZIEDZIC PETER ●
91 SNUSZKA EDW I ● 893-8196
92 PIOTROWSKI CHARLOTTE MRS ●
PYSZCZYNSKI JOHN W 895-3797
95 PIENTKA JOSEPH S ● 895-9377
CHRISTEN HARRY S 892-8726
96 BOJANEK JOSEPH R ● 895-7851
99 ODRE STANLEY W ● 892-2356
100 KALE NORMAN F ● 892-0745
101 JENDRASIAK STANLEY M
892-4372
KOFFMAN JAMES 893-6220
102 SARACKI MARY ● 894-1640
RUGGIERO JOHN 894-5792
105 BAUER STEPHANIE MRS ●
893-5359
106 KANTOWSKI EDWIN L ●
894-9719
109 WIND ALICE MRS ● 892-1635
110 KASPRZAK EDW L ● 895-1711
KASPRZAK KENNETH E 897-3059
111 ZALIKOWSKI EDMUND 894-7535
114 PADAK JOHN P ● 893-7141
115 SAEZ FEDOR ● 892-3456
116 JANKOWSKI DANL S ● 893-7693
119 SETTLE CHARLES H ● 895-3963
120 DZIELINSKI EDW ● 892-5961
123 WEGRZYNOWSKI STANLEY J ●
894-0144
124 FRYSIAK JOHN M ● 895-8909
127 WIGORSKI HENRY ● 894-4169
128 SCHULTZ WALTER F ●
---DOAT INTERSECTS

923

ST MICHAEL PL -FROM WASHINGTON EAST 1 SOUTH OF E TUPPER

---ZIP CODE 14203
---ELLICOTT INTERSECTS

140

ST PAUL ST -FROM 1081 MAIN EAST

---ZIP CODE 14209
19 PICKERT GERARD K ● 886-6730
FANCHER FLOYD 883-8992
21 BAILEY ETTA MRS 883-1341
23 BECOTE ANDREW
NEALY WM 884-2679
27 MARSHALL WM J
29 GAULT HELEN V MRS 881-1440
WOODS WILLIE 883-1399
30 OUR LADY OF LOURDES CONVENT
884-1340
31 HAIRISTON JOHN G 881-1630
PERRIN VIRGINIA MRS 882-4051
32 BURDETT CLARENCE 884-7818
HICKS C HOWARD
33 NO RETURN
35 SANTORO MARGT M MRS ●
882-5875
HORE LAWRENCE M
36 MERCHANT BETTY
WESLEY BERTHA 882-5861
38 LEWIS CHARLES ● 884-6629
PETTY ALMA MRS 886-6584
39 HILL CHESTER ● 886-7809
41 ROWE JAMES B ● 882-1496
MALETTE MARIE 884-0931
42 GENTILE MICHL ● 884-2066
LYNCH URSULA M 884-3659
43 TRIPLETT THOS 885-5884
FINN EARL A 886-6973
46 WOLF RAYMOND A
47 BURSIE IRENE MRS
WESLEY CLIFFORD 883-6415
48 MOORE BETTY 884-5178
49 LINCOLN JAMES 886-6085
MYLES JANE L
52 CLUCAS PLUMBING CORP
885-2424
---ELLICOTT INTERSECTS
69 RICHARDS MARION MRS 885-9059
71 VACANT
72 BERRY WILLIE J 881-0499
73 WATSUN ERNEST JR 881-0230
---WELMONT PL INTERSECTS

72

ST PONTIAC ST -FROM BUFFALO RIVER NORTH 1 EAST OF S OGDEN (NOT OPEN)

---ZIP CODE 14206
---STEWART INTERSECTS (NOT OPEN)
---(FORMERLY POLISH PLACE)

4

ST STEPHEN'S PL -FROM NEWR NORTHEAST TO 900 SOUTH PARK AV

---ZIP CODE 14210
---SMITH ST INTERSECTS
16 NICOLL FRANCIS C ● 823-7249
18 MENDOLA ANTHONY J ● 822-8392
19 BRADY JOHN R ● 824-7453
20 DURKIN THOS J ● 825-1691
22 CALLAHAN NELSON M ● 822-0979
23 PROUDMAN ELIZ R MRS ●
824-2484
24 KLAUK CHARLES ● 823-2694
25 SONBERG ROBT C ● 823-1363
26 STACKPOOLE WM V 826-1172
28 SZARPA ANGELINE MRS ●
824-6335
REGULA RICHD E
30 BALKO JOSEPH 825-0695
31 DORMAN ROGER E ● 825-4518
32 DOWNS ALICE MRS ● 822-0980
33 RUSEK LEONARD F ● 825-8431
34 CAVANAUGH WM J ● 824-1287
38 ZAMROCK GERTRUDE MRS ●
825-1658
39 KIEBZAK JOSEPH J ● 824-1664
SIMONICK GEO
40 VALLEE LOUIS J ● 826-0354
41 DINGLEDEY LOUIS ● 825-7795
42 BALL CHARLES A ● 824-7453
43 WIRTH CATHERINE ● 823-3141
44 REED LESLIE W ● 822-0216
46 BREHM GERARD H 825-6317
47 HANLEY ALICE E MRS
SCHLAGER GEORGETTE M MRS
823-4680
REAR FINNERTY JAMES J 826-3839
49 MC GOVERN VINCENT R ●
824-8360
52 QUINN RICHD
53 CHLUDZINSKI JOSEPH J ●
824-4783
---SOUTH PARK AV INTERSECTS

62

SALEM ST -FROM 500 ABBOTT RD NORTHEAST

---ZIP CODE 14220
20 REGAN ANN C MRS FUNERAL DIR
● 823-8808
21 O'KEEFE MARIE H MRS 823-2659
REAR RICHARD JULIUS 825-4288
23 EDINGER HOWARD P ● 822-5529
24 FITZGERALD EDMOND ● 826-0067
POTTER CATH R MRS 825-0205
25 CONSIDINE JAMES F 826-3373
LAUTH CLETUS G ● 823-0155
27 FABIAN FRANK J ● 823-3671
28 WILSON HUGH J ● 826-2437
29 KLUGE JOHN G 823-4619
30 CARR IRENE A MRS ● 822-0529
SMITH JAMES E 825-6270
31 ESCHRICH WILTON L ● 822-3595
35 SYDOROWICZ STEPH ● 826-0962
JAGABANDHU N
36 MERVINE JOSEPH P ● 824-1706
39 NORTON THOS C ● 824-9871
MENARD LOTTIE S MRS 824-5346
40 WRIGHT VICTOR A ● 822-7819
41 BARRETT HAZEL M ● 824-3031
FLYNN ALBERT F ● 822-9704
42 STANFIELD ROY F ● 822-2279
45 SMITH HOWARD G ● 825-4130
46 STANDISH JOHN J ● 822-6461
SCHWENDLER JOE E
---CUMBERLAND AV INTERSECTS
79 PEVILLE JOSEPHINE S MRS ●
80 GROCHALA RICHD E ● 824-1359
83 ELSTON MARION MRS ● 824-6357
O'BRIEN RUTH 826-0451
84 HOERNER GEO J JR ● 824-4279
MAHONEY EDWIN J 822-5479
85 NAGEL ARLAND C ● 822-6996
SHEEHAN MARGT MRS 822-6681
86 OSIKA CHARLOTTE S MRS ●
822-6039
MALLEY RAYMOND 824-4166
89 MOEBIUS GRACE E MRS ●
825-1147
SUNDSTROM OSCAR 825-6461
90 ERTMAN DONALD M ● 823-8593
ERTMAN ANN
93 GALBRAITH HAROLD E ●
824-2584
97 HENESEY PATK A ● 825-4415
POLONCARZ JOSEPH J
99 VACANT
103 KUSZMAUL CORLISS K ●
825-1098
ROBINSON THOS C 826-4438
104 APARTMENTS
1 HARTNETT FLORENCE M MRS
825-4999
2 QUINN FRANK D 824-7981
3 GRAOL CLARA A 823-7151
4 KAVANAGH ANNETTE M
823-2443
106 APARTMENTS
5 CLABEAUX LAWRENCE L
6 HANAVAN LEE J MRS
823-1421
7 MONTAGUE DONALD E
823-3601
8 PETTITT FRANK J 824-8390
107 OTT ROY E PNTR ● 822-0634
HAUX KARL 824-2727
108 APARTMENTS
9 LENOX ANN M 825-6557
10 LILLIS AGNES
11 SMITH JOSEPH L 822-8666
12 KAY IRWIN S 823-7530
---SOUTH LEGION DR INTERSECTS

22

SAN DOMINGO AL -FROM 213 EMSLIE EAST

---ZIP CODE 14206
---BOND INTERSECTS
---LORD INTERSECTS

80

---MONTGOMERY ST
---INTERSECTS
---CLARE ST INTERSECTS

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8 Branches for Boys, Girls, Men and Women
YMCA

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59 Piejda Stanley K © TX2-1566
60 Konarski Walter N TX2-3330
Carda Wayne H TX4-3175
61 Hojnacki Anna Mrs © TX2-9414
Obstarczyk Stanley J TX5-1783
62 Blodgett Edward E 892-3987
Pietrzak Peter P jr © TX2-7480
63 Bzibziak Austin J © TX3-9739
Neubauer Walter J 894-5246
65 Karnyski Anthony F TX4-7166
66 Mex Benjamin F TX4-5737
Turowski John ©
67 Varsallone John V
Koiczynski Edward TX2-9198
68 Bierdron Alexander F © TX3-5957
71 Millace Nicholas P 896-5663
Williams Herbert R TX2-4036
72 Siewierski Julia Mrs © TX3-6536
Morcio Frank P TX2-8391
74 Ruda John F © TX3-5871
Grelewicz Richard E TX3-8838
77 Napieralski Mary A Mrs © TX5-5663
78 Jankowski John M © TX3-4970
Golinski John W
80 Baginski Henry jr
Baginski Henry H TX3-6929
81 Hintz Vincent F © TX4-2515
Dobiesz Edwin J 896-8042
84 Magiera Robert C ©
Pawlowski Anna Mrs TX4-0453
85 Plewinski Bruno L TX4-6818

86 Kull Hilda Mrs TX6-7513
Kaczanowski Leo L TX4-4873
88 Coric Saban TX5335
Brady Ronald R TX4-7025
89 Klosinski John R © TX4-4992
91 Weaver Ruth L Mrs TX4-0010
Misnik Eugene J TX5-8869
92 Beck Elizabeth M Mrs 892-9289
Wesolowski Robert E © 896-4531
93 Pawlowski Bronislaus A ©
94 No Return
96 Waleczszak Norman TX2-9283
97 Jenson Norbert J TX5-4720
Czajka Edmund J © TX5-9378
98 Szuminska Bertha M © TX2-0357
Chryanowski Alfred M TX6-1663
101 Krawczyk Bernard © TX4-1833
Schmitt Steven R TX2-6162
102 Kubera Stella C Mrs © TX4-8340
103 Pfister Jacob
Guenther Lina Mrs TX6-8651
Bickelman Christine Mrs
106 Zubar Lawrence A TX4-3862
108 Schmidt Donald A
Bolm Robert J TX2-8646
109 Schneider Philip
Scheuer Ellsworth J TX4-2512
110 Baczkowski Henry © TX3-2935
111 Thomas Richard J TX6-4123
Klewinski Charlotte © TX4-3588
Chrzanowski Stephen B 895-4541
113 Neubig Barbara Mrs ©
Felder Clarence J TX5-3490
115 Zamrok John A © TX2-4743
116-20 Becht Sht Mtl Wks Inc TX2-4447
Fisher Nicholas acct
Rosen Roofing Co Inc TX2-4447
119 Foltyn Zdzislaw S 894-9830
Ostrowski Mary A Mrs © TX2-6249
Thompson Donald R TX2-1223
122 Bielecki Stephen J © TX3-7754
126 Farnham Arlon R © TX5-4245
Neubig Anthony C TX3-3859
127 Michels William E 893-8261
Martin Frank F © TX4-5765
128 Mays Edmund J © TX2-4367
129 Kaczmarek Norman A © TX5-1456
Chrosniak Michael J 892-2870
131 Pirog Leo ©
Malicki Edward S TX2-1964
134 Nagi Andrew F © TX2-7928
135 Olszewski Stanley © TX3-7959
136 Choinski Florence TX3-5069
Kaminski Joseph B © TX2-7694
137 Grimmer Frank J TX2-1442
138 Wuest Albert C © TX3-2952
143 Butzek Victor F © TX2-5993
145 Copperberg Lucille L Mrs ©
TX2-3248
147 Panek Richard L © TX5-7529
Hanley Carl B 894-3802
Genesee intersects

17

ST LOUIS PL—From ½ blk to 519 Virginia
Zone 2

1 Essig Albert R TL3-3848
Griesinger Hattie B Mrs TL3-8869
Hill Harriett TL2-8540
2 Apartments
1 Campbell James TL6-0097
2 Coyle John W TL4-5431
3 Heidenreich Irving C TL4-6199
4 Uus Lydia Mrs TL2-2494
5 Smith Peter F TL2-3368
Street continued
5 Gilbert Lottie Mrs TL2-3520
6 Ward Elizabeth S Mrs TL4-5942
10 Rozmus Anna Mrs TL2-2351
Fox Henry A TL4-0692
Federle Renee V Mrs TL3-0305
Pilot Martin 854-1945
12 Betros Sadie A TL2-3220
Herger Paul int dec TL2-5654
Pilot Martin TL4-1945
14 Apartments
bsmt Ross Martha S 854-4737
Ross Hilda 854-8060
1 Pagniez Antonin
2 Williams Clara TL4-2382
3 Lynch Rose TL4-3558
4 Larson Sally TL6-2947
5 No Return
6 Nidle Kurt
7 Vacant
18 Apartments
bsmt No Return
1 Koch Caroline M Mrs TL4-3139
2 Gyra Emma 854-6421
3 Finnegan Delia K Mrs TL3-0895
4 Cutler Pauline
5 Vacant
6 Prickel Joseph
20 Apartments
B1 Zegan Dorothy TL4-5674
B2 Acosta Luella
1 Langerman Helen TL3-6521
2 Simon Ruth
3 Brooks Roger A
4 Behringer William C TL2-6944
5 Johnson Harold W TL6-0460
6 Zeller Louis F TL4-3340
7 Martin Ada Mrs
8 Leslie Noreen TL3-6068
9 Leslie Noreen M TL3-6086
10 Freitag Martha
11 Nolan Julia TL4-5238
12 No Return
Virginia intersects

105

ST MARGARET'S CT—North ½ blk to 20 Colton dr
Zone 16
1 Gregoretti Edino © TR7-2825
2 Myers John W © TR6-0579
5 Elsheimer E Raleigh © TR6-9596
6 Hill Willis H © TR7-4403
9 McCarthy Harry F © TR5-3949
10 Crissy Roy W © TR6-4618
15 O'Brien Frank J © TR7-8419
16 Keohane William J © TR6-9438
19 Guzzio John R © 875-6869
20 Kulat Sophia L Mrs © TR7-3643
Colton dr intersects

56

ST MARTIN'S PL—From Turner av north to Britt av, 1 east of Abbott rd
Zone 20
4 Reynolds Loren G © TA2-2720
8 Masterson George E © TA2-5274
12 Winkler Howard A © TA3-9964
18 Domras Robert A © TA3-6259
22 Bohen Joseph © TA2-6632
26 Korzelius Gene L © TA3-2626
Britt av begins

102

ST MARY'S RD—From 375 Walden av north
10 Dressel Donald A © TX5-9464
14 Mann Eugene A © TX3-3035
Myers Alfred R TX5-5135
17 Bukowski Stanley J © TX5-5924
Kostelny Thomas A TX3-8389
21 Cioleczak Louis F © TX3-4240
24 Nowakowski Peter J © TX3-0477
26 Tomczak Frank
Frier Bertha Mrs TX5-5747
27 Jankowski Chester J © TX2-5995
Machtel Leonard J TX3-0477
30 Duszkiewicz Katherine L Mrs ©
TX3-1161
Kowalski Thaddeus J TX2-6790
31 Dukiet Sidney B © TX3-3667
32 Trzcinski Thaddeus J © TX3-8143
Hoffman George TX6-8031
35 Domino Rosa Mrs © TX5-5867
36 Gniewecki Thaddeus F TX2-4797
Ralajczak Albert J © TX2-8158
39 Klamut Helen Mrs © TX3-9561
40 Olszowka Edward L © TX4-4083
41 Bialkowski Barbara F Mrs © TX3-5184
Einsporn Lillian E
44 Sikorski Mary V Mrs © TX3-0901
Sikorski Theresa © drsmkr
TX3-0901
45 Dolan Clara F Mrs TX2-6197
Zolnowski Leon A © TX3-3152
48 Kuchta Stanley F © TX3-2881
49 Nowak Stanley © TX5-2371
Nagorski Frank M TX5-2272
50 Szyjkowski George © TX3-0741
53 Jedrzejewski Anthony F © TX2-7787
54 Brick Peter H © TX5-5300
58 Kubalak Walter E © TX4-7897
59 Malinski John A TX2-2674
Andrzejewski Rose Mrs © TX4-4365
60 Mosakowski Felix © TX3-0303
63 Rydza Roman J © TX4-1043
Rydza Donald J TX6-5460
64 Jarzyniecki Michael S ©
Jarzyniecki Richard R © TX2-2564
67 Janik Leonard F © TX4-3718
68 Sodo Katherine Mrs © TX4-2097
Szaras Jerome D
71 Jachimowicz Victor J © TX3-2344
72 Jarocki Peter © TX4-1857

73 Pietrzak Matthew © TX4-9755
74 Murszewski Casimer © TX4-9046
Bielicki Jerome
77 Slawinski Joseph A © TX5-1877
78 Vacant
82 Jabczynski Henry A © TX6-4184
85 Radziwon Edward C TX4-0501
Kaitanowski Frank 894-6941
86 Sacilowski John F ©
Skowron Henry F TX5-6377
Felix pl begins
88 Mazur John A © TX4-7397
91 Snuszka Edward I © TX3-8196
92 Pyszczynski John J TX5-3797
Piotrowski Lottie Mrs
95 Wojciechowski Mary Mrs ©
Romanowski Leonard F TX3-8366
96 Bojanek Joseph R © TX5-7851
99 Odre Stanley W © TX2-2356
100 Kale Norman F © TX2-0745
101 Jendrasiak Stanley TX2-4372
102 Kobee Albert E
Saracki Mary M Mrs © TX2-4385
105 Bauer Stanley J © TX3-5359
106 Kantowski Edwin L © TX3-2760
109 Wind Robert S © TX2-1835
110 Kasprzak Edward L © TX5-1711
Wieserner David P TX5-4694
111 Jankowski Regina C Mrs © TX2-1608
Steinwandel Howard E 894-2395
114 Padak John P © TX3-7141
115 Saez Fedor ©
116 Jankowski Daniel S © TX3-7893
119 Settle Charles H TX5-3963
120 Dzielinski Edward © TX2-5961
123 Wegrzynowski Stanley J © TX4-0144
124 Molenda John W bldg contr ©
TX4-2992
127 Przybyl John J © TX3-6966
Galas Victoria Mrs ©
128 Schultz Walter F ©
Doat intersects

2B15

ST MICHAEL PL—From Washington east, 1 south of E Tupper
Ellicott intersects

140

ST PAUL—From 1081 Main east
Zone 9
19 Pickert Gerald K © TT6-6730
21 Bailey Etta Mrs TT3-1341
23 Weeks Shelton
27 Marshall William J TT6-7032
29 Montgomery Clarence
30 Noonan Elizabeth C Mrs © TT5-9026
31 Smith Edith Mrs
Danglis Sophie S Mrs © TT6-4986
32 Salter Marie C © TT4-0479
Figliola Mildred M TT6-2887
33 Swartz William J © TT5-2878
Koelmel Cecelia C TT4-0931
35 Santoro Margaret M Mrs © TT2-5875
Hore Lawrence M

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TP	Adjoining	Source
✓	✓	Polk-Clement Directory Co. Inc.,

North Pearl 1960



COMPANY, INC. CONSTRUCTION SUPPLY

PEARL—Contd
Byers Bldg—Contd
3d fl△Natl Screen Service Corp (br) theatre supplies
4th fl△Clark Serv Inc film distrs
Waldman Films Inc (br) distr
5th fl△United Artists Corp film distributors
△Allied Artists Distributing Corp motion pictures
6th fl Vacant
512△Youthtime Evangelism Fellowship Inc

W Tupper intersects

17

PEARL N—From 620 Virginia north to North

1△Stadlinger Henry E ⓪ phys
5△Coleman Thos ⓪
6△Siegfried Constn Co Inc contrs
9△Ball Anna L ⓪ furn rms
12△Schwartz Karl A ⓪
16△Seneca Harry S ⓪
VanAurmen Leland Y
17△Theodorides Athan R
Virvilli Theo
18△Paulsen Henry
Grann Anna ⓪
△Drake Mabel Mrs
19△Lockhart Geo A ⓪
20△Goerger Grace L Mrs ⓪
21△Bell Chas B ⓪
22△McConville John C ⓪
25△Schultz Jos B
△Hillbrecht Emma Mrs
Puttick John
28△Miller Robt L ⓪ furn rms
M & J Moving & Carting Service
29△Marcilliott Wm R furn rms
30△Wooley Chas J ⓪
33△Reed Dena A furn rms
34△Mueller Marie Mrs ⓪
35△Brown Frank ⓪
38△Norton Anna M Mrs ⓪
39△Eggett Harry J
40 Compton John S ⓪
△Huitfeldt Geo W
44-46△Ardmore Apts
1 Vacant
2△Gilbert Florence
4△Green Donald
5△Russell Theo D
21△Scott Luella B Mrs
22△Warsaw Ella
24 Siden Lillian
25△Howard Roberta
26△MacAllister Doris I
28 No return
31△Byrd Marie A Mrs
32 Vacant
34 Malone David
35△Smolnesky Sandra B
36△Bryce Mary L
38 Klein Helmut
41△Slavikova Celia
42△Masternak Carol
44△Hart Berard P
45△Hogan Geo V
46 Sinats Mercedes
48△Edelhauser Christine
47△Stainton Edna ⓪
48△Perry Minnie Mrs ⓪ furn rms
49△Deliganes Mary P Mrs ⓪
Kuhar Stejepan
rear△Kloppe Viola E Mrs
51△Knaggs Wm C ⓪
52△Giddings Harry W
55△Klein Louis ⓪
56△Cherry Ann Mrs
57△Raymond Ralph
58△Clark Dollie Mrs furnished rms
62△Blake Kath T Mrs ⓪
70△Smith Arth J ⓪ phys
72△Anderson John
rear Carlile Lawrence
74△Lieb Norman F
75 Vacant
82△Hanson Kenneth A ⓪
84△Snell Jennie B Mrs ⓪
85 Gallo Henry J
Gyrha Emma Mrs
△Gaul Thos J ⓪
89△Heineman Eliz G Mrs
Platt Anthony
Burnett Phyllis Mrs
△Ritch Roderick M
Newman Gerald
90 **Apartments**
1△Myers Alice Mrs
2 Inda Rita Mrs
3 Totora Marie Mrs
4 Vacant
5 Gordón Agnes A
6 Williams Marjorie C Mrs
7 Sheehan Raymond E
8△Hooley John V
9 Vacant
10△Syracuse Mary
11△Davis Irene M

Allen intersects

101 Fairmount Apts
10 Levin Ruth C Mrs
11 Gust Anthony
12△Andrews Lee S
14△Warneck Oscar
15△Sluga Julia C
16△Hull Helen M
20 Sandberg Birdie A
21 Vacant
22 Rieder Jos M
23 Sneal Geo
24 Vacant
25△Benjamin Isabelle M
26 Lapins Lorraine Mrs
27△Hanavan Monica
28 Donnelly Frank
29△Pilot Martin
29a Rothmann Arth
30△Faner Clarence H
31 Klank Jos
32 Vacant
33 McCommons Ruth
34 Havila Betty
35 Schubbe Eleanor
36△Donahue John F
37△Cullen Edwin A
38△Spitler Charlotte A Mrs
39a△Tighe Lulu S

Street continued

110△Rockefeller Francis M Mrs ⓪
111△Viale Louis C ⓪
114△White Margt H Mrs ⓪
115△Chicoine Jas E ⓪
△Ogilvie Eliz
116△Lakeman Jos ⓪
120△Dennison Precision Products
△DiStefano Vincent S
△Buckner Emmitt R
121 Salvation Army (Pearl st ent)
122△Fairbanks Ray W ⓪
124△Bay Robt J
126△Rogan Gerald F ⓪
Greene Karilyn
134 **Apartments**
3 Vacant
5△Sutton Jennie Mrs
6 Boldeinski John jr
7 Barden Evelyn
8 Vacant
9 Josephte John
10△Reeb Arth J

Street continued

135△Tomaselli Dominick
136 **Apartments**
1△Hamed Edw
2 Maxwell Jas
3△Brown Chas W
4△McDowell Wm

Street continued

139△Sciortino John
140 Arnold Ethel L
△Owcarz Jos ⓪
141 Vacant
142△Szymanski John J
Hoffman John J
143△Chudik Martin W
146△Thomas Philipp
147△Beuche Eliz A Mrs
149△Platt Mary Mrs ⓪
150△Hammond Bertha Mrs furn rms
151 Vacant
154 Muzevic Hilda
△LaButis Victor E
156 Arden Steph
△Voiteshuk Nicholas ⓪
△Kapsuris Nicholas
157△Peck Vivian S Mrs ⓪
Sperling Carl
158△Danhauser John L ⓪
Nelson Harry R ⓪
160△Stahl Jos ⓪
163 Keulakis Karah
Sullivan Jas
164 Wilson Walter H ⓪
△Wilson Esther M
Mrs beauty shop
174△DeYoe Irene
176△Ward Mildred Mrs
178△Way Florence M Mrs
180△Thorpe Iva M Mrs ⓪ furn rms
182△Hurrell Minnie W Mrs ⓪
Holliday Wm
187 Zapf Nelson J

North intersects

88

PECK — From Amity north to 1413 Broadway

Grimes ends

18△Swiecicki Eug R
△Korba Stanley J
26△Gurbacki Frank ⓪
Suszka Frances Mrs
30△Przywara Richd
△Gruszecki Louis ⓪
32△Zdrojewski Sophie Mrs ⓪
△Zdrojewski Jerome
36△Ratajczak Edw G ⓪
△Schmied Donald E
38△Piwko Alex ⓪
△Jablonski Frank X
△Fuglewicz Anthony
42 Macierowski Veronica
△Lagowski Chester ⓪
44△Lesinski John F ⓪
△Szymkowski Raymond
46△Dobiesz John A ⓪
50△Raczyk Richd R ⓪
56 Pszczolkowski Antoinnette Mrs
64△Napieralski John ⓪
Popadowski Eug E
66△Pilecki John ⓪
Kurczaba Walter
68 Trombley Edw
△Bogdan Henry L
rear Dragan Jos J
70△Dombkiewicz Jos ⓪
Lewandowski Richd
74△Zacklewicz Stanley gro
△Kostrzycki Danl G
rear△Polcyn Steph

Ashley intersects

82△Jaeger Michl J
△Boguszewski Anthony
84△Brzostowicz Lottie P Mrs ⓪
△Gryta Matthew J ⓪
86△Czechowski Frank J
△Jankowski John J ⓪
88△Zdoncer Anthony J ⓪
Redlinski Chester F
90△Pulkownik Stella N Mrs ⓪
△Czarnecki Leo A
92△Nowak Steph E ⓪
Nowak Apolonia
100 Ciechanski Rose K Mrs ⓪
△Wasielewski Ray
104△Zaremba Chester ⓪
106△Orlowski Walter B ⓪
108△Chmielewski John ⓪
Chmielewski Edw J
110△Kalisz Leon L ⓪
△Koscielny Bronislaus
111 Jarzyniecki Edw
112 Czechowski Jos
△Snusz Alex
△Escavage Lillian C ⓪
114△Voss Frank W ⓪
115△Jakubowicz Thaddeus
116△Koscielny Bronislaus E ⓪
117△Murawski Steph A ⓪
119△Wilaszek Irene T
120 Lew Eug B ⓪
△Stachowski Bertha Mrs
121△Bembenista Anthony ⓪
△Herniman John
123△Borowski Matthew B ⓪
126△Szymankiewicz Ignatius ⓪
△Moskal Peter E
129△Michalak Helen Mrs ⓪
△Cebulski Ernest
130△Kalinowski Sophie Mrs ⓪
132△Siejak Adam J ⓪
△Cobel Milton
△Zaborowski Edw
133△Wawrzyniak Florence Mrs ⓪
△Fazzio Richd A
135△Borowicz Henry
△Kajdasz Stanley ⓪

Broadway intersects

24

PECKHAM — From 465 Jefferson av east to Memorial dr

12 Robinson Della
△Cathey Julius jr
△Cathey Elvira Mrs ⓪
13△Johnson Benj
△Walker Mattie Mrs
reaar△King Geo L
15△Am Metal & Waste Co Wiseman E
16△James Archer S ⓪
20△Martin Emmie Mrs
21△Musellam Yahyad ⓪
△Peckham Poultry Mkt
Kelly Lillian
24△Tens Park Mkt gro
△Harold Walter J
△Harold Alvin V

Madison intersects

31△Blenman Lloyd
△Ramsey's Beauty Salon
Len's Mkt
32△Morton Jas M ⓪ tailor
rear Herd Jas
33△Guyton Isaiah H barber
34△McCray Eliza Mrs
△Allen Prayer J
△Cummings Debvis R Mrs
36 Vacant
37 Cody Edw
Rodgers Willie J
40△Dawkins Dora
Lambert Victoria Rev
△Williams Geo
41△Sims Jas
rear Williams Mary L
42△Moore Jannie A Mrs
△McGarrah Audrey O Mrs
rear Marks Rosetta
43△Robinson Louis
rear Baxlow David
△Lewis Ora L Mrs
44△Fluitt Wm ⓪
Pritchell Andrew
△Davis Tommie L
45△Archie James W
Freeman Jennie Mrs
46△Simpson John H ⓪
Campbell Mazel
51△Thompson S L
rear Glenn Robt R
52△Lou's Delicatessen
△Peoples King
Spigner Willie A
rear△Palmer Lee
Conner Johnnie M

Monroe intersects

59△London Dry Clng & Dyeing Co Inc
60△Knight Allen
64 New Macedonia Church of God
Bowman Morris L Rev
66△Miller Jas ⓪
△Gadson Robt
△Knight Herschel jr
rear△Perry Will
67 London Launderite
68△Thomas Isabelle R Mrs
Fletcher King
rear Fisher Jas
69△Holley Wm C
△Williams Sarah Mrs
△Merrill Ora Mrs
71△Crumpp Girtley
Duncan John H
75 Belle's Beauty Shop
Hills Mildred Mrs
rear△Grant Jos
79△Toplin Jack gro
△Clark John
△Patrick Fredk R
ne cor StStephen's Evangelical & Reformed Ch

Adams intersects

88△Bookbinder Louis gro
△Jefferies Jessie Mrs
89 Rieger Louis S
△Spencer Benj
91 Vacant
92 Harris Ella Mrs
93 Green Elliott
△Ford Alice N Mrs
△Wadley Wm
△Morrison Saml
Morrison's Delicatessen
94 Brown Willie
Cole Ida Mrs
94 Wilson Henrietta
95 Ellis Mary Mrs ⓪
96△Mitchell Arth
△Holmes Edw I
97△Garrett Homer
Dulin Ellen O Mrs ⓪
rear Jones Curtis
98△Turner Paul R
100△Hawton Otis
101△McElroy John ⓪
103△Jackson Ida O Mrs ⓪
Nesby Annie B Mrs
△Snead David V
103 East Side Garage auto repr
107△Price's Gro
△Pope Wm
△Tarpley Estelle M Mrs
108 Adams Aurelia Mrs
Jones Sharon V

Watson intersects

116 Benton Thos
117 Wiggins Harold
△Price Maggie L Mrs ⓪
More Jessie Mrs
McGriff Diane Mrs
△Kenner Henry
123△McGriff Margt Mrs ⓪
124△Blackwell Eliz Mrs
△James Anita
125△Ballard Jas ⓪
129△South Sterling L
△Clark Emma J Mrs
Lewis Asbery B
133△Matthews Henry C
Whitson Sim
△Williams Julius
137 All Nations House of Prayer Church of God In Christ

34

Emslie intersects

145 Bradley Allie
146 Cimo Mary Mrs gro
△Wilson Follie
△Lapsy Belle Mrs
147 Vacant
149△Hall Fran
Wyatt Adolph
150△Lackey Jas
153△Ryerse Rigging Co trucking
154△Todd Luther ⓪
White Willie
156△Allen Robt B
162△Avent Thos G
166△Poole Raymond
△Cooper Margt
Rhone Wm M

Krettner intersects

173△Derkits Jos F ⓪ restr
175△Kopp Frank ⓪ delicatessen
△Kestner Eliz Mrs
Moll Eliz
179△Coleman Emma M
△Mumm Theo H
181△Buettner Mary Mrs ⓪
△Harlach Arth
△Wood Lester C

PECKHAM—Contd
183 Nowascil Conrad ⓪
185△Mowbray Martha Mrs
△Rose Clara L ⓪
187△Engerer Arth H ⓪
191 Nagy Vincent
Misiak Nicholas
△Bowe Edw

Sherman intersects

199△Klein Dorothy
Colin Louise
△Baldo Joseph
△Kulikowski Wesley
201△Rutecke Helen Mrs
△Grinker Charlotte Mrs
205 Twardzik Marie Mrs
Bolden Wm E
207△Vogel Theresa Mrs ⓪
211 Perry Jeanette M Mrs
212△Succop Walter E Rev
213△Green Robt ⓪
215 Fandl Edw
△Meeks Christina S Mrs ⓪ confr
△Fandl Theresa Mrs
△Ambrose Victor V
216△Jones Sterling ⓪
Jones Wm
217△Sliwa John
△Wierzynski Bernard J
△Kowalski Adam
218 White Rock Baptist Church Inc
218 Washington Booker T

Stanton intersects

227△Kencik Raymond
Brady Herbert
Long Anna Mrs
228△Dixon John
△McMillam Geo L
△Bell Albert
△Zimmerman Stella
229△Kujawa Frances Mrs
Cizar Mary Mrs
230△Bolden Scipio J
Bush Robt ⓪
231△Spako Michl barber
△Washington Thos E
△Gioia Saml
232 Hatch Frazer
Pannell Beverly
Washington Rosa Mrs
234△Nowaczewski Edw ⓪
△Skomski Florian
235△Kliester Bronislaus J jr
△Giermek John
238 Korczykowski Madaline Mrs
△Michalik Edw
△Linse Christian A
239△Mojchrzak Danl A
△Kubas John G
rear△Zukowski Frances Mrs
240△Walczak Anna Mrs
△Wroblewski Alex F ⓪
241 Kolaczek Martin
Bednarek Mieczyslaw
242△Skowronski Steph F
Skowronski Anthony ⓪
243 Kowalik Ignacy
△Miltenberger Robt J
250△Metzger Wm
△Sienkiewicz Walter ⓪ gro
Rozalski Alphonse

Shumway intersects

254△Harry's Little Casino restr
△Popielski Harry ⓪
Gulczewski Sophie Mrs
255 Sabala Damian
△Zulawksi Sylvester ⓪
Ruszkowski Jos
rear Nadolski Walter
257△Zulawski Sylvester A
△Surdej Brownie
258 Jernatowski Michl J
△Zulawski Henry N
259△Keenan Brian N
260 Kendziora Ida Mrs ⓪
△Liszkiewicz Chester
261 Bulchak John
△Andrejewski Frank
△Singer Cath Mrs
263 Zarczynski Felix ⓪
Kowalczyk Jos
Zarczynski Adam ⓪
264△Lisinski Anthony C
Poborczak Richd A
265 Vacant
Marek Stanley ⓪
266△Jernatowski Agatha Mrs ⓪
△Rusek Bronislaus
267 Sroka Wm
△Strazynski Albert ⓪
268 Czajka Zygmund ⓪
Kowalski Zenon
269△Barnett Robt ⓪
△Smith Ashberry B
△Chestnut Eloise Mrs
Chambers Limmie
270△Czerny Stanley jr
Kania John
271△Mentel's Shorty restr
△Mental Theo J ⓪
△Zakrzewski Frank
272 Chiohocki Chester
△Beszczynski John J
△Evening Star Tavern

Smith intersects

281 Dampkiewicz Edw
△Klimek Walter B tailor ⓪

ST LOUIS PL 1960

ST LAWRENCE AV—Contd
446△Pokladowski Andrew E ⓪
449△Hoock Wm N jr ⓪
452△Sperazz Dominic J ⓪
455△Straining Elmer C ⓪
456△Lee Thos E ⓪
459△Stein Louis ⓪
460△Osvath Steph J ⓪
465△Toma James J ⓪
469△Maxick Jos ⓪
473△Keen Arth N
477△Alt Robt M ⓪
481△Maxick Lawrence ⓪
487△Partyka Casimer L ⓪
491△Miniszewski Sigmund J ⓪
495△Gailitis Peteris
499△Palmer Robt H ⓪
Delany av begins
Campbell av begins
Duluth av begins
Gunnell av begins
Redmond av begins
Harvest av begins
Newport av begins
Coburg begins
503△Thorp Harry L ⓪
507△Bartz Walter F ⓪
508△Ruper Earl D ⓪
511△Braum Carlton F ⓪
512△Strunk DeForest A ⓪
515△Huttner Maximilian I ⓪
516△Conroy Lawrence O ⓪
519△Lobuzzetta Geo R ⓪
523△Rosenburg Chas W ⓪
531△Schuller Bernard M ⓪
532△Mooney Vincent D ⓪
536△Bartolotta Chas ⓪
537△Crowley Harry F ⓪
540△Delo Wallace E ⓪
541△Miller Alf W ⓪
545△Grasse Bruno J ⓪
546△Muth Cath M ⓪
551△Bradley Jessie W Mrs ⓪
554△Giller Nathan ⓪
△Ressue Gordon
555△Zebold Hazel M Mrs
△Beck J Fredk ⓪
561O'Connor Mildred Mrs ⓪
△Simme John W
564△Beck Francis C ⓪
△Fadale Vincent E
565△Richmond Harold ⓪
568△Dentinger Fred R ⓪
△Dentinger Marie A Mrs
569△Briandi John R ⓪
574△Doan Edwin C ⓪
577△Rossenbach Chas F ⓪
580△Schmidle Wilbur J ⓪
581△Huber Max ⓪
584△Urban Geo M ⓪
585△Schrader Clyde J ⓪
591△Grundner Melvin ⓪
595△Reynolds Edwin F ⓪
596△Lasher Douglas M ⓪
599△Dowd Danl J ⓪
DL&WRR overpass
600△Whinihan Paul K
604△Steger John J ⓪
605△Frank Earl W ⓪
608△Michie Wm F ⓪
609△DeWald Harold ⓪
612△Clinch Harry T ⓪
615△Bond Wm ⓪
616△Powers Gerald F ⓪
619△Schneider Kenneth R ⓪
620△Peterson Helen F Mrs ⓪
623△Sturman Frank S ⓪
627△Kilian Carl A ⓪
631△Holch John W ⓪
635△Wood Harvey E ⓪
639△White Donald G ⓪
643△Whitlock Norris C ⓪
649△Prosperi Chas S ⓪
653△Yeates Thos G ⓪
659△Milette Erwin J ⓪
663△Meredith Wm E ⓪
669△Adamczyk Edw ⓪
672 **Apartments**
1△Foody Lila M
2△Breene Arth
3△Coughlin Francis D
4△Collard Louis G
Street continued
703△Shumaker Gerhardt
△Felstein Nathan
705△Barr Victor
709△Shine Harriett Mrs
Vacant
711△Kostacos Paul N
719△Lucas Wayne ⓪
723△Krebs Wilfred J ⓪
729△Brownell Mary M ⓪,
△Mulvey Edw G
733△Lyon Richd I ⓪
737△Horwitz Benj M
741△Schuller Mary Mrs ⓪
745△Tomasulo James W ⓪
749△Stern Martin R ⓪
755 Sacha Mary Mrs ⓪
756△Public School No 86
759△Rola Chester A ⓪
763 No return
767△Shapiro Paul I ⓪
773△Bass Meyer M ⓪
777△Shea Edw S ⓪
781△Sadoff David D ⓪
785△Beauregard Paul R ⓪
789△Laufer Marvin ⓪
795△Lorenz Raymond ⓪
799△Artistic Decorators Inc contr
△Militello Salvatore ⓪
803△Kienzle Robt C ⓪
807△Treppper Wm J ⓪
811△Kellerman Norman C ⓪
817△Thayer Robt A ⓪
821△Klein Alf J ⓪
825△Slatter Hubert ⓪
829△Gafter Ray ⓪
833△Jadd Jos S

100
ST LOUIS AV — From 280 Walden av north to Genesee
13△Smietka Jos ⓪
△Steward Robt Narloch Stanley A ⓪
18△Bojanowski Anna Mrs ⓪
△Nosbisch Arth M
19△Makowiecki Anastasia Mrs ⓪
△Netzel John W
20△Beutel Henry P Panas Vincent ⓪
21△Dorobiala Mary Mrs ⓪
△Madej Leo
22△Grzegorczak Victor J
△Darner Anna M Mrs Schuman Frieda
24△Paja John F ⓪
△Wernicki Alphonse S
25 Szyller Mary Mrs ⓪
△Kwiatowski Mathew W
26△Kupkowski Felix
△Mostkowski Olga Mrs ⓪
27△Koperski Antoinette Mrs
△Sadowski Stanley F
△Ladowski Edmond J ⓪
31△Bradley Jos A Szczecinska Rose Mrs ⓪
△Marguis Vance J
35△Wheeler Chas H
△Lyons Arth F
36△Winiecki Valentine A ⓪
△Winiecki Vincent E pntr
37△Szpakowski Eug
△Kaczorowski Henry
38△Gorski Felix ⓪
△Ladowski Stanley J
41△Fronczak Casimer L
△Wisniewski Eug R ⓪
△Wisniewski Rose Mrs
42 Maskowski Alice Mrs
△Helminiak Stanley ⓪
43△Fronckowiak Edw J ⓪
44△Tucholski Bernard ⓪
47 Woidan Agnes Mrs ⓪
△Budniewski Eug R
48△Wojnowski Arth
49△Pacholski John C ⓪
50△Polanowski Walter J ⓪
△Latawski Chester
52△Zubricky Wendell J ⓪
△Golimowski Chester F
54 Kakol Jos ⓪
△Rybarczyk Helen M Mrs
55△Tarlowski Mary Mrs ⓪ gro
Woloszy Chester
△Helminiak Stenley ⓪
60△Mazgajewski Josephine Mrs ⓪
△Konarski Walter N
61△Hoinacki Anna Mrs ⓪
△Macaruso Thos
62△Parker Leonard C
△Janson Richd J ⓪
63△Bzibziak Anna Mrs ⓪
65△Karnyski Anthony F
△Karnyski Frank ⓪
66 Uba Stanley ⓪
△Uba Stanley jr
67△Michalski Theo J
△Siedlecki Zygmunt
68△Bierdron Alex F ⓪
71△Nowacki Roman L ⓪
△Niewczyk Steph F
72△Siewierski Julia Mrs ⓪
△Morcio Frank P
74△Ruda John F ⓪
Grelewicz Richd E
77△Napieralski Leon R ⓪
78△Jankowski John M ⓪
△Golinski John W
80 Baginski Henry jr
△Baginski Henry H ⓪
81△Kaczmarek Anthony ⓪
84△Magiera Robt C ⓪
Pawlowski Anna Mrs
85△Piewinski Bruno L
△Schwartz Walter W
86△Strzelec Michl L ⓪
△Dolan Michl G
88△Coric Saban
△Kielar Stella L
89△Losin Florence M
△Klosinski John R ⓪
91△Cialone Robt
△Nisnik Eug J
92△Kompinski Thaddeus J ⓪
93 Pawlowski Bronislaw ⓪
Czechowski Jos J
96△Waleszczak Norman
97△Jenson Norbert J
△Czajka Edmund J ⓪
98△Szuminska Bertha M ⓪
△Mruk Wm S
△Lorence Virginia Mrs
101△Krawczyk Bernard ⓪
△Bicz Edw J
102△Kubera John S ⓪
103△Herkey LeRoy E
△Loepere Clinton C
△Kohl Dorothy Mrs
△Luebke Fritz F
106△Carey Rodney A Swietniewski Frances Mrs ⓪
108△Kancelarczyk Rose Mrs ⓪
△Wachowiak Edw J
109△Cicatello Genaro J
△Kreiger Herbert F
△McQueen Lillian
110△Baczkowski Henry ⓪
111△Matuszewski Laura Mrs
113 Neubig Barbara Mrs ⓪
△Felder Clarence J
115△Zamrok John A ⓪
116-20△Becht Sht Mtl Wks
△Fisher Nicholas acct
△Rosen Roofing Co Inc
119△Ostrowski Mary A Mrs ⓪
△Thompson Donald R
122△Walkowiak Chester J ⓪
126△Neubig Anthony
△Farnham Arlon E ⓪
127△Martin Frank F ⓪
128△Mays Edward J ⓪
129△Glinski Sally G ⓪
△Widmaier Richd G
131△Pirog Leo ⓪
△Malicki Edw S
134△Nagl Andrew F ⓪
135△Olszewski Stanley ⓪
136△Choinski Florence
△Kaminski Jos B ⓪
137△Grimmer Mary M ⓪
△Grimmer Frank J
138△Wuest Albert C ⓪
140 Vacant
143△Butzek Victor F ⓪
145△Copperberg Lucille L Mrs ⓪
147△Choinski Edmund A ⓪
△Choinski Richd E
Genesee intersects

17
ST LOUIS PLACE — North ½ block to 519 Virginia
1△Zeller Louis F
△Essig Albert R
△Greisinger Hattie B Mrs Kelly Morrison
2△Smith Peter F
△Heidenrich Irving C
△Coyle John W
△Uus Lydia Mrs
△Campbell Jas
5△Lincoln Cyrus B
△Gilbert Lottie Mrs
6△IAM Religious Activity
△Ward Chas
10△Rozmus Anthony F Kiesl Jos
△Fox Henry A
△Williams Clara K Mrs
△Lind Walter Federle Reene V Mrs Hall Mildred
12 Tovey Harold E Reeb Albert
△Herger Paul int dec
△Harvey Florence
14 **Apartments**
bsmt Smith Frances M
1 Pagniez Antonin
2△O'Dea Della nurse
3 Spellman Henry
4 Goldberg Coleman
5 Vacant
6△McCracken Regina C Mrs
Street continued
15△Lennon Grace J Mrs Gademske Fred W
17 Vacant
18 **Apartments**
1△Jones John R
2△Hussey Walter S
3△Finnegan Della K Mrs
4△Brigham Arth R
5△Frommer Virginia F
6 Isenberg Blanette
20 **Apartments**
B1△Lauer Beatrice
B2△Accosta Luella Mrs
1△Carvalho Grimaldo G phys
2 Simon Ruth
3 Hill Harriet
4△Behringer Wm C
5△Johnson Harold W
6△Munafo Claudia J
7 Martin Ada Mrs
8△Fruscione Saml
9 Leslie Noreen
10 Freitag Martha
11△Nolan Julia
12 Reid Anna
Virginia intersects

105
ST MARGARET'S COURT — North ½ block to 20 Colton dr
1△Kulat Sophia L ⓪
2△Myers John W ⓪
5△Elsheimer E Raleigh ⓪
6△Hill Willis H ⓪
9△McCarthy Harry F ⓪
10△Crissy Roy W ⓪
15△O'Brien Frank J ⓪
16△McGowan Wm G ⓪
19△Hurst Thos ⓪
20△Blais Robt H ⓪
Colton dr intersects

56
ST MARTIN'S PLACE — From Turner av north to Britt av, 1 east of Abbott rd
4△Reynolds Loren G ⓪
8△Masterson Geo E ⓪
12△Winkler Howard A ⓪
18△Domras Robt A ⓪
22△Eigenbrod Geo J ⓪
26△Korzelius Eug L ⓪
Britt av begins

102
ST MARY'S ROAD — From 375 Walden av north to Doat
10△Dressel Donald A ⓪
14△Mann Eug A ⓪
△Myers Alf R
17△Bakowski Stanley J ⓪
△Jankowski Charlotte J
21△Ciolczak Louis F
24△Nowakowski Peter J ⓪
26△Frier Bertha Mrs Tomczak Frank ⓪
27△Jankowski Chester J
△Machtel Leonard J
30 Duszkiewicz Kath L Mrs ⓪
△Kowalski Thaddeus J
31△Dukiet Sigmond B ⓪
32△Trzcinski Thaddeus ⓪
△Becker Paul I
35△Domino Rosea Mrs ⓪
36 Zelakiewicz Frances Mrs ⓪
△Zeller Roman T
39△Klamut Helen Mrs ⓪
40△Witkowski Matthew J ⓪
41△Lewanski Jos R ⓪
44△Skirorski Mary V Mrs ⓪
Sklorski Theresa drsmkr
45△Dolan Henry T
△Zolnowski Leo A ⓪
48△Kuchta Stanley F
49△Nowak Stanley ⓪
△Nagorski Frank
50△Dobaj John ⓪
53△Jedrzejiwski Anthony F
54△Brick Peter H ⓪
57△Evans Raymond W
58△Kubalak Walter E ⓪
59△Andrzeyewski Rose Mrs ⓪
△Malinski John A
60△Mosakowski Felix ⓪
63△Rydza Roman J ⓪
△Rydza Donald J
64 Jarzyniecki Mich S Jarzyniecki Richd R ⓪
67△Gawel Edw W ⓪
68△Sodo Kath Mrs ⓪ Twardowski Edwin F
72△Olszewski Francis W ⓪
72△Jarocki Peter ⓪
73△Pietrzak Matthew ⓪
74△Jushewicz Alan J
△Murszewski Casimer ⓪
77△Slawinski Jos A ⓪
85△Radziwon Edw C
△Kuklin Walter L ⓪
86 Sacilowski John F ⓪
△Skowron Henry F
Felix pl begins
88△Mazur John A ⓪
91△Snuszka Edw I ⓪
92△Pyszczynski John J
△Piotrowski Lottie Mrs ⓪
95 Wojciechowski Mary Mrs ⓪
△Romanowski Leonard
96△Bojanek Jos ⓪
99△O'Dre Stanley W
100△Kale Norman F ⓪
101△Jendrasiak Ignatius ⓪
△Syrek Paul P
102△Kobee Albert E
△Saracki Mary M Mrs ⓪
105△Bauer Stanley J ⓪
106△Kantowski Edwin L ⓪
109△Wind Jennie Mrs ⓪
110△Kasprzak Edw L ⓪
△Stephan Joan B Mrs
111△Jankowski Regina ⓪ Mrs ⓪
△Krause Arth T
114△Padak John F ⓪
115△Fronczak Mary H Mrs ⓪
116△Jankowski Danl S ⓪
119△Glowacki C A
120△Dzielinski Edw ⓪
123△Wegrynowski Stanley J ⓪
124 Vacant
127△Przybl John J ⓪
Galas Victoria Mrs ⓪
Galas Barbara
128△Schultz Walter F ⓪
Doat intersects

2815
ST MICHAEL PLACE — From Washington east to Ellicott, 1 south of E Tupper
Ellicott intersects

140
ST PAUL — From 1081 Main, east to Welmont pl
19△Pickert Gerard K ⓪
21 Romanello Danl Jimerson Laura B
△Striegel Geo E ⓪
23△Henderson Chas E ⓪
27△VanTassell Caroline Mrs ⓪
29 Perry Elmer
30△Halpin Janice M
△Noonan Maurice J ⓪
31△Danglis Chas ⓪
△Aldrich Harry D
32△Salter Marie C ⓪
△Butler John J
33△Swartz Wm J ⓪
△Malette Marie
35△Santoro Margt M Mrs ⓪ Hore Lawrence M
36△McDonough Eliz F Mrs ⓪
△McDonough Thos C phys
Titus Henry J
38△Laubisch Arth ⓪
△Kearney Leo J
39△Faller Florence M
△Hill Chester ⓪
41△Rowe Jas ⓪
△Manning Wm J
42△Kennedy Lillian F Mrs ⓪
43△Camuza Anthony ⓪
△Goldfinger Phillip
43△Camuza Anthony ⓪
46 Wolf Raymond A ⓪
47△Goetz John B
△Wooden Anna C Mrs
48 Vacant
49△Rogers Danl R
△Eron Harry ⓪
52△Clucas Plumbing Corp
Ellicott intersects
67 Lamm Ora O'Connor Mayme A Mrs
69 Kirchner Henry L
71△Hoffman Edw L ⓪ Jones Jennie Mrs
72 Berry Willie J
73△Taylor Violet H ⓪
Welmont pl intersects

72
ST STANISLAUS PLACE — From Buffalo River north to Seward, 1 east of S Ogden (not open)
Seward intersects (not open)

4
ST STEPHEN'S PLACE — From Harvey pl south east to Smith and Northeast to 900 South Park av
Bolton pl begins
Smith intersects
16△Nicoll Francis C ⓪
18△Kosicky Wm ⓪
19△Brady John R ⓪
20△Durkin Thos J ⓪
△Gattie Marion D Mrs
22△Callahan Nelson M ⓪
23△Proudman John
24△Klud John L
25△Sonberg Robt C ⓪
26 Rusek Leonard F
28△Szarpa Angeline Mrs ⓪ Regula Richd E
29△Lacy Shirley Mrs ⓪
30△Balko Jos
31△Dorman Roger E
32△Downs Alice Mrs
33 Vacant
34 Cavanaugh Wm ⓪
38 Zamrock Frank C ⓪
39△McCarthy Michl
△Kiebzak Jos J ⓪
40△Vallee Louis J ⓪
41△Klestinec Emro ⓪
42△Osika John J
43△Wirth Cath ⓪
44△Reed Leslie W ⓪
46 Scott Russell G
47 Freer Virgil L Brickner Alf J
rear△Boryszewski Vincent F
49△Veiders Victor E ⓪
52△Greaves John R ⓪
53△Chludzinski Jos ⓪ Magrath Louis K
55 Granviller John A ⓪
South Park av intersects

62
SALEM — From 500 Abbott rd northeast to South Legion dr
16 South Buffalo Tabernacle
20△Regan Edw J ⓪ funeral dir
21△Richard Julius D'Amico Martin F
△Matheson John
23△Edinger Howard P ⓪
24△Patton Jas M ⓪
△Potter Cath R Mrs
25△Deubell Robt E
△Lauth Cletus G ⓪
27△Fabian Frank J ⓪
28△Wilson Hugh J ⓪
△Healy Isabelle M Mrs

HOWARD A. CLARK Licensed Mortgage Loan Co

1697 MAIN ST. "A Quarter Century of Specialization" PHONE GA. 4121

PEARL—Contd
Two Ten Pearl St Bldg—Contd
207△County Dept of Social Welfare (Central Record Rm)
208-09△Petersen Beauty Salon
3d fl△County Dept of Social Welfare (Hosp Medical Div)
County Dept of Social Welfare (dental div)
△County Dept of Social Welfare (Relief Recovery Div)
4th fl△Erie County Dept of Social Welfare (Child Welfare Services)
5th fl County Dept of Social Welfare (waiting rooms)
6th fl△Dept of Social Welfare (waiting rms and ofcs)
7th fl△County Dept of Social Welfare (Central Accounting Div)
△County Dept of Social Welfare (Relief Recovery Div)
8th fl△County Dept of Social Welfare (Resource Div)
△County Dept of Social Welfare (Dental Div)
807△County Dept of Social Welfare (admn ofcs)
905-06△County Personnel Ofc
10th fl△County Comptroller
Street continued
212△Alberts Carl A travel bureau
214△Fogel Hyman J & Son Ins
216△Strauss Carl H jwlr
218△Shaddock Wm E Inc ins
Express al begins
222△Docket The restr
226-28 Hanna Garage Co of NY Ltd auto parking
Court intersects
Omaha al begins
258-64 Western Sav Bank (parking lot)
△Bloom Saml Inc tailor
266 Building
△New York Fire Ins Rating Organization
△Goldman Saml acct
△Michaels & Reed Inc ins
△Michaels R W Agcy Inc ins
3d fl Vacant
4th fl△Donnelly Reuben H Corp adv
Rooms:
500△Gallivan Richd S lwyr
△Trimper & Conroy lwyrs
510 Kahn Arnold lwyr
△Powsner & Perlmuter lwyrs
520△Maisel B lwyr
△Cohen & Lombardo lwyrs
Street continued
267△Besser's Inc stationers
268 Cairone Russell barber
272-86 Internal Rev Bureau (side ent)
W Mohawk intersects
1-88
W Genesee intersects
308-10△Genesee Hotel
312△Genesee Motoramp Garage
314△Brock Max liquors
318 Adytum Chapter No 235 (R&M)
△Bflo Keystone Council No 17 (R&SM)
Lodge of the Ancient Land Marks No 441 (F&AM)
320△Bflo Consistory SPRS Bflo Consistory SPRA and Co-Ordinate Bodies
△Palmoni Lodge of Perfection
△Bflo Chapter of Rose Croix (HRDM)
△Palmoni Council Princes of Jerusalem
324-26 Hanna Garage Co of NY Ltd auto parking
330△Orleman & Son piano dlrs
332△Peters H L Inc sporting gds
334 Robbie Parking Lot
340-42△Size Nine Shop women's clo
1-89
W Huron intersects
352 Vacant
360△Homestead Savings & Loan Assn
Rice Jas C
362△Morris Marvin Service auto parking
369△Murphy's Jew Omega Cafe restr
371 O'Tooles (parking lot)
380 No return
380½ △Duquesne Billiard Academy
382△Maroon Grill
384△Club Rocco restr
Myers Pasek
386△Leonardo's Inc restr
386-90 Grotto Bldg
△Grotto Realty Corp
△Mergler Leo V engr
△Wonder Bar restr
△Leonardo's Inc (ofc)
389 Vacant
390△Wonder Bar restr
△Mergler Leo V engr
△Leonardo's Inc (ofc)
391△Gerace Thos S clo clnr
392 Thomasulo Chas J barber
△Bair Marion Mrs
△Barry Edw J
Lamb Gertrude
Kozlowski Richd A
△Gray John J
△McDonald Thos E watch repr
394△Rapid Shoe Repairing Co
396 Keenan Bldg
△Keenan Jas & Sons plmbrs
△Keenan Thos J real est
398△Ley's women's clo
W Chippewa intersects
408 Nasco Bldg (side ent)
(For occupants see 37-39 W Chippewa)
410△Great Lakes Barber Shop
412△Bellanti Philip F shoe repr
416△Bflo Stage Door Inc restr
420-22 Kar Park Service
421△Buffalo Paramount Corp theatre opr
426-28△Allen Floor Covering Co Inc
431△Louis Parking Service
432-40 Mahoney Jas E auto parking
442 Busch Albert G
△McMahon's Cocktail Bar & Lounge
444 MacWilliams Mae Mrs
450 Casa Lorenzo (parking lot)
452△Tzetzo Bros Inc whol tobacco and candy
453△Del's Coffee Shop
454△Casa Lorenzo restr
458△Hanna Garage Co of NY Ltd
470-72△Etherington Geo
478△Witt Frank A auto parking
490△Hotel Monroe
Hotel Monroe Restr
492△Maple Leaf Restr
494△Herman Floyd C
△Wiley Ray
Thomas John
495-503 Mendelson's Associates Inc (parking lot)
496△Eastern Theatre Supply Co Inc
498△Motion Picture Operators Union Local No 233 (IATSE)
500△National Theatre Supply (dlr Natl Simplex Blendworth Inc)
504 Lockwood John
Lunch Box restr
505-09 Byers Bldg
△Columbia Pictures Corp film distributors
1st fl△Perkin's Theatre Supply Inc (br)
2d fl△Republic Pictures Corp (br) film distributors
△Lieser Film Distributing Co
△Natl Screen Service Corp (br) theatre supplies
4th fl△Clark Film Distrs Inc
5th fl△United Artists Corp film distributors
△Allied Artists Film Exchanges Inc
6th fl△RKO Radio Pictures Inc film distributors
△Disney Walt Pictures Inc
△Goldwyn Saml Pictures Inc
512 Vacant
W Tupper intersects
17
PEARL N — From 620 Virginia north to North
1△Stadlinger Henry E ◎ phys
5△Coleman Nelson T ◎
6△Siegfried Construction Co Inc
9△Lang Carrie B Mrs ◎
12△Schwartz Eliz J Mrs ◎
16△Senecal Harry S
17 Vacant
18△Paulsen Henry
Grann Anna ◎
19△Lockhart Geo A ◎
20△Georger Grace L Mrs
21△Bell Chas B
22△McConville John C ◎
25△McHugh Thos F ◎
28△Miller Robt L
29 Simons Jean Mrs
Zaranek John
30△Wooley Chas J
33△Reed Dean A furn rms
34△Mueller Marie Mrs
35 Brown Frank ◎
38△Norton Jas ◎
39△Knox Ruby E ◎
40△Hanson Kenneth A ◎
44-46△Ardmore Apts
1 Bonnin Madeline Mrs
2-3△McCormick Wright
4△Sheridan Agnes D
5-8△Russell Theo D mgr
21 Johnston Mary
22△Warsaw Ella
24△Bortzer Jennie Mrs
25 Galm Edna
26 Gampp Barbara
28△Reszel Paul
31△Byrd Marie A Mrs
32 Sidoti Frank
34 No return
35 Watkins Mary
36△Corbett Jeanette
38△Daniels Delores M
41△Scott Luella B Mrs
42△Nicosea Nicholas
44△Hart Bernard P
45△Damon Jean E
46 Brown Jas
48 Drucker Harold
Street continued
47△Stainton Edna ◎
48△Perry Minnie Mrs furn rms
49△Deliganes Geo ◎
Feichtmayer Arth
51△Knaggs Wm C
52△Giddings Harry W ◎
55△Colley Florence Mrs
56△Kraus Kath E ◎
57-59 Raymond Ralph
58 Henry Eunice L
62△Blake Kathryn T Mrs ◎
70△Smith Arth J phys
71△Krauss Chas F
72△Skelton Geo ◎
74△Dwyer Marie ◎
75△Greenfield Benj
77-81 Vacant
82△Buch Clara Mrs
84△Orr Sarah Mrs ◎
85 Burroughs Sherman H
Gallo Henry
89 Heineman Eliz G Mrs
Santora Saml A
△Kliman Merwin
90 Apartments
1△Dryer Benj F
2△Cavanaugh David F
3 Totora Marie Mrs
4△Link Pauline E Mrs
5△Stejbach Pearl
6 Williams Marjorie C Mrs
7 Sheehan Raymond
8△Hooley John V
9△Cherry Ann
10△Syracuse Mary
11△Robinson Betty
12△Diggs Wm
39
Allen intersects
101 Fairmount Apts
10△Levin Frank R
11△May Edw
12 Livko Martha
14 Livesay Helen
15 Sluga Julia C
16△Hull Helen M
20 Vacant
21 No return
22 No return
23 Vacant
24 Vacant
25△Benjamin Isabelle M
26 Lapins Myra Mrs
27 Slossman Peggy E
Slossman Emma D Mrs
28△Gordon Agnes
29△Jordan Ethel M
29a Carey Susan E
30 Vacant
31 No return
32 No return
33 Vacant
34 Vacant
35△Carstarphen E Thos
36△Donahue John F
37△Cullen Edwin R
38△Caner Clarence
39△Dillon L May
39A△Tighe Lulu S
110△Rockefeller Francis M Mrs ◎
111△Melba Beauty Parlor
△Melba Louis C
Wright Geraldyn Mrs
114△McCarthy Irene J Mrs ◎
115△Chicoine Irene H massage
△Ogilvie Eliz P Mrs
116△Lakeman Jos ◎
120△Mussachio Medio
122△Fairbanks Ray W ◎
124 Vacant
126△Rogan Gerald F ◎
133 Vacant
134 Apartments
5 Smerski Mary
6 Vacant
7 Vacant
8△Sylpeck Jos
9△Butler Geo E
10 Doane Ricki
135△Tomaselli Dominick
136 Apartments
1△Bolger Marion M
2△Hamed Dicksey M Mrs
3△Strayer Chas B
4△Brown Albert J
139 Vacant
140 Arnold Ethel L
△Owcarz Jos ◎
141 Broome Wm R
142△Szymanski Mary Mrs ◎
143 Chudik Martin
146 DeGrace Russell G
147△Beuche Eliz A Mrs
149△Platt Mary Mrs
150 Hammond Claude S ◎
151△Voss Herbert F
154△Nelson Clifford
156△Voiteshuk Nicholas ◎
△Gaynor Geo
157 Chamberlain Wm
158△Danhauser John L ◎
Nicolatos Gus
160△Stahl Jos ◎
163-63½ No return
164△Wilson Walter H ◎
△Wilson Esther Mrs beauty shop
169 StGeorge Ruth
173-75△Wornick Mills (whse)
174 Boldinski John
176△White Sylvia B Mrs
178△Way Florence M
180△Thorpe Iva M Mrs ◎
182△Hurrell Minnie W Mrs
187△Sherwood Stanley D
△Dailey Dorothy H Mrs
North intersects
17
PEARL PL — Changed to St Louis pl
88
PECK—From Amity north to 1413 Broadway
Grimes ends
18△Maciejewski Anthony S
Holenice Anthony ◎
26△Gurbacki Frank ◎
Suszka Walter
30△Gruszecki Louis ◎
Jankowski Walter
32△Brzostowicz Lottie Mrs
△Zdrojewski Sophie Mrs ◎
36 Ratajczak Edw G ◎
38△Piwko Alex ◎
△Jablonski Frank
△Fuglewicz Anthony
42 Macierowski Stella Mrs
△Bet Jane
rear△Stankowski Edw
△Frygman Anthony
44 Lesinski John F ◎
△Glowny Robt E
46△Gostomski John
Klaister Scholastica Mrs ◎
50△Raczyk Richd ◎
56 Pszczolkowski Antoinette Mrs ◎
64△Napieralski John ◎
Napieralski Emil P
66△Pilecki John ◎
Bednarowski Henry
68△Smith Thos
△Bogdan Henry
rear Janik Jos
Bogdan Marion
70△Dombkiewicz Jos ◎
Lewandowski Richd
74 Boguszewski Anthony ◎
Lerczak Henry gro
△Gorney Kasper C
rear Owczarzyk Robt
Ashley intersects
82△Odozynski Stanley ◎
△Murszewski Leon F
84△Odozynski Bertha M Mrs ◎
86△Jankowski John J ◎
88△Zdonczyk Anthony ◎
Redlinski Chester
90△Pulkownik Anthony ◎
Czarnecki Leon
92△Nowak Steph E ◎
△Lazewski Martha Mrs
100 Ciechanski Rose K Mrs ◎
△Wasielewski Raymond
104△Zaremba Chester ◎
Wyzykiewicz Stella Mrs
106△Orlowski Walter B ◎
108 Chmielewski Matthew ◎
Chmielewski Edw J
110△Kalisz Leon L ◎
Kalisz John
111 No return
112 Czechowski Jos
△Snusz Alex
Escavage Lillian C
114△Voss John ◎
115△Frederickson Lyle
△Kozlowski Edw F
116△Koscielny Bronislaus E ◎
117△Murawski Steph A ◎
119 Wilaszek Irene T
Przybylski Stanley J
120 Lew Eug B
Stachowski Louis R
121△Bembenista Anthony ◎
△Pasztaleniec Eliz Mrs
126△Szymankiewicz Ignatius ◎
△Moskal Peter E
129△Michalak Helen Mrs ◎
△Cebulski Ernest
130△Kalinowski Sophie Mrs ◎
132△Siejak Adam J ◎
Cobel Milton
133 Miklas Jos ◎
△Koszuta Leonard T
135 Borowicz Henry
Kajdasz Stanley
Broadway intersects
24
PECKHAM — From 465 Jefferson av east to Lindbergh dr
12△Cathey Julius ◎
Byna Lucille
rear Cathey Julius jr
PECKHAM—Contd
13△Johnson Benj
△Walker Mattie Mrs
rear△King Geo L
15△Am Metal & Waste Co
16△James Archer S ◎
20△Martin Emmie Mrs
Gadley Jas E
21△Musellam Yahyad poultry
24△Cohen Jack gro
△Johnson Mathew
△Harold Walter J
Harold Alvin V
Madison intersects
31△Blenman Lloyd
△Wagner Etta dry gds
△Earl Camilla C Mrs
32 Morton Jas M ◎ tailor
33 Winters Terry N appl repr
△Guyton Isaiah H barber
34△McCray Henry
Allen Prayer
36△Gadley Kenneth
37 Knelp Regina Mrs ◎
40 Williams Martha
△Dawkins Dora
41 Anderson Nathl H
42△Jones Frank
△Moore Jennie A Mrs
rear Surko Efrasina Mrs
43 Hollis Jas
rear Harrington John
44△Fluitt Wm ◎
△Holt Woodrow
rear△Habeeb Shafeeg H
△Davis Tommie L
45△Richardson Walter
△Dowell Elliott
46△Simpson John H ◎
Lewis Robt
51△Jenkins Annette L Mrs
△Miller Yancy
52△Peoples King delicatessen
Spigner Willie A
rear△Childress Joyce Mrs
Booker Juanita Mrs
Monroe intersects
59△London Dry Clng & Dyeing Co Inc
60△Knight Allen
△Wadley Wm
64 New Macedonia Church of God
△Bowman Morris L Rev
66△Miller Jas ◎
△Kendrick Daisy
rear Perry Will
67 London Launderite
68 Workman Danl
△Moss Henry
rear Utz Wm
69 Holley Wm C
Williams Sarah Mrs
71△Crump Girtley
Duncan John H
75△Zera's Beauty Salon
Avent Thos G
rear Grant Jos
79△Toplin Jack gro
△Clark John
Patrick Fredk R
ne cor Stephen's Evangelical & Reformed Ch
Adams intersects
88△Bookbinder Louis gro
△Winters John
89△Mitchell Della
△Rieger Louis S
91△Merritt Milton
rear Vacant
92△Harris June
△Morrison Saml
93△Green Robt delicatessen
rear Figgett Theo
94△Larkins David
△Clark Jack
95 Ellis Jas P
96 Mitchell Arth
△Holmes Sherman ◎
97△Stokes Wm
△McClain Jas C ◎
rear△Mack Thos
98△Turner Paul R
100△Smith Rushie V ◎
101△McElroy John ◎
103△Jackson Ida O Mrs ◎
107△Price Walter L gro
△Pope Wm
△Kennedy Robt
108△East Side Lunch
△Smallwood Geo L
△Deason Garcia F
Wofford Geraldine
Watson intersects
115 Jones Edw
116△Williamson Level
Benton Thos
△Shingles Hazel
△Hood Clyde
117△Lindsay Maggie Mrs
Gilbert Benj
More Jessie Mrs
△Wiggins Jennie L Mrs
118△Mechanics Landry
123 McGriff Margt Mrs ◎
124△Blackwell Eliz Mrs
Londo Clifford
Londo Clifford jr
Londo Nelson
125△Ballard Jas ◎
Jones Clayborne
129△Patti Josephine Mrs
Miller John
Siehler John P
133△Whitson Saml
Broom Thos
Gegenfurtner Franklin
137 All Nations House of Prayer Church of God in Christ

TP	Adjoining	Source
✓	✓	Polk-Clement Directory Co. Inc.,

ST LOUIS PL 1955

ST LAWRENCE AV—Contd
515△Cochran Chas E ◎
516△Appleton Wayne D ◎
519△Tweed Robt G ◎
523△Rosenburg Cath Mrs
531△Garneau Pierre J ◎
532△Mooney Vincent
536△Roberts John W
537△Rubenstein Saml ◎
540△Delo Wallace E
541△Miller Alf W ◎
545△Grasse Bruno J ◎
546△Hildebrant Melburn H ◎
551△Bradley Jos E ◎
554△Miller Robt G
555△Zebold Harry
△Beck Fredk
561△O'Connor Mildred Mrs ◎
△Bomm Jacob J ◎
564△Beck Francis C ◎
△Dirrigl Frank J
565△Richmond Harold ◎
568△Golden Robt M ◎
Dickens Barbara Mrs
569△Petrunyak John ◎
△Briandi John R
574 Doan Edwin C ◎
577△Rossenbach Chas F ◎
580△Schmidle Wilbur J
581△Huber Max ◎
584△Urban Geo M ◎
585△Schrader Clyde J ◎
591△Orcutt M Eliz Mrs ◎
595△Raynolds Edwin F ◎
596△Lasher Douglas M
599△Dowd Danl J ◎
DL&WRR overpass
600△Whinihan Paul ◎
604 Steger John J
605△Frank Earl W ◎
608△Michie Wm F ◎
609△DeWald Harold ◎
612△Wilson Andrew J ◎
615△Bond Wm ◎
616△Powers Gerald F ◎
619△Davis Thos A ◎
620△Peterson Helen F Mrs ◎
623△Sturman Frank S ◎
627△Roth Mortimer ◎
Sabbath Rae Mrs
631△Holch John W
635△Woods Harvey E ◎
639△White Donald G
643△Whitlock Norris C ◎
649△Prosperi Chas S
653△Hirsh Benj ◎
659△Millette Erwin J
663△Schuller Geo E ◎
669△Adamczyk Edw ◎
672△Lentz Robt P
△Breene May Mrs
△Barr Victor
Collard Louis A
719△Lucas Wayne ◎
723 Edelman Alice
Greenbaum Norman
729△Nickles Lillian
733△Lyon Richd I ◎
737△Howitz Benj
741△Sokoloff Harold ◎
Perlon Mina Mrs
745 Thomas Jas
749△Stern Martin P ◎
755△Schilling Richd ◎
756△Public School No 86
759△Hooker Richd ◎
763△Spriegel Clyde L ◎
767 Miles Leon H
773△Bass Meyer M
777△Shea Edw ◎
781△Sadoff David ◎
785△Beauregard Paul R ◎
789△Kaufman Leo ◎
795△Lorenzo Raymond ◎
799△Militello Salvatore
811 Kellerman Norman G
817△Thayer Robt A ◎
821△Schifferle Norman ◎
825△Ryan Eug ◎

100
ST LOUIS AV — From 280 Walden av north to Genesee
13△Palmer Fred J
Piechocki Michalene Mrs ◎
15 Knapik Anna Mrs
Narloch Stanley
18△Bojanowski Adam ◎
△Bjanowski Adam jr
19 Makowiecki Stanley J
Zuber Frank G
20△Beutel Henry P
Pabbis Vincent ◎
21△Koralewska Irene Mrs
△Dorobiala Mary Mrs ◎
22△Taton Chas
Ozimek Henry H
Tucholski Mary F Mrs ◎
24△Paja John F ◎
△Wernicki Alphonse
25 Szyller Mary ◎
26 Kupkowski Felix
△Mostkowski Walter J
27 Koperski Edmund S
△Koperski Antoinette Mrs
Sadowski Stanley F
31 Szczecinska Rose Mrs ◎
△Bigosinski Jos A
35 Wesolowski Stella Mrs
△Bitterman Albert
36△Winiecki Valentine A ◎
△Winiecki Vincent E
37△Piewacki Sylvester J ◎
38△Gorski Felix
△Ladowski Stanley J
41△Fronczak Casimer
△Wisniewski Eug ◎
rear Wisniewski Rose Mrs
42 Helminiak Stanley jr
△Helminiak Stanley ◎
43△Frockowiak Edw ◎
△Najdukiewicz John
44△Tucholski Bernard ◎
△Baryiska Josephine Mrs
47 Wojdan Agnes Mrs ◎
48△Dunaj John S
Bentkowski Fred T
49△Pacholski John C ◎
Pacholski Danl J
50△Polanowski Walter ◎
△Rewers Bernard F bldg contr
Rewers Frank
52△Hruby Adolf
△Zubricky Wendell J ◎
54△Gembala Jos A
△Marciczkiewicz Harry J gro
55△Tarlowski John ◎ gro
Loza Michl
59△Plejda Stanley K ◎
60 Mazgajewski Anthony ◎
Mazgajewski Benj F
61 Hojnacki Alf
△Hojnacki Anna Mrs ◎
62△Janson Adeline
Raczka Chester
63△Mazgajewski Alex ◎
△Nowak Edwin F
65△Karnyski Anthony F
Karnyski Frank
66△Uba Stanley jr
Uba Stanley ◎
67 Korczynski Edw
△Kubera Danl J
68△Biedron Alex F ◎
71△Nowacki Roman L ◎
△Zwinkiewicz Roman
72 Siewierski Julia Mrs ◎
△Morcio Frank P
74△Ruda John F ◎
Greiewicz Richd
77△Napieralski Leon R ◎
78△Jankowski John M ◎
Golinski John W
80△Baginski Henry H ◎
△Olinlewski Walter J
81△Kaczmarek Anthony ◎
Kaczmarek Chester
84△Magiera Robt C ◎
△Palaszewski Dorothy Mrs
85△Piewinski Bruno L
Mack Phillip
86△Strzelec Michl L ◎
△Malachuski Frank
88△Coric Saban
△Winslow Nellie Mrs
89△Klosinski John R ◎
Klosinski John R jr
91△Tasner Louis ◎
Blake Richd A
92 Kompinski Walter ◎
△Kompinski Thaddeus J
93 Pawlowski Brownie ◎
Czechowski Jos J
96 Wujek Edw R
Wujek Martin ◎
97△Jenson Norbert J
△Czajka Edmund J ◎
98△Szuminski Bertha M ◎
Iwinski John
101 Kaczmarek Frank J ◎
△Szymendera Stanley
102△Kubera John S ◎
Kubera Raymond J
103△Herkey LeRoy E
Schneider LaVern H
△Kohl Dorothy Mrs
△Dommell Merle L
106△Carey Rodney
△Swietniewski Frances Mrs ◎
108 Wachowiak Edw J ◎
Kancelarczyk Adam ◎
109△Freiert Clyde R ◎
△Steve Paul
110△Baczkowski Henry ◎
Strusienski Richd ◎
111 Plewinski Mary Mrs ◎
△Krauza Henry H
113 Neubig Barbara Mrs ◎
△Felder Clarence
115△Zamrok John A ◎
116-20△Becht Jos J ◎ sht mtlwkr
119△Ostrowski Michl J ◎
△Gerald Raymond F
122△Walkowiak Chester J ◎
126 Riess Aug
△Farnham Arlon E ◎
127△Martin Frank F ◎
128△Mazgajewski Edmund J ◎
129△Glinski Sarah Mrs
Widmaier Richd
131△Pirog Leo ◎
134 Vacant
135△Olszewski Stanley ◎
136△Kurzawski Stanley E
△Kaminski Jos B ◎
137 Grimmer Mary M ◎
△Grimmer Frank J
138△Wuest Albert J ◎
140 Vacant
143△Butzek Victor F ◎
145△Copperberg Lucille L Mrs ◎
May John A
147△Luterek Leonard L
△Choinski Edmund A ◎
Genesee intersects

17
ST LOUIS PLACE—North ½ block to S19 Virginia
1△Kelly Lintsford L
△Henderson Harriet L Mrs Rev
△Essig Albert R
△Greisinger Hattie B Mrs
2 Smith Peter F
Heidenrich Irving
Sullivan Jas J
Antweiler Frank P
△McSherry Annie Mrs
5△Weiss Adam
Gilbert Lottie Mrs
6△McLean Duncan
9△Lucas Earl
10△Rozmus Anthony F
Dubay Michl
Kiesl Jos
△Fox Henry A
Federle Renee N Mrs
△Williams Clara K Mrs
△Slate Elma M Mrs
11 Vacant
12 LaVelle Steph
Reeb Albert
14 Apartments
bsmt Riley Rose
1 Jordan Clarence
2△O'Dea Della nurse
3 Denning Florence D Mrs
4 Vacant
5 Schulz Donald F
6 Foster Jas L
Street continued
15△Grant Eliz Mrs
Gadenski Fred W
17 Morrison Mary E Mrs
18 Apartments
1 Thomas Lee A
2 Seifert Mable
3△Acosta Luella Mrs
4△Ray Kenneth F
5 Patton Della M Mrs
6 Vacant
20 Apartments
bsmt Ehnes Albert
1△Buchheit Louis A
2 Dimick Richd P
3△Fitzgerald Hazel
4 Tullock Wm H
5 Johnson Axel
6△Johnson Harold W
7 Diebold Marlan
8 Martin Ada Mrs
9△Hein Edw W
10 Rievert Eliz Mrs
Street continued
21△Curry John
Virginia intersects

105
ST MARGARET'S COURT—North ½ block to 20 Colton dr
1△Meyer Louis P
2△Myers John W ◎
△Myers Wm
5△Elsheimer E Raleigh ◎
6△Hill Willis H ◎
9△McCarthy Harry F ◎
10△Crissy Roy W ◎
15△Patton Lowell R ◎
16△McGowan Wm G ◎
19△Downey John J ◎
20△Blais Robt H ◎
Colton dr intersects

56
ST MARTIN'S PLACE—From Turner av north to Britt av, 1 east of Abbott rd
4△Reynolds Loren G ◎
8△Masterson Geo E ◎
12△Hillgen Geo J ◎
18△Domras Robt A ◎
22△Eigenbrod Geo J ◎
26△Korzelius Eug L ◎
Britt av begins

102
ST MARY'S ROAD—From 375 Walden av north to Doat
17 Bukowski Stanley ◎
Bukowski Clara
21△Cioiczak Louis F ◎
24△Nowakowski Peter J ◎
26 Freier Clarence H
Tomczak Frank
27△Jankowski Chester J
△Machtel Leonard J
30△Duszkiewicz Kath L Mrs ◎
△Kapinos Jos
△Kowalski Thaddeus
31△Dukiet Sigmund B ◎
32△Trzcinski Thaddeus ◎
△Ulatowski Stanley
35△Stanislawski Frank W ◎
Biercinski Walter
36 Zelakiewicz Dominic ◎
△Belknap Chas A
39△Klamut Julius ◎
40△Witkowski Matthew J ◎
41△Lewanski Jos R ◎
△Szafnicki Marion G
44 Sikorski Mary V Mrs ◎
Sikorski Theresa drsmkr
45△Dolan Henry T
△Zolnowski Leo A ◎
48△Kuchta Stanley F ◎
50△Dobaj John ◎
53△Jedrzejewski Anthony F ◎
54△Brick Peter H ◎
57△Johnson Alf M ◎
58△Kubalak Walter E ◎
59△Andrzejewski Michl ◎
△Malinski John A
60△Mosakowski Felix ◎
63△Rydza Roman J ◎
64△Jarzyniecki Michl S ◎
△Jarzyniecki Richd R
67△Gawel Edw W ◎
68△Sodo Mrs ◎
Twardowski Edwin F
71△Olszewski Francis W ◎
72△Jarocki Peter ◎
73△Pietrzak Mitchell A ◎
△Kuczmanski Edmund D
74 Forman Pearl ◎
△Purdy Wm M
77△Slawinski Jos A ◎
Fleming Henry I
85△Radziwon Edw C
△Kuklin Walter ◎
86 Sacilowski John F ◎
△Skowron Henry F
Felix pl begins
88△Mazur John A ◎
91 No return
92△Pyszczynski John J
△Zaczek Saml R
95 Wojciechowski Mary Mrs ◎
△Romanowski Leonard
96△Bojanek Jos ◎
99△Karwick Stanley J ◎
100△Kale Norman F ◎
101△Jendrasiak Ignatius
Syrek Paul R
102△Saracki Mary M Mrs ◎
105△Bauer Stanley J ◎
106△Kantowski Edwin L ◎
109△Wind Stanley F ◎
110△Kasprzak Edw L ◎
111△Jankowski Regina C Mrs ◎
△Krause Arth
114△Podak John P ◎
115△Fronczak Mary H Mrs ◎
116△Jankowski Danl S ◎
119△Glowacki Casimer ◎
120 Vacant
123△Wegrzynowski Stanley J ◎
124△Domzalski Frank J ◎
127△Przybyl John J ◎
Galas Victoria Mrs
128△Schultz Walter ◎
Doat intersects

2B15
ST MICHAEL PLACE—From Washington east to Ellicott, 1 south of E Tupper
(No houses)
Ellicott intersects

140
ST PAUL—From 1081 Main, east to Weimont pl
19△Pickert Gerard K ◎
21 Kennerly Calvin
Romanello Danl
23△Frazee Lloyd S
△Henderson Chas E ◎
27△VanTassell Sidney A ◎
29 Perry Elmer A ◎
30△Warner H Philip
△Noonan Maurice J
31△Thierfeldt Evelyn Mrs
△Lamm Jos N
32△Salter Marie C ◎
Butler John J
33△May F Chester
Swartz Wm ◎
35 Hore Lawrence N
△Santoro Jos ◎
36△McDonough Thos P ◎
△Faller Caroline B
△McDonough Thos C phys
38△Kearney Leo J
△Radel Frank W ◎
39△Hill Chester ◎
41△Rowe Jas ◎
42△Kennedy Lillian F Mrs ◎
△Corsen Burton
43△Camuza Anthony ◎
△Auger Mariett Mrs
46△Taravella Grace J
Wolf Raymond ◎
47 McIvor Edw
△Goetz John B
48△Wakefield John
49 Rogers Danl R
△Eron Harry
52-54△House Jacob & Sons flavoring extracts
Ellicott intersects
67 Crull Herman
O'Connor Mayme A Mrs
69 Hickey Gertrude Mrs
71△Hoffman Edw L ◎ toilet preparations
Walters Lena
72△Dickey Jas
73 Killian Geo C
△Nicholson Isabelle W Mrs
△Taylor Violet H ◎
Weimont pl intersects

72
ST STANISLAUS PLACE — From Buffalo River north to Seward, 2 east of S Ogden (not open)
Seward intersects (not open)

4
ST STEPHEN'S PLACE — From Harvey place southeast to Smith and northeast to 900 South Park av
Bolton pl begins
Smith intersects
16△Nicoll Francis C ◎
18△Kosicky Wm ◎
19△Brady John R ◎
20△Durkin Thos J ◎
22△Callahan Nelson M ◎
23△Proudman John
24△Klauk Chas ◎
25△Sonberg Robt C ◎
26 Rusek Leonard F
28△Szarpa Angeline Mrs ◎
Regula Richd
29△Lacy John J ◎
30 Balko Jos
31△Higgins Thos F
32△Downs Raymond J ◎
33 Curtin Cornelius J ◎
ST STEPHEN'S PLACE—Contd
34△Cavanaugh Wm ◎
38 Zamrock Frank C ◎
39△McCarthy Michl
△Kiebzak Jos J ◎
40△Dixon Jas P ◎
41 Klestinec Emro ◎
42△Osika John J
43△Wirth Cath
44△Reed Leslie W ◎
46△Lejweda Jan ◎
47△Rosenlund Herman J
△Enstrom Chas A
49△Velders Victor E ◎
52 Greaves John R ◎
53△Chludzinski Jos ◎
△Carney Edw J
55 Granviller John A ◎
△Mischel Chas A
South Park av intersects

62
SALEM—From 500 Abbott rd northeast to South Legion dr
16 South Buffalo Tabernacle
20△Regan Edw J ◎ funeral dir
21△Noshay Henry
△Jensen Paul E
△Hoffman Stuart W
23 Edinger Howard P ◎
24△Potter Leland N
△Patton Jas M ◎
25△Corcoran John F
△Lauth Cletus
27△Fabian Frank J ◎
28△Wilson Hugh J ◎
△Cavanaugh Steph
29 No return
30△Gallivan Martin
△Carr Frank J ◎
31△Roscoe Jennie M Mrs ◎
△Eschrich Milton L
35△Sydorowicz Steph
△Sydorowicz Kath Mrs ◎
36△Smith Frank J ◎
39△Roughead David ◎
△Menard Edwin O
40△Wright Alf L ◎
△Wright Victor A
41△Barrett Mary E Mrs ◎
Flynn Albert F
42△Stansfield Roy F ◎
45△Smith Norman H ◎
46△Standish John J ◎
Anderson Arth A
Cumberland av intersects
79△Sullivan Mary F ◎
△Reville Thos P ◎
80△Swaritztruber John F ◎
83△Elston Clarence V
△Furlong Mary Mrs
84△Hanne Eug ◎
△Wallace Edw
85△Nagel Arland C
△Zinns Walter J ◎
86△Osika Charlotte ◎
89△Southard Jas R
△Moebius Wm F
90△Deckert Howard J ◎
△Wirth Chas L
93△Tuttlebee Jack F ◎
97△Stocker John M
△Henesey Patk A ◎
99△Turner Francis
△Reid Jas A
103△Kuszmaul Corliss K ◎
△Bosanko Wm J
104 Apartments
1 Vacant
2△McNamara Patk J
3△Johnson Chas E
4△Gradl Clara A
106 Apartments
5△Gray Donald A
6△Kelly Patk F
7△Muckler Wm
8△Aberle Jerome
9△Wettlaufer Richd
10△Wilkie Vernon J
11△Byrne Geo P
12△Wilkie Vernon J
107△Dorff Chas E jr
△Broconier Grace Mrs
South Legion dr intersects

66
SAMSON AV—From Silverdale pl northeast to Fields av, 1 west of Buffum (not open)
Fields av intersects

22
SAN DOMINGO ALLEY — From 213 Emslie east to 90 Clare (not open between ½ block east of Lord and ½ block west of Montgomery)
(No houses)
Bond intersects
Lord intersects
(Not open between ½ block east of Lord and ½ block west of Montgomery)
80
Montgomery intersects
Clare intersects

101
SANDERS ROAD — From 2665 Delaware av east to Hobmoor av
21△Cornblum Irving J ◎
△Ladd Danl ◎
Markham pl begins
25△Finnerty Frank W ◎
30△Barrett Patk B ◎
31△Riordan John J ◎
35△Ermer Edw J ◎
36△Cavanagh Chas W ◎
Hoyer pl begins
Medford pl begins

ENGELHAUPT & CO HEAVY

TP	Adjoining	Source
✓	✓	Polk-Clement Directory Co. Inc.,

North Pearl 1950

1095 NIAGARA ST. PHONE LI. 6652 HARD CHROME PLATING

PEARL—Contd
1-B2
W Seneca intersects
72-74 Garry's restr
76-78 Neal R C Co Inc steel equip
77 Downtown Garage auto parking
82-84 Ryan & Williams Inc ofc equip and furn
84 Lanich Schreiner Co Inc conveying equip
86-88 Analab Products Co druggists sundries
90 Pundt-Jones Press printers
92 Webb J A Belting Co Inc
93-103 D'Humy Management Inc
Downtown Garage
94-96 Stetson R C Co store fixtures
Russell & Watson (Div Ruslander & Sons Inc)
100-02 Fradin Ernest auto parking
104-08 Union Paper & Twine Co
110-12 Dun Bldg
1st fl Auer Jos J ins
bsmt Ludlow Mail Adv Service
Rice Fred H Management real est
Buffalo Fire Office Inc ins
Rooms:
200 Bixby R W Inc emp agcy
301 Vacant
305 Dimick Corp ins
Manning Jas J ins
Elsaesser Albert J ins
306 Vacant
307 Vacant
308 Zahm John W
401 Bettinger A A Co Inc ins
Methodist Home for Children (treas ofc)
405 Fleet of America Inc window mfrs
406 Church & Religious Supply House
407 Austin Engineering Sales Co mfrs agts
Copy Paper Sales & Service ofc equip
408 Whiting Edw M decalcomanias
501-07 Stibbs Transportation Lines Inc
508 Bender Wm power tools
601 Weisbeck Jas E marine surveyor
Lloyd's Agency
Weisbeck Jas E jr marine surveyor
604 Vacant
605 Rapp F Harold food broker
606 United Brokers and Realtors
607 Ferster Reinhold C coml artist
701-04 Sheigren & Whitman archts
705-06 Dun Bldg (store rm)
707 Scheu Geo V P ins adjuster
708 Hoffman Ray C Estate
Smith Sidney E jr ship broker
Smith Sidney S Estate (ofc)
801 Paper Service Inc
802-04 Vacant
805 Vacant
806 Scherm & Stephan ins
Delwin Mines Ltd
Goetzmann Harry E ins
807-08 Herriman Emp Service
901 Harnischfeger Corp machy dlrs
904 Vacant
905 Vacant
906 Menzies & Co Inc (whse)
907-08 Glover Hermes & Adams Studios coml artists
1001 Mansfield Lloyd Co Inc adv agcy
1006-08 Kewin Chas C Co Inc chemists
W Swan intersects
1-B4
Erie intersects
120-22 Community Bldg
2d fl Girl Scouts of America (Greenhill dist)
Camp Fire Girls of Erie County
3d and 4th fls Community Chest of Bflo and Erie County
124-26 Insurance Exchange Bldg
1st and 2d fls Joyce Chas F Co Inc
Continental Casualty Co ins
Fogel Chester M ins broker
3d fl Deuel-Lapey & Co Inc ins genl
Maier Robt E lawyer
Zurich Genl Accdt & Liability Ins Co Ltd
Pfalzer Frank A lawyer
McGrath Francis J jr lawyer

Insurance Exchange Bldg—Contd
4th fl Lowe Alf J Ins
Conway Alice C ins genl
Wood Richd L & Co Inc ins genl
Ginther Cyril E ins genl
Better Homes Exposition (ofc)
128 StPaul's Cathedral House
130-36 Socony-Vacuum Oil Co Inc (div ofcs)
131 StPaul's Epis Cathedral
138 Shumway C Inc
140 Prudential Bldg
(For list of occupants see 28 Church)
144 Thomas Drug Co
Church intersects
155 Erie County Savings Bank (safekeeping, bond sales and redemption depts)
156 Monroe Abstract & Title Corp (side ent)
158 Underhill Bldg
Rooms:
200 Case Clifford H dentist
204 Tyng Arth cons eng
Tyng Edw acct
Adams Glenn H lawyer
205-06 Kressilk Products Inc bolting cloths
207 Buffalo Council on World Affairs
208 Tele Sound Service Co wired music
211 Vacant
212 Printing Industries Assn of Western NY Inc
213 Marshall Thos O pawnbroker
300 Vacant
301-02 Knisley and Knisley court reporters
303-04 Barnsdall J T jr lawyer
American Civil Liberties Union
305 Buffalo Amusement Operators Assn Inc
307 Letson Byron E lawyer
308 Lofts Ethel A beauty shop
312 Underhill Coal Co Inc
400 Bankers Litho Co
Edison Thos A Inc storage batteries
Mommertz Realty Co
404 Buffalo & Erie County Planning Assn Inc
Street continued
160 Ace Flag Co
162 Buffalo Typewriter Emporium Inc
Sweetland Lee W
162½ Jim & Glen's Milk Shake Bar restr
168 Hanna Garage Co of NY Ltd auto parking
174 Consolidated Railroad Ticket Office
NYC Sys ticket office
Lehigh Valley RR ticket office
Pennsylvania RR ticket office
Niagara intersects
189 Ricigliano Peter shoe shiner
1-B6
Bloomer al ends
Eagle intersects
190-98 Laube Cafeteria (side ent)
200 N Y Fire Adjustment Corp ins
Schwam & Miller locksmiths
202 Billman J C & Co office equip
203-05 Kobacher's Store (rear ent)
204 Safe Lock & Key Corp
206 Robertson & Sons shoe reprs
207-09 Adam Meldrum & Anderson Co (rear ent)
208 Maiorana Jos M barber
Wasko Elsa manicurist
210 Two Ten Pearl Street Bldg
lobby Cronyn Lucy A Mrs cigars
Rooms:
7 Montwill Wm tailor
8-14 Dept of Social Welfare (Central Intake Div)
205 Dept of Social Welfare (Miscellaneous Dept)
207 Dept of Social Welfare (Central Record Rm)
208-09 Petersen Beauty Salon
210 County Dept Soil Conservation
214-18 County Dept of Social Welfare (Dental Div)
3d fl County Dept of Social Welfare (Hosp Medical Div)
4th fl Erie County Dept of Social Welfare (Child Welfare Services)
500 County Dept of Social Welfare (Old Age Assistance Div)

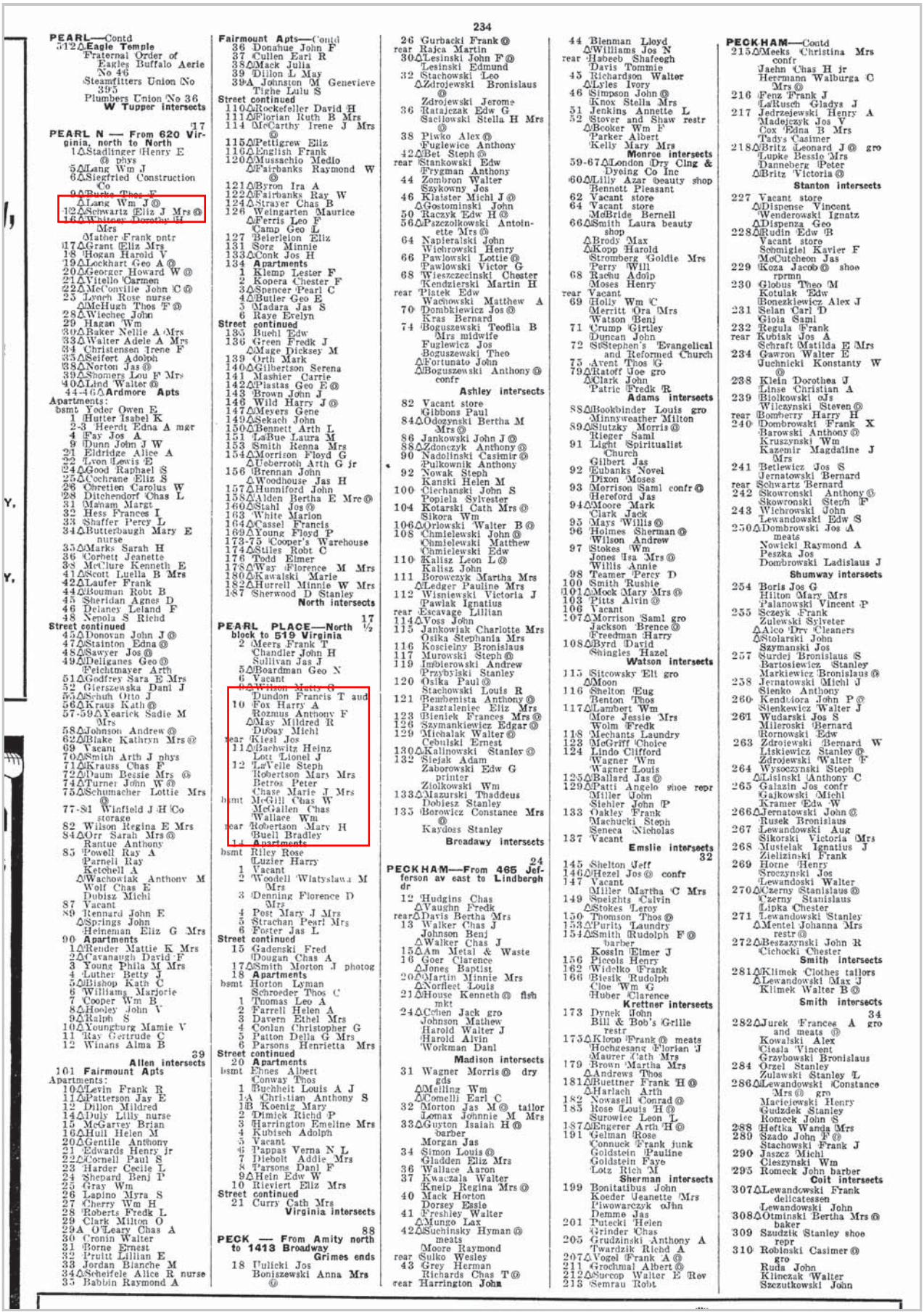
Two Ten Pearl St Bldg—Contd
517-18 County Dept of Social Welfare (Resource Div)
6th fl Dept of Social Welfare (District 1)
700 Dept of Social Welfare (Relief Recovery Div)
7th fl County Dept of Social Welfare (Central Accounting Div)
802 County Comnr of Bldgs
807 Dept of Social Welfare (Administrative Offices)
902-04 County Comptroller
905-06 County Personnel Director
909 County Park Comn
914-18 Comptroller's Office
1001-03 County Farm and Home Bureau Assn
1003 Four H Club Assn
1006 Agricultural Conservation Assn
Street continued
212 Alberts Carl A
214 Michaels Richd W ins
216 Cassa Corp The ins
218 Schumacher Wm J Corp ins
Maccabees The ins
Express al begins
222 Docket restr
226-28 Simplex Parking Sta
Court intersects
Omaha al begins
258 Bloom Saml Inc tailor
Nichols Fredk J furn rms
260 Smith Jas H restr
262 Christie Donald barber
267 Besser's Inc stationers
272-86 Edwards E W & Son dept store (side ent)
W Mohawk intersects
1-B8
W Genesee intersects
308-10 Genesee Hotel
312 Genesee Motoramp Garage
314 Brock Max liquors
318 Adytum Chaper No 325 (RAM)
Bflo Keystone Council No 17 (R&SM)
Lodge of the Ancient Landmarks No 441 (F&AM)
320 Palmoni Lodge of Perfection
Bflo Chapter of Rose Croix de (HRDM)
Palmoni Council Princes of Jerusalem
Bflo Consistory SPRS & Co-Ordinate Bodies
324-26 Hanna Garage Co of NY Ltd (br) auto parking
328 Orleman & Son pianos
330-32 Peters H L Inc sporting gds
334 Robbies Parking Lot
340-42 Ray's Sample Hat Shop
1-B9
W Huron intersects
352 Old Vienna Corp theatre
360 Homestead Savings & Loan Assn
Haighton Wm H
362 Polino Saml S auto parking
363-67 Flint & Kent dept store (rear ent)
369 Murphy's Grill
371 Portner Louis locksmith
380 Canton Chow Mein restr
380½ Pearl Billiards
382 Macon Grill The
384 Rocco's restr
Viale Louis
386 Leonardo's Inc restr
386-90 Grotto Bldg
Grotto Realty Corp
Mergler Leo V engr
Wonder Bar restr
Leonardo's Inc ofc
McDonald Thos E watch repr
Past Chancellor's Assn of KofP
Bflo Council No 14 IROM
Court West Side (IOOF)
Knights of Pythias (Wm McKinley Lodge)
Lady Pauline Circle No 1001 (CofF)
Progressive Club
Disraeli Benj Lodge No 686 (IOOF)
Mitra Zuanna Ladies of the Orient No 66
Oneta Council No 47 (IOOF)
Woman's Benefit Assn
Barber Shop Employees Club Inc
Film Exchange Employers Local No 39 (IATSE)
Ingeborg Lodge No 62 (CFofA)
Calanthe Temple No 5 Pythian Sisters
Oriole Auxiliary No 1 (IOOF)
Susanna Council No 28 (IOOF)

Grotto Bldg—Contd
Theatre Bldg Service Workers Local No 10 (CIO)
Past Pocahontas Club
Optical & Instrument Workers No 39 (AFL)
Associated Master Barbers of Am Local No 127
Brotherhood of Railway Clerks No 910
Coania Council No 53 (IORM)
United Heaters Equip Workers Union Local No 897 (CIO)
Pattern Makers Assn of Buffalo
388 Kast Jos E
389 Home Cafeteria Co restr
391 Gerace Thos S clo clnr
O'Connor Thos M liquors
392 Post Gertrude M Mrs
Zipf Service & Products Co chem mfrs
394 Buffalo Rapid Shoe Repair Co
395 White Tower System (side ent)
396 Keenan Bldg
Keenan Jas Son plmbrs
Keenan Thos J real est
398 Ley's women's clo
W Chippewa intersects
408 Nasco Bldg
(For occupants see 37-39 W Chippewa)
410 Great Lakes Barber Shop
412 Greyhound Cleaners
416 Stage Door The restr
420 Kar Park Service
426 Allen Floor Covering Co Inc
431 Hanna Garage Co of NY Ltd (br) auto parking
432-40 Mahoney Jas E auto parking
442 Busch Albert G
444-46 MacWilliams Mae Mrs
McMahon's restr
445 Midtown Bowling Center (rear ent)
450 Rivera Restaurant Inc auto parking
452 Tzetzo Bros Inc whol tobacco and candy
453 Tubby's Coffee Shop
454 Riviera Restaurant Inc
456 Franklin-Pearl Inc auto parking (rear ent)
470 Etherington Geo
472 Best Nellie Mrs
Galek Irving auto parking
490 Hotel Monroe
Hotel Monroe Restr
492 Becker Theatre Supply Co
494 Harmon Floyd C
496 Eastern Theatre Supply Co Inc
498 Motion Picture Operators Union Local No 233 (IATSE)
500 National Theatre Supply (div Natl Simplex Bludworth Inc)
504 Lockwood John
505-09 Byers Bldg
Columbia Pictures Corp film distributors
National Screen Service Corp
2d fl Republic Pictures Corp film distributors
Film Classics Inc film distributors
Eagle Lion Films Inc film distributors
Clark Film Distributors
4th fl Motion Picture Theatre Owners of NY State Inc
5th fl United Artists Corp film distributors
Monogram Film Exchanges Inc film distributors
6th fl RKO Radio Pictures Inc film distributors
Disney Walt Pictures Inc
Goldwyn Saml Pictures Inc
512 Eagle Temple
Fraternal Order of Eagles Bflo Aerie 46
W Tupper intersects
17
PEARL N — From 620 Virginia north to North
1 Stadinger Henry E phys
5 Lang Wm J jr
6 Siegfried Construction Co Inc
Frontier Contractors Equipment Co Inc
9 Lang Carrie B Mrs
12 Schwartz Eliz J Mrs
16 Seneca Harry S
17 Grant Eliz Mrs
18 Vacant
19 Lockhart Geo A
20 Georger Genevieve M
21 Bell Chas B
22 McConville John C

PEARL N—Contd
25 McHugh Thos F
28 Miller Robt
29 Schneider Frances
30 Baker Nellie A Mrs
33 Walter Adele A Mrs
34 Dolegala Stanley
35 Brown Frank
38 Norton Jas
39 Booth Blanche Mrs
40 Hanson Kenneth A
44-46 Ardmore Apts
1 Strot Celia C
2-3 Heerdt Edna A mgr
4 Sheridan Agnes D
8 No return
21 Carney Ellen G
22 Reid Wm H
24 Lenahan John J
25 Vacant
26 Chretien Carolus W
28 Rhodes Fredk S jr
31 Byrd Marie A Mrs
32 Hess Frances I
33 No return
34 Butterbaugh Paul J
35 O'Brien Anne E
36 Corbett Jeanette Jones Rodney F
41 Scott Luella B Mrs
42 Wing Mary E
44 Hart Bernard C
45 Zimmerman Reva
46 Plummer John F
48 Vacant
Street continued
45 Donovan John J
47 Stainton Edna
48 Eggett Harry J
49 Deliganes Geo Feichtmayer Arth
51 Lambrix Loveday
52 Giddings Harry W
53 Munsell Bertha E
56 Kraus Kath
57-59 Raymond Ralph
58 Hansen Julia Mrs
62 Blake Kathryn T Mrs
70 Smith Arth J phys
71 Krauss Chas F
72 Daum Bessie A Mrs
74 Dwyer Marie
75 Neagle Wm D
76 Neal R C Co Inc industrial supplies
77-81 Winfield J H Co storage
82 Lewis Edw
84 Orr Sarah Mrs
85 Johnson C Alton
Gallo Henry
Domhart Wm
89 Heineman EHz G Mrs
James Walter R
Rennard John E
Miller Virginia
Morgan Virginia
90 Apartments
1 Keating Wm H
2 Cavanaugh David F
3 Graetz Margot
4 Short Austin G
5 Winans Alma B Mrs
6 Williams Marjorie C Mrs
7 Sheehan Raymond
8 Hooley John V
9 Collins Jas T
10 Simonsen Arnold C
11 Ray Gertrude C
12 Vacant
39
Allen intersects
101 Fairmount Apts
10 Levin Frank R
11 Hill Bert F mgr
12 Wetaz Geo
14 Duly Lilly J nurse
Simpson Lillian Mrs nurse
15 Tetreault Arth
16 Hull Helen M
20 Raccuia Mary Mrs
21 Wander Fredk G
22 Corneil Paul S
23 Harder Cynthia Mrs
24 Shepard Benj P
25 Gray Wm
26 Lapin Myra S Mrs
27 Cherry Wm H
28 Gordon Agnes
29 Jordan Ethel M
29A Carey Susan
30 Cronin Walter E
31 Borne Ernest
32 Pruitt Lillian E
33 Jordan Blanche M
34 Scheifele Alice R nurse
35 Carstarphen Edw T
36 Donahue John F
37 Cullen Earl R
38 McGinn Ann
39 Dillon L May
39A Tighe Lulu S
Street continued
110 Rockefeller David H
111 Cleveland Geo S
114 McCarthy Irene J Mrs
115 Ogilvie Geo P
116 Lakeman Jos
120 Mussachio Medio Lions Saml
122 Fairbanks Ray W
124 Rogan Gerald
126 Pritchard John H Strayer Chas B Lennon Wm
131 Sorg Minnie M
133 Conk Jos H
134 Apartments
1 Dale Norman J
2 Kopera Chester F

TP	Adjoining	Source
✓	✓	Polk-Clement Directory Co. Inc.,

North Pearl 1946



PEARL—Contd
512 Eagle Temple Fraternal Order of Eagles Buffalo Aerie No 46
Steamfitters Union No 395
Plumbers Union No 36
W Tupper intersects

17
PEARL N — From 620 Virginia, north to North
1 Stadlinger Henry E @ phys
5 Lang Wm J
6 Siegfried Construction Co
9 Burke Thos F
Lang Wm J @
12 Schwartz Eliz J Mrs @
16 Whitney Dorothy H Mrs
Mather Frank pntr
17 Grant Eliz Mrs
18 Hozan Harold V
19 Lockhart Geo A @
20 Georger Howard W @
21 Vitello Carmen
22 McConville John C @
23 Lynch Rose nurse
McHugh Thos F @
28 Wiechec John
29 Hagan Wm
30 Baker Nellie A Mrs
33 Walter Adele A Mrs
34 Christensen Irene F
35 Seifert Adolph
38 Norton Jas @
39 Shomers Lou F Mrs
40 Lind Walter @
44-46 Ardmore Apts
Apartments:
bsmt Yoder Owen E
1 Hutter Isabel K
2-3 Heerdt Edna A mgr
4 Fay Jos A
9 Dunn John J W
21 Eldridge Alice A
22 Lyon Lewis E
24 Good Raphael S
25 Cochrane Eliz S
26 Cloetien Carolus W
28 Ditchendorf Chas L
31 Mahan Margt
32 Hess Frances I
33 Shaffer Percy L
34 Butterbaugh Mary E nurse
35 Marks Sarah H
36 Corbett Jeanette
38 McClure Kenneth E
41 Scott Luella B Mrs
42 Laufer Frank
44 Bouman Robt B
45 Sheridan Agnes D
46 Delaney Leland F
48 Nenola S Richd
Street continued
45 Donovan John J @
47 Stainton Edna @
48 Sawyer Jos @
49 Deliganes Geo @
Feichtmayer Arth
51 Godfrey Sara E Mrs
52 Gierszewska Dani J
55 Schuh Otto J
56 Kraus Kath @
57-59 Yearick Sadie M Mrs
58 Johnson Andrew @
62 Blake Kathryn Mrs @
69 Vacant
70 Smith Arth J phys
71 Krauss Chas F
72 Daum Bessie Mrs @
74 Turner John W @
75 Schumacher Lottie Mrs @
77-81 Winfield J H Co storage
82 Wilson Regina E Mrs
84 Orr Sarah Mrs @
Rantue Anthony
85 Powell Ray A
Parnell Ray
Ketchell A
Wachowiak Anthony M
Wolf Chas E
Dubisz Michi
87 Vacant
89 Bennard John E
Springs John
Heineman Eliz G Mrs
90 Apartments
1 Render Mattie K Mrs
2 Cavanaugh David F
3 Young Phila M Mrs
4 Luther Bettie J
5 Bishop Kath C
6 Williams Marjorie
7 Cooper Wm B
8 Hooley John V
9 Ralph S
10 Youngburg Mamie V
11 Ray Gertrude C
12 Winans Alma B
39
Allen intersects
101 Fairmount Apts
Apartments:
10 Levin Frank R
11 Patterson Jay E
12 Dillon Mildred
14 Duly Lilly nurse
15 McGarvey Brian
16 Hull Helen M
20 Gentile Anthony
21 Edwards Henry jr
22 Cornell Paul S
23 Harder Cecile L
24 Shepard Benj P
25 Gray Wm
26 Lapino Myra S
27 Cherry Wm H
28 Roberts Fredk L
29 Clark Milton O
29A O'Leary Chas A
30 Cronin Walter
31 Borne Ernest
32 Pruitt Lillian E
33 Jordan Blanche M
34 Scheifele Alice R nurse
35 Babbin Raymond A

Fairmount Apts—Contd
36 Donahue John F
37 Cullen Earl R
38 Mack Julia
39 Dillon L May
39A Johnston M Genevieve
Tighe Lulu S
Street continued
110 Rockefeller David H
111 Florian Ruth B Mrs
114 McCarthy Irene J Mrs @
115 Pilgrew Eliz
116 English Frank
120 Mussachio Medio
Fairbanks Raymond W @
121 Byron Ira A
122 Fairbanks Ray W
124 Strayer Chas B
126 Weingarten Maurice
Ferris Leo F
Camp Geo L
127 Beierleion Eliz
131 Sorg Minnie
133 Conk Jos H
134 Apartments
1 Klemp Lester F
2 Kopera Chester F
3 Spencer Pearl C
4 Butler Geo E
5 Madara Jas S
6 Raye Evelyn
Street continued
135 Buehl Edw
136 Green Fredk J
Mage Dickey M
139 Orth Mark
140 Gilbertson Serena
141 Mashier Carrie
142 Plastas Geo E @
143 Brown John J
146 Wild Harry J @
147 Meyers Gene
149 Sekach John
150 Bennett Arth L
151 LaBue Laura M
153 Smith Renna Mrs
154 Morrison Floyd G
Ueberroth Arth G jr
156 Brennan John
Woodhouse Jas H
157 Hunniford John
158 Alden Bertha E Mrs @
160 Stahl Jos @
163 White Marion
164 Cassel Francis
169 Young Floyd P
173-75 Cooper's Warehouse
174 Stiles Robt C
176 Todd Elmer
178 Way Florence M Mrs
180 Kawalski Marie
182 Hurrell Minnie W Mrs
187 Sherwood D Stanley
North intersects

17 ½
PEARL PLACE—North block to 519 Virginia
2 Meers Frank T
Chandler John H
Sullivan Jas J
5 Boardman Geo N
6 Vacant
8 Wilson Matty G
Dundon Francis T and
10 Fox Harry A
Roznus Anthony F
May Mildred R
Dubay Michl
rear Kiesl Jos
11 Bachwitz Heinz
Lott Lionel J
12 LaVelle Steph
Robertson Mars Mrs
Betros Peter
Chase Marie J Mrs
bsmt McGill Chas W
McGallen Chas
Wallace Wm
rear Robertson Mary H
Buell Bradley
14 Apartments
bsmt Riley Rose
Luzier Harry
1 Vacant
2 Woodell Wlatyslawa M Mrs
3 Denning Florence D Mrs
4 Post Mary J Mrs
5 Strachan Pearl Mrs
6 Foster Jas L
Street continued
15 Gadenski Fred
Dougan Chas A
17 Smith Morton J photog
18 Apartments
bsmt Horton Lyman
Schroeder Thos C
1 Thomas Leo A
2 Farrell Helen A
3 Davern Ethel Mrs
4 Conlan Christopher G
5 Patton Della G Mrs
6 Parsons Henrietta Mrs
Street continued
20 Apartments
bsmt Ehnes Albert
Conway Thos
1 Buehheit Louis A J
1A Christian Anthony S
1B Koenig Mary
2 Dimick Richd P
3 Harrington Emeline Mrs
4 Kubisch Adolph
5 Vacant
6 Pappas Verna N L
7 Diebolt Addie Mrs
8 Parsons Danl F
9 Hein Edw W
10 Rieviert Eliz Mrs
Street continued
21 Curry Cath Mrs
Virginia intersects

88
PECK — From Amity north to 1413 Broadway
Grimes ends
18 Ulicki Jos
Boniszewski Anna Mrs @

234
26 Gurbacki Frank @
rear Rajca Martin
30 Lesinski John F @
Lesinski Edmund
32 Stachowski Leo
Zdrojewski Bronislaus @
Zdrojewski Jerome
36 Ratajczak Edw G
Saciliowski Stella H Mrs @
38 Piwko Alex @
Fuglewice Anthony
42 Bet Steph @
rear Stankowski Edw
Frygman Anthony
44 Zombron Walter
Szykowny Jos
46 Klaister Michl J @
Gostominski John
50 Raczyk Edw H @
56 Pszczolkowski Antoinette Mrs @
64 Napieralski John
Wichrowski Henry
66 Pawlowski Lottie @
Pawlowski Victor G
68 Wieszczeciuski Chester
Kendzierski Martin H
rear Platek Edw
Wachowski Matthew A
70 Dombkiewicz Jos @
Kras Bernard
74 Boguszewski Teofila B Mrs midwife
Fuglewicz Jos
Boguszewski Theo
Fortunato John
Boguszewski Anthony @ confr
Ashley intersects
82 Vacant store
Gibbons Paul
84 Odozynski Bertha M Mrs @
86 Jankowski John J @
88 Zdoneczyk Anthony @
90 Nadolinski Casimir @
Pulkownik Anthony
92 Nowak Steph
Kanski Helen M
100 Ciechanski John S
Popiela Sylvester
104 Kotarski Cath Mrs @
Sikora Wm
106 Orlowski Walter B @
108 Chmielewski John @
Chmielewski Matthew
Chmielewski Edw
110 Kalisz Leon L @
Kalisz John
111 Borowczyk Martha Mrs
Ledger Pauline Mrs
112 Wisniewski Victoria J
Pawlak Ignatius
rear Escavage Lillian
114 Voss John
115 Jankowiak Charlotte Mrs
Osika Stephania Mrs
116 Koscieiny Bronislaus
117 Murowski Steph @
119 Imbierowski Andrew
Przybylski Stanley
120 Osika Paul @
Stachowski Louis R
121 Benbenista Anthony @
Pasztaleniec Eliz Mrs
123 Bieniek Frances Mrs @
126 Szymankiewicz Edgar @
129 Michalak Walter @
Cebulski Ernest
130 Kalinowski Stanley @
132 Siejak Adam
Zaborowski Edw G printer
Ziolkowski Wm
133 Mazurski Thaddeus
Doblesz Stanley
135 Borowicz Constance Mrs @
Kaydoss Stanley
Broadawy intersects

24
PECKHAM—From 465 Jefferson av east to Lindbergh dr
12 Hudgins Chas
Vaughn Fredk
rear Davis Bertha Mrs
13 Walker Chas J
Johnson Benj
Walker Chas J
15 Am Metal & Waste
16 Goer Clarence
Jones Baptist
20 Martin Minnie Mrs
Norfleet Louis
21 House Kenneth @ fish mkt
24 Cohen Jack gro
Johnson Mathew
Harold Walter J
Harold Alvin
Workman Danl
Madison intersects
31 Wagner Morris @ dry gds
Melling Wm
Comelli Earl C
32 Morton Jas M @ tailor
Lomax Johnnie M Mrs
33 Guyton Isaiah H @ barber
Morgan Jas
34 Simon Louis @
Gladden Eliz Mrs
36 Wallace Aaron
37 Kwaczala Walter
Kneip Regina Mrs @
40 Mack Horton
Dorsey Essie
41 Freshley Walter
Mungo Lax
42 Suchinsky Hyman @ meats
Moore Raymond
rear Sulko Wesley
43 Grey Herman
Richards Chas T @
rear Harrington John

44 Blenman Lloyd
Williams Jos N
rear Habeeb Shafeegh
Davis Tommie
45 Richardson Walter
Lyles Ivory
46 Simpson John @
Knox Stella Mrs
51 Jenkins Annette L
52 Stover and Shaw restr
Booker Wm F
Parker Albert
Kelly Mary Mrs
Monroe intersects
59-67 London Dry Clng & Dyeing Co Inc
60 Lily Azar beauty shop
Bennett Pleasant
62 Vacant store
64 Vacant store
McBride Bernell
66 Smith Laura beauty shop
Brody Max
Kopp Harold
Stromberg Goldie Mrs
Perry Will
68 Rachu Adolp
Moses Henry
rear Vacant
69 Holly Wm C
Merritt Ora Mrs
Watson Benj
71 Crump Girtley
Duncan John
72 St Stephen's Evangelical and Reformed Church
75 Avent Thos G
79 Ratoff Joe gro
Clark John
Patric Fredk R
Adams intersects
88 Bookbinder Louis gro
Minnyweather Milton
89 Slutzky Morris @
Riegey Saml
91 Light Spiritualist Church
Gilbert Jas
92 Eubanks Novel
Dixon Moses
93 Morrison Saml confr @
Hereford Jas
94 Moore Mark
Clark Jack
95 Mays Willis @
96 Holmes Sherman @
Wilson Andrew
97 Stokes Wm
Jones Isa Mrs @
Willis Annie
98 Teamer Percy D
100 Smith Rushie
101 Mock Mary Mrs @
103 Pitts Alvin @
106 Vacant
107 Morrison Saml gro
Jackson Brence @
Freedman Harry
108 Byrd David
Shingles Hazel
Watson intersects
115 Sitcowsky Eli gro
Moon
116 Shelton Eug
Benton Thos
117 Lambert Wm
More Jessie Mrs
Wolm Fredk
118 Mechants Laundry
123 McGriff Choice
124 Linda Clifford
Wagner Wm
Wagner Louis
125 Ballard Jas @
129 Patti Angelo shoe repr
Miller John
Siehler John P
133 Oakley Frank
Machucki Steph
Seneca Nicholas
137 Vacant
Emslie intersects
32
145 Shelton Jeff
146 Hezel Jos @ confr
147 Vacant
Miller Martha C Mrs
149 Speights Calvin
Stokes Leroy
150 Thomson Thos @
153 Purity Laundry
154 Smith Rudolph F @ barber
Kossin Elmer J
156 Piccols Henry
162 Widelko Frank
166 Biesik Rudolph
Cloe Wm G
Huber Clarence
Krettner intersects
173 Dynek John
Bill & Bob's Grille restr
175 Klopp Frank @ meats
Hochzesang Florian J
Maurer Cath Mrs
179 Brown Martha Mrs
Andrews Thos
181 Buettner Frank H @
Harlach Arth
182 Nowasell Conrad @
185 Rose Louis H @
Surowiec Leon L
187 Engerer Albert H @
191 Gelman Rose
Connuck Frank junk
Goldstein Pauline
Goldstein Faye
Lotz Rich M
Sherman intersects
199 Bonitatibus John
Koeder Jeanette Mrs
Piwowarczyk John
Demme Jas
201 Putecki Helen
Grinder Chas
205 Grudzinski Anthony A
Twardzik Richd A
207 Vogel Frank A @
211 Grochmal Albert @
212 Sucop Richard Chas E Rev
213 Semrau Robt

PECKHAM—Contd
215 Meeks Christina Mrs confr
Jaehn Chas H jr
Herrmann Walburga C Mrs @
216 Fenz Frank J
LaRusch Gladys J
217 Jedrzejewski Henry A
Madejczyk Jos Y
Cox Edna B Mrs
Tadys Casimer
218 Britz Leonard J @ gro
Lupke Bessie Mrs
Danneberg Peter
Britz Victoria @
Stanton intersects
227 Vacant store
Dispense Vincent
Wenderowski Ignatz
Dispenza Geo
228 Rudin Edw B
Vacant store
Schmiglel Xavier F
McCutcheon Jas
229 Koza Jacob @ shoe rprmn
230 Globus Theo M
Kotulak Edw
Bonezkiewicz Alex J
231 Selan Carl D
Gioia Saml
232 Regula Frank
rear Kubiak Jos A
Schraft Matilda E Mrs
234 Gawron Walter E
Juchnicki Konstanty W @
238 Klein Dorothea J
Linse Christian A
239 Biolkowski Jos
Wilczynski Steven @
rear Bomberry Harry H
240 Dombrowski Frank X
Barowski Anthony @
Kruszynski Wm
Kazemir Magdaline J Mrs
241 Bedlewicz Jos S
Jernatowski Bernard
rear Schwartz Bernard
242 Skowronski Anthony @
Skowronski Steph F
243 Wichrowski John
Lewandowski Edw S
250 Dombrowski Jos A meats
Nowicki Raymond A
Peszka Jos
Dombrowski Ladislaus J
Shumway intersects
254 Boris Jos G
Hilton Mary Mrs
Palanowski Vincent P
255 Szczyk Frank
Zulewski Sylveter
Taco Dry Cleaners
Stolarski John
Szymanski Jos
257 Surdej Bronislaus S
Bartosiewicz Stanley
Markiewicz Bronislaus @
258 Jernatowski Michl J
Sienko Anthony
260 Kendziora John P @
Sienkewicz Walter J
261 Wudarski Jos S
Mileroski Bernard
Bornowski Edw
263 Zdrojewski Bernard W
Ciskiewicz Stanley @
Zdrojewski Walter F
264 Wysoczynski Steph
Lisinski Anthony C
265 Galazin Jos confr
Gajkowski Michl
Kramer Edw W
266 Jernatowski John C
Rusek Bronislaus
267 Lewandowski Aug
Sikorski Victoria Mrs
268 Musielak Ignatius J
Zielizinski Frank
269 Horne Henry
Sroczynski Jos
Lewandoski Walter
270 Czerny Stanislaus @
Czerny Stanislaus
Lipka Chester
271 Lewandowski Stanley
Mentel Johanna Mrs restr @
272 Beszazynski John R
Cichocki Chester
Smith intersects
281 Klimek Clothes tailors
Lewandowski Max J
Klimek Walter B @
Smith intersects
34
282 Jurek Frances A gro and meats @
Kowalski Alex
Ciesla Vincent
Grzybowski Bronislaus
284 Orzel Stanley
Zulawski Stanley L
286 Lewandowski Constance Mrs @ gro
Maciejewski Henry
Gudzdek Stanley
Romeck John S
288 Hefka Wanda Mrs
289 Szado John F @
Stachowski Frank J
290 Jaszcz Michl
Cieszynski Wm
295 Romeck John barber
Coit intersects
307 Lewandowski Frank delicatessen
Lewandowski John
308 Otminski Bertha Mrs @ baker
309 Szudzik Stanley shoe repr
310 Robinski Casimer @ gro
Ruda John
Klinczak Walter
Szczutkowski John

North Pearl 1940

PEARL—Contd
391 Gerace Thos S clo clnr
394ΔBuffalo Rapid Shoe Repair Co
395 Vacant
396 **Keenan Bldg**
ΔKeenan Jas & Son plmbrs
ΔKeenan Thos J real est
Keenan Howard J office
Keenan Jas M office
398ΔGloverio The Inc ladies' furngs
W Chippewa intersects
406 Great Lakes Barber Shop
408 **Peabody Building**
ΔNagle's Employment Service
Rooms:
(A) ΔCohen Irwin chiropodist
1ΔMehlenbacher Howard J beauty shop
2ΔRavins A Harry dentist
ΔStresak Eug J optometrist
3ΔFowler Grace M electrolysis
ΔMarcel Hair Shop Wallace Beatrice Mrs beauty shop
4 Saxer Aug E violin repr
5 Vacant
6ΔWaldorf Dress Suit Co Inc
ΔRobshaw John P tailor
7ΔDorothy-Ann Hair Shoppe
8 Nagels Employment Agency
9 Vacant
11ΔSam's Trimming Service
15ΔMurphy Frank R theatrical agt
Street continued
410ΔElsheimer Fredk C watch repr
412ΔGarrasi Salvatore jr clo clnr
414ΔMeyer's Grill restr
416 Elwood Geo O cigar mfr
ΔStandard Dental Laboratories
420 Hanna Garage Co (br) auto parking
424-26-28ΔAllen Carpet Clng & Ruz Weaving Co
ΔAllen's Floor Covering Co
431-34ΔHanna Garage Co lot No 3 auto parking
432-40ΔYour Parking System auto parking
442 Fox Thos E 2
444-46ΔFrawley Earl T restr
MacWilliams Mae Mrs 8
450 Riviera Restaurant Inc auto parking
451ΔLeading Key Service
452ΔTzetzo Bros Inc whol tobacco and candy
Tzetzo Alex 1
453 Greyhound Bus Terminal (rear ent)
ΔTinr Coffee Shop
454ΔRiviera Restaurant Inc
455 Shea's Buffalo Theatre (stage ent)
458 Chippewa Garage Inc (br) (rear ent) (auto parking)
470 Leach Sadie Mrs 7
472ΔBush Eva Mrs 11 furn rms
475-77 C-Me Parking System Inc office
478ΔKolber Service Sta filling sta
479-81ΔBright Spot Garage
485 C-Me Parking System Inc (br)
490ΔHotel Monroe Hotel Monroe Grill restr
492ΔBecker Theatre Equipment Inc
493 Devoe & Raynolds Co Inc (rear ent)
494 Parrett Geo P 1Ⓞ
496ΔMetro Premium Co
497-99 Vacant
500ΔNati Theatre Supply Co
501 Vacant
504ΔTyler Lucille 2 restr
505-09 **Byers Building**
ΔColumbia Pictures Corp film distributors
ΔEconomy Poster Exch Inc
Advertising Accessories Inc
National Screen Service Corp
2d flΔF-O Pictures Corp film distributors
ΔRepublic Pictures Corp film distributors
3d flΔPam-O Film Exch film distributors
4th flΔUniversal Film Exch Inc film distributors
ΔMotion Picture Theatre Owners State of N Y (Buffalo Zone)
5th flΔUnited Artists Corp film distributors
Monogram Film Exchanges Inc film distributors
6th flΔR K O Radio Pictures Inc film distributors
512Δ**Eagle Temple**
Fraternal Order of Eagles Buffalo Aerie No 46
Manhattan Social & Benefit Society

PEARL N—**From 520 Virginia, north to North**
1ΔStadlinger Henry E 2 Ⓞ phys
5ΔMavity Wm 2
6ΔSiegfried N Osborne genl contr
9ΔDegner Anna Mrs 4Ⓞ
Ferguson Wm 2
12ΔSchwartz Eliz J Mrs 7 Ⓞ
16ΔWhitney Geo W 10
17ΔGrant Eliz Mrs 7
Tarpenning Fred 2
18ΔLong Geo W 2
Kean Wm 2
19 Ault Victoria Mrs 1Ⓞ
20ΔGeorger Howard W 3 Ⓞ
21ΔDuhane Jennie 3Ⓞ
22ΔWilcoxson Frank F 3Ⓞ
25ΔMcHugh Thos F 11Ⓞ furn rms
28ΔRondoux Chester P 6
29ΔBarlow Clara Mrs 6
30ΔBaker Nellie A Mrs 8
33ΔWalters Adele A Mrs 11Ⓞ
34ΔWilson Regina E Mrs 1
35ΔSeifert Adolph 2
38ΔNorton Jas 5Ⓞ
39 Burr Frank 9 furn rms
40 Anderson Margt Mrs 9
Rand Harry 5
44-46ΔArdmore Apts
bsmt Evans Earl D 1
Apartments:
1 Schuler Loretta M 1
2 Heerdt Edna A 1 mgr
3 Vacant
4 Graber Edw L 2
5 Sipe Aaron E 2Ⓞ
21 Meyer Henry 2
22 Sinsabaugh T R 2
24 Vacant
25 Vacant
26 Swann Geo 1
28 Swain Marie D 2 nurse
Gleason E Miriam nurse
31 Rosenberger Jos 2
32 Edwards Beaudry O 1
33 Shaffer Percy L 1
34 Butterbaugh Mary E 2 nurse
ΔButterbaugh M Elsie nurse
35 Brownley Pearl 1
36 Burke Thos P 2
38 Vacant
41 Hogard Jean B 1
42 Vacant
44 MacCubbin Thyra J 1
45ΔConnolly Winifred 1
46 Norwood Leon
48 Vacant
Street continued
45ΔDonovan John J SⓄ
47ΔStainton Edna 2Ⓞ
48ΔWashburn Milton J 4 Ⓞ photog
49ΔRispoli Mary 1
51ΔGodfrey Fred R 8
52ΔTobie Emil S 2 phys
55ΔSchuh Loretta Mrs 7
56ΔKraus Kath 2Ⓞ
57-59ΔYearick Sadie Mrs 13
58ΔStanley Beatrice B Mrs 1
62ΔBlake Wm J 7
70ΔSmith Arth J 3 phys
71ΔKrauss Chas F 6
72ΔDaum Ray 2
74ΔRace Lorena M Mrs 9 Ⓞ
75ΔSchumacher Conrad 8
77 Williams Awning Co whse
81ΔCentury-Elliott Co
82ΔBracken Edw H 4
84ΔOrr Sarah Mrs 7Ⓞ
85ΔCastor Naomi 1 drsmkr
Ryan Steven 2
87ΔGodfrey Fred R glass
89ΔBennett Alice Mrs 1
ΔToussaint Laura 2
90 **Apartments**
1ΔGeorger Eug T 2 janitor
2 Dyer John T 2
3ΔCullinan Edw D 2
4 Vacant
5ΔYost Alethea 1
6ΔNapier Coleman G 2
7ΔBooth Ira E 2
8ΔWalsh Jas L 3
9ΔMiller Jessie E Mrs 1
10ΔYoungburg Mamie V 1
11 Draddy Josephine A
12ΔMortenson Carl E 2
Allen intersects
101 **Fairmount Apts**
Apartments:
10ΔLevin Frank R 2
11 Osterhoff Rudolph R 2 janitor
12 Vacant
14ΔDuly Lilly 1 nurse
15ΔEmbridge Emma 1
16ΔHull Helen M 1
20 Henrich Annette 1
21 Deneau Jos L 1
22ΔCornell Paul S 1
23 Harder Cecile 1
24ΔBell Sidney B 1
25 Johnson Nellie B 1
26 Lapins Lorraine Mrs 1
27 Tighe Lulu S 1
28ΔMaher Edw B 2
29 Stone Saml 1
29a Mitchell Elsie 1
30ΔZapf Margt 2
31ΔKraemer Marion L 1
32 Pruitt Lillian E 1
33 Dobbs Carolyn 1
34 Vacant
35 Coleman Arnold 1
36 Donahue John 1
37 Condren Virginia 1
38ΔParent Nellie 1
39 Dillon L May 1

Fairmount Apts—Contd
39a Johnston M Genevieve 1
Street continued
110ΔFlax Helen Mrs 5
111ΔFlorian B Ruth Mrs 13
114 McCarthy Irene J Mrs 5Ⓞ
115ΔPettigrew Eliz 9
Therian Mary drsmkr
116ΔSchnick Julius J 11
120 Vacant
121ΔStrauss Magdalena 3
122ΔFairbanks Ray W 3
126ΔKline Albert W 9
127 Ford May Mrs 10
131 McCall Wm H 4
133ΔCook Jos H 8
134 **Apartments**
1ΔUrmston Hilda Mrs 1
2 Mayson Jean 2
3 Smith Patricia 1
4 Schubert Richd 3
5 Randall Dorothy M 3
6 Davidson Mary E Mrs 2
Street continued
135ΔRitchie May S Mrs 4
136 Lohr Delbert W 3
139 Few John S
140ΔNagy Mary Mrs 10
141ΔMosher Allen 4
142 Vacant
143 Stevens Fredk F 6
146ΔCrocker Virginia V Mrs 4
147ΔPlastas Geo B 4
149ΔValvo Anthony P 4
150ΔBennett Arth L 3Ⓞ oculist
151ΔUnger Emma L Mrs 5
153ΔEmerson Ira 4
154ΔKirk Claire M 3
156ΔHenry Geo 2
157ΔPrice Myrtle Mrs 12Ⓞ
158ΔAlden Bertha E Mrs 6 Ⓞ
160ΔStahl Jos 3Ⓞ
163ΔHawkins Ethel Mrs 8
164ΔParsons Kath E Mrs 3 Horsay Arth 1
ΔEgan Michl 1 pntr
169ΔReed Geo 13
173-75ΔNorth Pearl Garage Inc
174 Tenhagen Russell 3
176ΔAles Alphonse P 10
178ΔWay Florence M Mrs 10
Peters Bernice nurse
180ΔThamerus Jacob F 12
French Belle nurse
182ΔHurrell Minnie W Mrs 4
187ΔLakeman Jos 11

PEARL PLACE—**North ½ block to 519 Virginia**
1ΔWalsh Cath Mrs 6 furn rms
2 Meers Frank T 3
McMahon Chas 4
ΔMoyer Chas J W 5
Sullivan Jas 2
5ΔWood Bessie Mrs 6
6 Bain Ray 1
9 Chandler John H 5Ⓞ
10ΔBoyle Harry 2
Fox Harry A 2
Strinberg Aug 2
Antweiler Frank P 2
Gibson Geo 2
11 Welch Edw 1Ⓞ
12 LaVelle Agnes 1
Kolb Barbara Mrs 5
Robertson Mary Mrs 2
bsmt Buell Benj 2
McGill Chas W 2
rear Cook Alex 2
Cushing Geo L 2
14 Apartments
bsmt Cromwell Grace 2
1 White Mary Mrs 2
2 Downey Jos A 1
3 Denning Flora D Mrs 1
4 Post Mary J Mrs 1
5 Winsor Wm J 2
6 Vacant
Street continued
15 Queen Otis 2
Dempsey Fred 2
17ΔBrenner Victoria 1Ⓞ
18 **Apartments**
bsmt Horton Lyman 2
Guyott Mae Mrs 2
1 Thomas Lee A 2
2 Farrell Louis H 2
3 Davern Ethel Mrs 2
4 Groth Cath Mrs 2
5 Patton Della G Mrs 1
6 Schroeder Thos C 3
Street continued
20 **Apartments**
bsmt Dwyer Alice S Mrs 1
1 Bucheit Louis A J 3
1b Koenig Mary Mrs 1
2 Clark Chas H
3 Harrington Emeline Mrs 1
4 Nickert Margt Mrs 1
5 Butler Jas L 2
6 Keene Wm E 2
7 McFaul Charlotte Mrs 1
8 Vacant
9 Nohrden Carl 2
10 Leininger Eliz 1
Street continued
21 Curry Cath Mrs 3
Virginia intersects

PECK — From Amity north to 1413 Broadway
Grimes ends
18 Ulicki Jos 10
Janicki Minnie Mrs 2
26 Wieszczecinski Chester 6
rear Rajca Martin 2
30ΔLesinski John F 9Ⓞ
Lesinski Edmund 2
32 Kryszak Pelazia Mrs 2
Zdrojewski Bronislaus 5 Ⓞ
Wojnar Walter 5
36 Ratajczak Edw G 4
Sacilowski Stella H Mrs 7Ⓞ
38 Pivko Alex 10Ⓞ
Frankowski John 3
42 Bet Steph 5Ⓞ
rear Mazur Stanley 4
Zdonczyk Jos 4
44 Kaczmarek Chester 3
Lesinski John 4
46 Klaister Michl J 5Ⓞ
Gostomski John A 7
50 Raczyk Edw H 7Ⓞ
56 Pszczolkowski Blazy 7 Ⓞ coal
64 Napieralski Cath Mrs 2
Napieralski John 6
66 Pawlowski Lottie 3Ⓞ
Pawlowski Victor G 4
68 Chrzanowski Steph 5
Kendzierski Martin H 5
rear Blamowski Eug 5
Wachowski Matthew 3
70 Dombkiewicz Jos 5Ⓞ
Dombkiewicz Leon 3
74 Boguszewski Teofila B Mrs midwife
Lampke Leo 6
Gorney Casimer 2
Boguszewski Anthony 4 Ⓞ confr
Ashley intersects
82 Vacant store
Gibbons Paul 6
84ΔOdozynski Bertha M Mrs 5Ⓞ
86 Jankowski John J 5Ⓞ
88 Wujek Thos 3Ⓞ
Wujek Bronislaus 4
90 Nadolinski Casimir 3Ⓞ
Pulkownik Anthony 3
92 Stelmach Peter 4
Orlowski John 5
100 Ciechanski John S 5
Ciechanski Maximillian 4Ⓞ
104 Kotarski Cath Mrs 1Ⓞ
Swierski Bertha Mrs 3
Marchlewski Jos 2
106 Orlowski Walter B 6Ⓞ
Nowak John 3
108 Chmielewski John 3Ⓞ
Chmielewski Edw 3
110 Kalisz Leon L 3
Kalisz Josephine Mrs 2 Ⓞ
Kalisz John 3
111 Baran Stanley 4
112 Malicki Cath 1Ⓞ
Marciniak Frank 4
Brucz Stanley 8
114 Voss John E 1Ⓞ
Voss Frank W 4
115 Goldyn Barbara Mrs 3
Swierczynski May Mrs 6
116 Arent Chester J 4Ⓞ
117 Cieslak Anthony 7
119 Imbierowski Andrew 4
Przybylski Stanley 3
120 Osika Paul 4Ⓞ
Stachowski Louis R4
121 Bembenista Anthony 4 Ⓞ
Pasztalenic Eliz Mrs 2
123 Bieniek Stanislaw 2Ⓞ
126 Nagowski Henry S 4Ⓞ
Kasiewicz Victor 2
129 Michalak Walter 5Ⓞ
Cebulski Ernest 2
130 Kalinowski Stanley 5Ⓞ
132ΔZaborowski Victoria Mrs 1Ⓞ
Nowacki Jean Mrs 3
Zaborowski Edw G printer
133 Mazurski Thaddeus 5
Dobiesz Stanley 8
135 Borowicz Constance Mrs 5Ⓞ
Staszak Martha Mrs 4
Broadway intersects

PECKHAM—**From 465 Jefferson av, east to Lindbergh dr**
12 Davis Charlie 3
Vaughn Fred 2
13ΔWalker Chas J 2
Johnson Benj 4
rear King Geo 3
15ΔAmerican Metal & Waste
16 Atty Wm R
Jones Baptist 11
19 Ashley Adam 5
Hill Chas 4
20ΔMartin Geo C 8
Norfleet Louis 8
21 Moss Henry 2
Lowther Russell 5
Church of the Living God
24ΔGoldfarb Leo gro
Goldfarb Abr 4
Johnson Matthew 1
Roth Louisa Mrs 2
Madison intersects
31 Wagner Morris 2Ⓞ dry gds
Earl Wayman 2
Linsner Leo J 3
32 Morton Jas M tailor
Lomax Johnnie M Mrs 1
Valentine Felix 3
33 Reese Leonard
34 Simon Louis 3Ⓞ
36 Wallace Aaron 2
37 Kwaczala Walter 2
Kneip Regina Mrs 4Ⓞ
40 Ward Anna Mrs 4
rear Bossman John 2
41 Morton Jas M 5
ΔMungo Lax 4
42ΔSuchinsky Hyman 1Ⓞ meats
Moore Raymond 5
rear Klein Morris 3
43 Ghani David 3
Richards Chas T 6
rear Kelly Richd 5
44 Blenman Lloyd 6
rear Ghannam Hamdan 3
Harris Holsie 2
45 Frazier Harold E 5

PECKHAM—Contd
46 Popka John S 3
rear Kemp Julia 1
51 Jenkins Annette 3
52ΔDeBruin Bessie Mrs gro
ΔDeBruin Sol 5
ΔMitchell Sol L 3
Booker Wm F 7
Harbin Ina Mrs 4
Monroe intersects
59-67ΔLondon Dry Clng & Dyeing Co Inc
60ΔSnitzer Wm S gro
62 Vacant store
64 Vacant store
McBride Bernell 4
66ΔRabinowitz Jos 3Ⓞ
Kloner Harry 3
rear Stromberg Goldie Mrs 4
Stromberg Sol 2
68 Brody Max 4
Rachu Adolph 1
rear Utz Wm 6
69 Whitaker Danl 4
Merritt Ora Mrs 2
70 Vacant
71 Crump Girtley 5
Finkley Cozy Mrs 2
72 StStephen's Evangelical and Reformed Church
75 Manyweather Melton Avent Thos G 9
79 Vacant store
Nelson John H 3
Adams intersects
88ΔKrutchick Leon 6 gro
89ΔSlutzky Morris 7Ⓞ
Rieger Saml 5
91 Light Spiritualist Church
ΔTerrell Tabitha G Mrs Rev 2
92 Eubanks Novel 2
Dixon Moses 7
93 Wagner Wm T 2
Smith Ossie Mrs 2
94 Moore Mark S
Brown Mary Mrs 2
95 Sevillian Cleveland 7
96 Doyle Edw J 3
Schaefer Louisa K 2
97 Stokes Wm 4
Sholitsky Jos 2
Gafter Nathan 5Ⓞ
98 Teamer Percy D 7
100 Yates Alf H 4
101ΔMock Louis G 4Ⓞ
103 Goldenbaum Dewey J 1 Ⓞ
Hobison Frank C 4
106 Vacant
107ΔFreedman Benj 2Ⓞ gro
Freedman Harry 2
108 Leites Saml 2 fish
Watson intersects
115ΔErlin Aaron 2Ⓞ gro
Erlin Jacob 2 pntr
116 Fassel Jos 3
ΔNiagara Dry Beverage Co
Backert Harriett 5
Walker John D 7
117 Wexler Sara Mrs 1
Wolm Fredk A 2
Pirk Harold 6
123 Kester Casper 7
124 Kam Anthony A 5
Rey Cyril 7
rear Wagner Louis J 6
125 Savasta Jos 6
129 Patti Angelo 3 shoe repr
Gimpio Richd R 4
rear Siehler John P 2
133 Greenauer Karl 6
Hartley Arth C 2
Machucki Steph 3
137 Vacant store
Emslie intersects
145 Foster Robt 3
146ΔHezel Jos 4Ⓞ confr
147 Miller Geo M 3
149 Wilson Stanley J 5
Brown Martha L Mrs 5
150 Thomson Thos 3Ⓞ
Thomson Robt T 2
153-65ΔTravers & Newman beer distributors
153 Herman Jos auto repr
ΔPurity Laundry
154ΔSmith Rudolph F 2Ⓞ barber
Bogumil Erich E 3
156 Yager Steph A 7
162 Sztaba John
166 Vacant store
Panczyk Michl 7
Elverse Earl C 3
Krettner intersects
170 Reidert Willis B
173ΔDerkits Jos F 4 restr
175ΔKopp Frank 2Ⓞ meats
Hochgesang Florian J 2
179ΔMorseon Jacob P 8
Busch Alf O 4
181ΔBuettner Frank H 7Ⓞ
Veiders Alphonse J 5
183 Nowasell Conrad 11Ⓞ
185 Rose Henry jr 5Ⓞ
187ΔEngelbert Nathaniel W 4
191 Stariko Morris 6
ΔConnuck Frank 5
Goldstein Pauline Mrs 3
Sherman intersects
199ΔHood Rubber Co Inc whol leather
Bonitati John 3
Brown John 2
201 Rutecki Jos 2
Grinker Chas H 6
205 Grudzinski Antonia Mrs 2
Twardzik Richd 2
207ΔVogel Frank A 4Ⓞ
211 Valentine John F 6
212ΔEngelbert Paul C Rev 3Ⓞ
Englebert Richd M 3
213 Rowels Jas 2

North Pearl 1935

PEARL—Contd
Stock Exchange Bldg—Contd
814 ΔWeinberg A Gerald lawyer
ΔRuttenstein Maxwell A acct
ΔWeinberg & Weinberg sheet metal wkrs
ΔBuffalo Cutlery Co
ΔNatl Window Display Service
ΔPrivitera Jas R lawyer
815 Vacant
816 Vacant
817-18 ΔGladner Saml lawyer
ΔKarnofsky Hyman lawyer
ΔWexler Morris lawyer
ΔFried Arth W lawyer
819-20 Vacant
901 Vacant
902 ΔAndrew Walter G office
903-05 ΔVerdi Steph L lawyer
ΔPacini Alf R lawyer
ΔInfausto Felix lawyer
904 ΔWeiss J Adam lawyer
ΔLaudate A Vincent lawyer
ΔGriffin Thos J mercantile agcy
906 ΔWildermuth Erwin E real est
907 Vacant
908 Vacant
909 ΔGesegnet Geo whol flour
910 Vacant
911-13 Vacant
912 ΔMines Development Corp brokers
914-15 ΔPlumley Albert W lawyer
ΔFarnham Chas C lawyer
ΔOsborne Heights Land Co
916-18 ΔBacon Hiram H lawyer
ΔKalmbach Frank A office
ΔVoltz Louis J lawyer
ΔWilkie Lafayette C lawyer
ΔYoung Raymond W lawyer
ΔSobolewski Edw C lawyer
919 Vacast
920-21 Vacant
1000 Vacant
1001-02 Vacant
1003 Vacant
1004 ΔCowper Wm H office
ΔWestcott Byron H real est
1005 Vacant
1006 ΔStock Exchange Bldg office
1007 Vacant
1008 ΔDaniels Sol lawyer
1009 Vacant
1010 ΔHydro Construction Co
1011-12 ΔWallace Robt A archt
1013 ΔHurd Walter C lawyer
ΔBuffalo Assn University of Rochester Alumni
1014 ΔHuron Portland Cement Co
1015-16 ΔGorman Detective Bureau
1017 ΔLorenzo S & Co real est
ΔBleich Bros civ eng
Street continued
212 Vacant
214 ΔDonner-Hanna Coke Corp
ΔEconomy Fuels Corp
216 Vacant
218 ΔSchumacher Wm J Corp ins
222 ΔDonahue Frank J restr
226 Vacant
228 ΔLang & Allgrim locksmith
ΔRobertson & Sons shoe reprs
Susemihl Henry G furn rms
Court Intersects
256 ΔSuperior Leather Shop
258 Nichols Fredk J furn rms
260 ΔPollak Jas A mfrs agt
ΔPollak Paint Co Inc
266-96 ΔEdwards E W & Son dept store (rear entrance)
295 Rizzo John shoe shiner
W Mohawk Intersects
W Genesee Intersects
308-10 ΔMen's Hotel
Laube Cafeteria restr
Gandelot Leo J cigars
Men's Hotel Barber Shop
312 ΔGenesee Motoramp Garage
314 Brinkworth Florence S Mrs liquors
318 Landmarks Temple
320 Vacant
322 ΔLorenzo S & Son tailors
324-26 ΔHanna Garage Co auto parking
328 ΔSprenger's Dutch Tavern
330-32 ΔPeters H L Inc sporting gds
334 U-Me Parking Sta
340 ΔSword & Shield Book Store
342 ΔJo-Belle Hat Works mlnry
W Huron Intersects
349 Rav's Sample Hat Shop
352 Gayety Theatre
357 ΔColeman Michl J ⓞ
360 ΔHomestead Savings & Loan Assn
Petersen Ustin
362 Polino Saml auto parking
363-67 ΔFlint & Kent dept store (rear entrance)
369 ΔOmega Cafe restr
371 ΔPortner Louis locksmith
372-74 ΔBuffalo Linotyping Corp
Chute Jos W cigars
376-78 ΔWindo-Craft Display Service sign pntr
380 Vacant
380½ Vacant
382 Meredith Fred H restr
384 Vacant store
Meredith Fred H
386 ΔLorenzo's Sunny Italy Restr
388 Vacant
389 Home Dairy Cafeteria (side entrance)
386-88 Moeller Bldg
390 Vacant store
ΔMergler Leo V engraver
ΔRote Clarence P watch repr
Stationary Engineers Local No 907
Paternmakers Assn
MtSinai Court 131 (Order of Amaranth)
391 Bucino Nicholas hat clnr
Gerace Thos clo clnr
392 Vacant store
ΔBeluche Jos & Son mfg jwlrs
ΔMoeller Edw H archt
ΔSutton John R press printers
ΔBeluche Fernand E dry clng equipt
Cuff Victor
Lady Pauline Circle Forester of Am
Mitra Zuanna Ladies of the Orient No 66
Eastern States Mission Church of Jesus Christ L D S (Mormon)
Oneta Council No 47
Odin Lodge (Sons of Norway)
Court Delaware No 3901 Independent Order of Foresters)
Thule Lodge No 72 (Independent Order of Vikings)
Ingeborg Lodge No 62 (C F of A)
Past Chiefs (CFofA)
Past Pocahontas Club
International Jewelery Workers No 15
Star of Amherst No 554 (C F of A)
International Union of Operating Engineers
Buffalo General Office Workers Local 248
Buffalo Council No 50 (J O of U A M)
Coania Council No 53 D of P
Associated Master Barbers of Am Local No 127
Bartenders Union Local No 175
Mount Sinai Court No 131 Order of Amaranth
Royal Neighbors of Am No 4962
Forward Lodge No 472 Fraternal Home Ins Soc
Brotherhood of Ry Clerks No 910
Sons & Daughters of Liberty Bflo Council No 50
Waitress Union Local No 347
Sasane Council No 28 Degree of Pocahontas
394 Bflo Rapid Shoe Repair Co
395 Tuccelli Louis D barber
396 Keenan Bldg
ΔKeenan Jas & Sons plmbrs
ΔKeenan Thos J real est
398 Gloverie The ladies furngs
W Chippewa Intersects
406 Great Lakes Barber Shop
408 Peabody Building
Rooms:
(A) ΔCohen Irwin chiropodist
1 ΔLouise & Ethel Millinery
2 ΔRavins A Harry dentist
3 ΔFowler Grace M electrolysis
ΔMarcel Hair Shop
Fleischauer Esther beauty shop
4 Saxer & Frey violin mkrs
5-6 ΔSist Thos C tailor
6 ΔWaldorf Dress Suit Co Inc
7 Vacant
8 Vacant
9 Vacant
10 Vacant
11 Vacant
12 Vacant
15 Vacant
Street continued
410 ΔElsheimer Fredk C watchmkr
412 Wacinowski Rudolph S tailor
414 Pearl Billiards
416-18 ΔMeyer's Grill restr
416 ΔMurphy Frank R booking agt
ΔStandard Dental Laboratory
420 Hanna Garage Co auto parking
424-26-28 ΔAllen Carpet Clng Co
ΔAllen's Floor Covering Co
430 ΔWeber Hugo O
431-43 ΔHanna Garage Co auto parking
438-40 Harry's Parking System auto parking
442 Carr Emily E Mrs furn rms
444-46 ΔFrawley Earl T restr
450 Tzetzo Bros Inc (parking lot)
451 ΔLeading Key Service
452 ΔTzetzo Bros whol tobacco and candy
453 Greyhound Bus Terminal (rear entrance)
Azar Jos D restr
454 ΔRiviera Restaurant Inc
455 Shea's Buffalo Theatre (stage entrance)
464 ΔKeller Brothers Transfer Co Inc
ΔBob Bros Studio photogs
468 Vacant
470 Leach Sadie Mrs
472 Voss Bertha L Mrs furn rms
475-77 ΔC-Me Parking Sta
478 Kinnear Earl A filling sta
479-91 ΔWaverly Garage
485 C-Me Parking Station
490 ΔHotel Monroe
492 ΔExhibitor's Poster Exchange adv
ΔBuffalo Engineering Laboratory
493 Devoe & Raynolds Co Inc (rear entrance)
494 Kelly Sarah Mrs
496 ΔGaumont British Picture Corp
ΔTwentieth Century-Fox Film Corp
497-99 Vacant
500 ΔNatl Theatre Supply Co
501 Vacant
504 ΔStrauss Lillian Mrs restr
505-09 Byers Building
ΔSelect Theatre Premiums Co
ΔEconomy Lobby Display
ΔColumbia Pictures Corp film distrs
ΔFirst Division Exchanges Inc film distrs
2d fl ΔF C Pictures Corp film distrs
ΔRepublic Distributing Corp film distrs
3d fl ΔR K O Distributing Co film distrs
ΔHollywood Film Exchange Inc film distrs
4th fl ΔUniversal Film Exchange
ΔMotion Picture Theatre Owners State of N Y (Western Zone)
5th fl ΔUnited Artists Corp film distrs
6th fl ΔMetro-Goldwyn-Mayer Dist Corp film distrs
Street continued
512 ΔEagles Temple
Fraternal Order of Eagles Buffalo Aerie No 46
Manhattan Social & Benefit Soc
Tribe of Ben Hur
Great Lakes Court No 343 Foresters of Am
Amalgamated Clothing Workers of Am

PEARL NORTH—From 522 Virginia, north to 26 North
1 ΔStadlinger Henry E ⓞ phys
5 Vacant
6 ΔSiegfried Isabelle A Mrs ⓞ
ΔSiegfried N Osborne genl contr
[redacted]
Nagel Jos J
12 ΔSchwartz Eliz J Mrs ⓞ
16 ΔAmidon Otto W
17 ΔGrant Eliz Mrs
18 ΔBaid Philip ⓞ
Moyer Chas J
19 ΔBlake Wm J ⓞ
ΔSwing-In Window Device Inc
20 ΔGeorger Howard W ⓞ
21 ΔDuhane Jennie
22 ΔMadigan Kath Mrs ⓞ
ΔTobias Justin C ⓞ
25 ΔMcHugh Terrance F ⓞ bldg contr
28 ΔRobidoux Chester P
Collins Ada Mrs nurse
29 ΔVarlow Clara Mrs
30 ΔBaker Nellie A Mrs ⓞ
33 ΔWalters Adele A Mrs
34 ΔWilson Regina E Mrs
35 Seifert Adolph
38 ΔNorton Jas ⓞ
39 Ward Jos J
40 ΔQuinn Margt A Mrs ⓞ business broker
44-46 Ardmore Apts Inc
ΔSipe Aaron E ⓞ
45 ΔDonovan John J ⓞ
Barbour Eliz drsmkr
47 ΔStainton Ruth L
48 ΔWashburn M Jas ⓞ
49 Cavanaugh Robt J
51 ΔGodfrey Fred R
52 ΔTobie Emil S phys
55 ΔClemesha John U ⓞ
56 ΔKrause Kath ⓞ
57-59 ΔScott Dewey A
58 ΔStanley Beatrice B
62 Moore Gertrude drsmkr
ΔDarling Lydia
70 ΔMcCaffrey Alice M
Dittman Carolyn drsmkr
71 ΔKrauss Chas F
Rex Cement Co glue mfrs
72 ΔRosenau Beatrice ⓞ
74 ΔRace Menzo D ⓞ
75 Wallace Hoyle
ΔSchumacher Conrad ⓞ
Flanigan Frank
77 ΔSuess Chas W int decorator
81 ΔLentz Calvin J
82 Christie Viola Mrs
84 ΔOrr Sarah Mrs ⓞ
85 ΔIsham Arth F dentist
Castor Naomi drsmkr
Walters Elsie H nurse
87 ΔGodfrey Fred R glass

North Pearl 1930

PEARL—Contd
505 Byers Building
Pathe Exchange Inc film distr
Columbia Pictures Corp film distrs
2d fl First National Pictures Inc film distrs
Tiffany Productions Inc film distrs
3d fl New York Exchange film distrs
R K O Distributing Corp film distrs
Sono Art World Wide Pictures film distrs
Educational Films Inc
4th fl First Graphic Exchanges Inc film distrs
5th fl Behr-Manning Corp (br) abrasives
6th fl Metro-Goldwyn-Mayer Dist Corp film distrs
Street continued
512 Eagles Temple
Fraternal Order of Eagles Buffalo Aerie No 46

PEARL NORTH—From 522 Virginia, north to 26 North
1 Stadlinger Henry E © phys
5 Morse Bertha Mrs ©
6 Siegfried Cyrus S © phys
9 Degner Anna Mrs
12 Schwartz Eliz J Mrs ©
16 Northrup Harvey
Hallenbaug's Wm
17 Reynolds Wm A
18 Bald Philip ©
19 Ames Rose Mrs
20 Georger Josephine M Mrs ©
21 Duhane Margt
22 Madigan Peter J
25 McHugh Thos F
28 Diem Chas J
29 Fildbauer Anthony
30 Baker Nellie A Mrs ©
33 Earl Fred
34 Thomas Eliz Mrs
35 Mann Chas W
38 Cunning Ola
39 Smith Thos F
40 Gavin Belle
42-46 Ardmore Apts The
Wilson Chas N
45 Donovan John J ©
47 Stainton Ruth L ©
48 Lakay Irene Mrs
Snoke Lester
49 Smith Walter C
51 Weinberg Sol
52 Toble Emil S © phys
55 Clemesha John C © phys
56 Kraus Mary A Mrs ©
57 Brickner Carl
Nabling Fred O
58 Wagner Albert M
Wagner Magdalena Mrs ©
Wagner Matt & Son cigars whol
59 Vacant
62 Butcher Melvin
70 McCaffrey Alice M
71 Krauss Chas F
72 Rosenau Miriam ©
74 Race Menzo D ©
75 Schumacher Conrad ©
79 Smith Film Service Inc
81 Henafelt Fred
82 Bracken Edw H
Stewart Eldred E
84 Buell Florence A Mrs
85 Isham Arth F dentist
Waters Alf H dentist
Wilcox Urquhart artist
87 Godfrey Fred R glass
89 Rippel Martha M music tchr
Schott Chas F
90 Apartments
1 Aldridge Curtiss M
Aldridge Helen nurse
2 Mallon Henry H
3 Fuchs Eug E
4 Aske Saml J
5 Vacant
6 Vacant
7 Yost Alethea G
8 Rayworth Harley
9 Vacant
10 Vacant
11 McGraw Elsie
12 Noonan Cath T nurse
Allen intersects
101 Fairmount Apartments
Apartments:
10 Murray Pearl Mrs
11 Wilcox Raymond
12 Vacant
14 Vacant
15 Waite Gertrude J Mrs
16 Sly Grace
20 Vacant
21 Vacant
22 Walsh Norman
23 Bernard Ione
24 Mohr Chas H
25 Scheitheir Rudolph O
26 Jordan Mary B
27 Manning Francis
28 Eaman Agnes B
29 Vacant
29A Watkins Benj
30 Schumacher Anna
31 Dobbs Carolyn
32 Pruitt Lillian
33 Davis Patricia
34 Kummerer Geo
35 Maitland Gertrude
36 Vacant
37 Blough Budd
38 Hortney John
39 Vacant
39A Vacant
Street continued
110 Smith Arth J phys
111 Allen Mildred O Mrs
114 Donovan J Francis dentist
McCarthy Irene Mrs ©
115 Pettigrew Eliz
116 Caves John H
120 Fairbanks Geo W ©
121 Spring Nellie Mrs
122 Fairbanks Ray W
126 Darker Wm W
127 Crowley Nora
LaRusch Edw
Gilchriese John
131 Coyle Chas
133 Martin Wm
134 Apartments
1 Sweet Chas M
2 Modieska Wallace A
3 Robinson Adele E
4 Ennis Albert W
5 Vacant
6 Baker Paul T
Street continued
136 Barnett Alvin T
Burke Otto H
rear Bennett Doris E
139 Huguenin Irene
140 Drexelius Tessie C
141 Vail Nellie J Mrs
142 Filkins Clarabel Mrs
143 Spang Mae Mrs
146 Seward Emma B Mrs ©
147 King Martha L Mrs
149 Vacant
150 Bennett Alice Mrs
Bennett Arth G oculist
Bennett Arth L oculist
151 Unger Fred
153 Prentiss Eliza A Mrs
154 DeWitt Arth
McCarthy Francis J
156 Leberman Carlos D
157 Shelley Frank
158 Alden Bertha E Mrs
160 Stahl Jos
163 Campbell Francis S
164 Parsons Kath
169 Burke Mary E Mrs
174 Dewey Guy C
175-83 Stephens S A Inc autos
176 Merz Edw J
178 May Florence M Mrs
180 Thamerus Fred L
182 Hurrell Minnie Mrs
187 Lang Chas

PEARL PLACE—From 521 Virginia south
1 Jenkins Grace Mrs
2 Wagner Mary
Corrigan Robt
Kautz Jos
5 Henry Eunice L
6 Burns Arth
9 Chandler John
10 Jamieson Robt
Parker Samson J
Gorman J Mrs
Brown Martin
11 Welch Sarah Mrs
12 McGuire Victoria Mrs
Fraser Lillian
Dugan Jas
Linss John
14 Glasstone Harry
Heintz Marie A
Patton Della Mrs
Potter Alice Mrs
Tracy Ida Mrs
bsmt Lent Jack
15 Hamilton Frank
Schaffer Harold W
17 Wacker Louis
18 Apartments
bsmt Bartlett Ada Mrs
Kirchoff Otto B
1 Thomas Lee A
2 Gale Maurice E
3 Fagan Wm J
4 Murphy Ellen
5 Post Jas
6 Nagel Christine M
Street continued
20 Sterns Virginia Mrs
Buchheit Louis A ©
Donohue Patk J
Hurley E Agnes Mrs
Lusk Mary Mrs
McCue Julia Mrs
Valentine Chas A
Smallwood Marcus
Wall Cath Mrs
21 Koch Frances

PECK—From N Y C R R, north to 1413 Broadway
18 Pudlewski Stanley
Brzezowski Jos
26 Kasprzyk Jos ©
Szczutkowski Leon
30 Lesinski John F ©
Frys Bernard
32 Krysiak Michl ©
Wojnar Walter
Zdrojewski Jos
36 Szaciolowski Peter ©
Zdrojewski Bronislaus
38 Klaister Michl
Piwko Alex ©
42 Bet Steph ©
rear Przewozny Stanley
Polikart Rytel
50 Raczyk Rose Mrs ©
56 Pszczolkowski Blazej coal
64 Wieklinski Anthony ©
Brzezinski Frank
66 Pawlowski Valentine ©
Warligorski Paul
68 Borowski Stanley ©
Ulicki Jos
rear Graczkowski Paul B
70 Stukowski Bronislaus
Borowski Stanley ©
Ashley intersects
74 Boguszewski Anthony ©
Pitoniak Andrew
82 Lodorzynski Stanley meats
84 Odozynski John
86 Jankowski John J ©
88 Wujek Thos ©
90 Nadolinski Casimer ©
Pulkownik Anthony
92 Gawronski Mary Mrs ©
Jankowski Steph
100 Ciechanski Theo ©
Ciechanski John
104 Kotarski Cath Mrs ©
106 Orlowski Walter ©
108 Chmielewski John ©
Blazejewski Anthony
110 Kalisz Thaddeus
Kalisz Leon ©
111 Majewicz Edw
Majewicz Michl
112 Grucza Conrad P
Malicki Cath
114 Voss John ©
Voss Frank
115 Zakrzewski Pearl Mrs gro
Zakrzewski Felix ©
116 Janicki John ©
117 Cieslak Anthony
119 Imbierowski Andrew
Krajnik Jos
120 Osika Paul ©
Stachowski Louis
121 Bembenista Anthony ©
Pasztaleniec Eliz Mrs
Pasztaleniec Peter
rear Dominiak Valentine
123 Bieniek Stanley ©
126 Mentkowski Leo
Kasiewicz Jos
129 Glowicki Anthony ©
Glowicki Felix
130 Kalinowski Stanley ©
132 Zaborowski Geo ©
Nowacki Andrew
133 Gostomski Frank ©
Czenszak John
135 Borowicz Frank ©
Staszak Frank

PECKHAM—From 465 Jefferson av, east to Curtiss
12 Boyd Chas
Vaughn Fred
rear Atty Wm
13 Jackson Wm
Nelson John
15 Bleichfeld J Bag & Burlap Co
16 Barrow Alonzo
Goodman Aletha
19 Carn Jas
Gordon Olar
20 Felman Louis
Fields Otto
21 Ortenberg Sol gro
Madison intersects
24 Goldfarb Abr © gro
Harris John
Shannon Thos
Johnson Emma Mrs

Books, School Supplies, Kindergarten Materials 222 Delaware Av.

59th YEAR—THINGS TO WEAR and THINGS FOR T

BARDOL
" Henry M real est r48 E Northrup pl
" Lucy L clk h293 E Utica
" Raymond D bkpr Marine Trust Co res Depew N Y
" Theresa (wid Frank) paints and varnishes 154 William h do
Bardold Caroline dom h126 Chester
" Mildred dom r126 Chester
Bardon John clk D & L W R R Co h78 St Louis
" Sallie sten Hotel Statler r1157 Michigan av
Bardonaro Nicholas shoe repr 339 Connecticut h 112 Hudson
Bardos Bertalan L blksmith h140 Ontario
Bardotz Albert bkbndr Bunce-Kinder Co r224 Walden av
" Paul bkbndr Matthews-Northrup Wks h224 Walden av
Bardwell Frank mech r909 7th
Bardzik John gluer h110 Moselle
" Rose (wid Michl) h rear 325 Koons av
" Stella floorwmn r rear 325 Koons av
Bare Adam elev opr r71 Swan
Barecca Jos barber h102 7th
" Nicholas lab h102 7th
Bareiss Gottlieb tinsmith Aug Feine & Sons Co h762 Michigan av
Barek Jos P (Buffalo Wire Frame Co) h56 Davis
Barendt Aug lab r23 Alwin
" Augusta (wid Fred) h23 Alwin
Barenthaler Barbara E phone opr r94 Harvard pl
" Edmund formn Elmwood Const Co h29 Lemon
" Frank L formn h69 Maple
" John E formn Elmwood Const Co r69 Maple
" Peter H treas Elmwood Construction Co h207 Lovering av
" Peter H jr inspr h94 Harvard pl
Barenwald John C chauf r60 Walden av
Bareo Martin J lathe hd r44 Spruce
Baresi Christ r206 7th
" Jos shoe shiner r206 7th
" Mariantonia (wid Francisco) h206 7th
Baresel Louis eng h146 Baitz av
" Wm A eng h248 May
Barfield Chas C formn h132 Rano
' Homer lab h164 Walnut
Bargar Bertha R sten r31 Wood
' Clayton T drugs 238 Lexington av h248 do
BARGAR EDGAR N, Druggist 315 Pennsylvania, Phone Tupper 2058, h29 Chatham, Phone Riverside 8965
' Edw bkpr h31 Wood
' Emery J pharm Danl J Naples r255 Breckenridge
' Floyd L drugs 472 Normal av h6 Claremont av
' Portia L sten Est B C Rumsey r551 Richmond
' Victor H (Barnes & Bargar) h42 Shoreham blvd
' W Emerson mgr Bankers Life Co h551 Richmond av
Barger Bertha R sec to Adolf F Schumm r31 Wood av
' Edw bkpr Mohawk Products Co r31 Wood
Bargmann Adelbert orderly Buff City Hosp r93 Watson
' Agnes D clk r93 Watson
' Anita nurse Memorial Hosp r93 Watson
' Erna D nurse Erie Co Home and Hosp r93 Watson
Helmuth carp r93 Watson
Madalene student nurse r93 Watson
Rudolph tchr r93 Watson
Ruth M clk r93 Watson
Bargnesi Domizio lab h rear 236 S Division
Barhyte Wm F hat renovating 1297 Michigan av h199 Laurel
Baricisio Andrew lab r439 N Division
Dominick lab h439 N Division
Barie see also Barrie and Barry
' Amelia (wid Louis) h315 Walnut
' Carmetia waiter r141 Potters Corners rd
' Edw hlpr A Victor & Co h239 Burgard pl
' Eleanora nurse Deaconess Hospital
' Emma B (wid Peter) clk W C Hammond h403 Herman
Jacob H formn Penn R R h141 Potters Corners rd

BARILE
Barile Jas auto mech h83 10th
" Micheli lab h rear 203 7th
" Saml tailor h141 Virginia
" Vincenzo lab h141 Virginia
Barili Leon J slsmn h290 Esser av
Barilko Michl lab h41 Kail
Barish Moses O slsmn h310 Hartwell rd
Barisko Nicholas hlpr r272 Myrtle av
Baritot Frank J asst chf clk N Y C R R res Athol Springs N Y
" Geo J purch agt Cary Safe Co h190 Breckenridge
" Louis J carrier P O h213 Breckenridge
" Wm E clk Eastern Grain Mill & Elev Corp res Athol Springs N Y
Bark Wm janitor r375 Breckenridge
Barka Jos lab h39 Clay
Barkanier C A inventor r45 N Pearl
Barkdall John pkr r63 Alma av
Barker Anna A office mgr Wm Eastwood & Son Co r467 Massachusetts av
" Bernard A slsmn r30 Como av
" Bessie r44 Gelston
" Byron W service eng Riley Stoker Corp h12 North Pearl
" Carlton F slsmn r106 Herkimer
" Chas car repr h1825 Bailey av
" Chas chauf h386 E Utica
" Chas swtchmn h44 Gelston
" Chas R slsmn Stewart-Warner Products Service Sta h1285 Jefferson av
" Chester M asst mgr Atlas Portland Cement Co h186 Norwalk
" Clifford carp h380 N Division
" Earle I miler h111 Wesley av
" Eliza smstrs L L Berger Inc r254 Parkdale
" Eliz confr 1146 Lovejoy r215 Gold
" Ernest H h670 Ontario
" Ethel Mrs beauty parlor r Hotel Markeen
" Eva (wid Harry M) r89 Hodge av
" Fanny h887 West av
" Frank M supt L V R R h485 Ashland av
" Frank W slsmn h106 Herkimer
" Fred clk J T Snyder h49 Johnson Park
" Fred P formn U S Lighthouse Service res Eden N Y
" Fredk C restr 1865 Bailey av h1825 do
" Geo police D L & W R R h308 Fargo av
" Geo hlpr Markel Cleaning & Dyeing Wks Inc r467 Massachusetts av
" Geo W mgr h78 Tioga
" Geo W trainmn h75 Amber
" Gerald concretewkr h rear 302 Carolina
" Gladys phone opr r308 Parkdale av
" Harry J autowkr Ford Motor Co h27 Galloway
" Harry W (Dick's Patent Mailers) h168 Mariner
" Helen L (wid Hamilton S) r1193 Niagara
" Henry H clk r1193 Niagara
" Howard T asst chf W U Tel Co r33 Coe pl
" Jacob soft drinks 1633 Broadway h do
" Jas slsmn H J Herbold h485 W Utica
" Jas I eng h604 McKinley pkwy
" Jane (Jane Barber's Beauty Parlor) h52 Goodell
" Jessie McC (wid Walter C) h15 Dorchester rd
" John eng h125 St Joseph
" John supt h175 Como av
" John C eng h215 Gold
" J Archie Rev pastor Hedstrom Memorial Baptist Ch h205 Sumner pl
" J Arth chauf h298 Maryland
" Laura H r1193 Niagara
" Lauren maintenancemn r433 West av
" Linus S mgr John G Unterecker r169 E Delavan av
" Margt r1825 Bailey av
" Mary Mrs r30 Como av
" Neil clk r1, 27 Galloway
" Nettie J (wid Frank W) h106 Herkimer
" Ralph E chauf h147 Arkansas
" Robt H h57 Johnson pk
" Robt W slsmn Robertson-C Elec Co r485 Ashland av
" Roland S (Great Lakes Rubber Co) res Eden N Y
" Russell radio expert 378 Riley h do

CONSULT THE

TP	Adjoining	Source
✓	✓	Polk-Clement Directory Co.,

N PEARL ST 1925

SCHWAN
Schwan Arth J driver Mohn & Hunter Co r29 Dorris
" Carl tinsmith h1002 E Ferry
" Carl C clk r1002 E Ferry
" Clara wrapper J N Adam & Co r1002 E Ferry
" Herman chauf h3 Massachusetts av
" Jas W clk Ford Motor Co h150 Victoria av
" John G mach Bureau of Water h29 Dorris
" Mathilda routing aide W U Tel Co r1002 E Ferry
" Wm A with Ford Motor Co 826 E Delavan av
" Wm F litho r29 Dorris av
Schwander Bertha (wid Jacob) r602 Marilla
" Edw boxer h610 Marilla
" Herman A asst supt r449 Riley
" Willard C slsmn Ward & Ward Inc h81 Orange
Schwandt Arth W mach r112 Scoville av
" Elsie belt weaver r112 Scoville av
" Evald firemn r112 Scoville av
" Otto P tanner G F Zeller's Sons Inc h112 Scoville
Schwanekamp see also Swanekamp
" Anna D clk Hens & Kelly Co r105 Carlyle av
" Bernhardt carp h612 Howard
" Caroline (wid Bernard) r121 Lovejoy
" Chas H supt Wm Henrich's Sons Co h53 Rawlins
" Christina (wid Wm) h89 Woeppel
" Edw G metalwkr r174 Lemon
" Gerhard repr h174 Lemon
" Henry J inspr h977 Lovejoy
" Isabelle sten r83 Urban
" John carp h89 Woeppel
" John E bkpr Liberty Bank r52 Sussex
" John W slsmn Theo S Buerger & Sons Inc h52 Sussex av
" Jos H mach opr E M Hager & Sons Co h83 Urban
" Loretta sten r174 Lemon
" Mary A weaver r105 Carlyle av
" Valentine carp h525 Clinton
" Valentine L mach Olin Gas Engine Co h22 Kenova pl
" Wm carp r525 Clinton
" Wm J coml artist Moss-Chase Co res Eggertsville N Y
Schwank Chas H acct h51 15th
" Irma bkpr Manhattan Silk Co h557 Potomac av
Schwanke Edw E formn r214 O'Connell av
" Fred W brkmn h1142 Bailey av
" Henry E acct h30 Fennimore av
" John E br mgr Geo Herold & Sons h41 Yale pl
" Michl lab h30 Central av
" Otto lab r30 Central av
" Wm F chiropractor 235 Connecticut h do
Schwarb Clara J mus tchr 267 W Utica h531 do
" Florence mus tchr r531 E Utica
" Frank J slsmn Roesch & Klinck h699 Best
" Mary M (wid Fred M) h531 E Utica
Schwarcman Alex Dr chf chemist Spencer, Kellogg & Sons Inc r University Club
Schwartz see also Schwarz and Swartz
" Abr tailor h428 Glenwood av
" Adam reprmn Atterbury Motor Car Co r67 Mohr
" Adelaide A clk Marine Trust Co r39 Millicent av
" Adolph msngr W A Jone Optical Co r28 Monroe
" Albert chauf h1274 Bailey av
" Albert hlpr r576 Spring
" Albert mach opr r407 Madison
" Albert J v-pres-sec McGarl, Schwartz & Miller Inc res East Aurora N Y
" Alf C mach r216 Masten av
" Amelia r83 Marigold av
" Anna (wid Isadore) ladies' furngs 1042 Grant h1047 do
" Anna (wid Oscar) h298 Ideal
" Anna Mrs h85 Crestwood av
" Anna r233 Shumway
" Anna slswn r248 Benzinger

SCHWARTZ
" Anna smstrs P E Streich r547 N Oaks
" Anthony mach h67 Mohr
" Anthony C mech h218 Monroe
" Anthony J spl officer h127 Merrimac
" Anthony R chauf h263 Colorado av
" Arlene D Mrs delicatessen 344 E Delavan av r346 do
" Arth mach h36 A
" Aug r446 Dewitt
" Barbara (wid John) h547 N Oak
" Belle tchr h66 Hoyt
" Benj P h159 Lexington av
" Bennett shoe repr 267 Amherst h do
" Bernard electn h29 Kane
" Bernard junk h348 Colvin
" Bernard B lawyer r85 Crestwood av
SCHWARTZ BERNARD CIGAR CORP, Norris R Treble Br Mgr, Wholesale Cigars, Distributors "R G Dun" Cigars 149-51 E Genesee, Phone Seneca 8967
" Bertha bkpr Robinson & Gentile r428 Glenwood av
" Bertha J drsmkr 12 Regina pl r do
" Bertha L (wid Wm) h18 Nevada av
" Blanch clk r374 Rhode Island
" Carl A ins r12 N Pearl
" Caroline E mus tchr r39 Millicent av
" Cath buyer J J Siegrist & Co r211 Howard
" Chas butcher h44 B
" Chas mgr h386 Hickory
" Chas tinsmith r407 Madison
" Chas F slsmn W Bergman Hdw Co h397 Minnesota av
" Chas P slsmn M A Reich r374 Rhode Island
" Clarence slsmn r203 Waverly
" Clemeno P electn r12 Regina pl
" Danl F shipper h1, 66 Armin pl
" David fruits h12 Brown
" David mach h77 Verplanck
" Dorothea E tchr P S h113 19th
" Dorothy nurse h252 Adams
" Edw dentist 1234 Fillmore av h202 Woodward av
" Edw formn R W Jones h216 Masten
" Edw lawyer 518 Prudential bldg r259 Cedar
" Edw tiremkr r524 Winslow av
" Edw B mach hd Watkins Commercial Body Corp r81 Roebling av
" Edw C r206 Woodward av
" Edw J waiter h20 Ralph pl
" Edw L tmstr r216 Masten av
" Edwin T tinsmith h303 Minnesota av
" Eleanor slswn r524 Winslow av
" Eliz J (wid Geo W) h216 Masten av
" Eliz M r12 N Pearl
" Ella slswn Hens & Kelly Co r524 Winslow av
" Elmer slsmn Loose-Wiles Biscuit Co r440 Genesee
" Emanuel J archt 608 Mutual Life bldg h323 Grant
" Emma slswn Charles Inc r56 Kail
" Esther C student r39 Millicent av
" Esther M tchr P S h43 Waverly
" Florence shopper Gomez-Cutler Inc r875 Northampton
" Frank baker r82 Box av
" Frank hlpr Champ Switch Co r1010 Abbott rd
" Frank mtrmn h1567 Seneca
" Frank pntr h205 Person
" Frank retinner Republic Metalware Co h233 Watson
" Frank welder U S Aluminum Co r682 Sycamore
" Frank J clk r216 Masten av
" Frank W (Schwartz Rubber Co) h159 Wellington rd
" Fredk carp h521 Cambridge av
" Fred bottler G Lang Brewery r404 Adams
" Geo r388 Prospect av
" Geo h682 Sycamore
" Geo blrmkr r248 Benzinger
" Geo electn J N Adam & Co r426 Monroe
" Geo factory wkr h rear 82 Box av
" Geo slsmn G H Poppenberg r34 Carlton
" Geo lab h407 Madison
" Geo mech Nokol Buffalo Corp h609 Adams
" Geo A mach r407 Madison

¶ Dr. Johnson, of dictionary fame, said that a man should keep his

¶ New customers must be obtained to replace those who discontinue be-

TP	Adjoining	Source
✓	✓	Polk-Clement Directory Co.,

N PEARL ST 1925

SCHWARTZ
" Geo E clk h43 Grey
" Geo J bkbndr Matthews-Northrup Works h58 Verplanck
" Geo J slsmn University Club h40 Edna pl
" Geo L pipeftr h1, 95 Spaulding
" Geo W r216 Masten av
" Gertrude r85 Crestwood av
" Harold mach Buff Toy & Tool Works h61 Grey
" Harold J mach h346 E Delavan av
" Harold M slsmn r12 N Pearl
" Harold S electn h103 Prospect av
" Harry clk r261 Hickory
" Harry real est h259 Cedar
" Hazel tel opr r95 Spaulding
" Helen fur fnshr Irving M Rosenblat res Hamburg N Y
" Henry h524 Winslow av
" Henry slsmn r85 Crestwood av
" Henry C mach r216 Masten av
" Henry L Mrs r Hotel Lenox
" Herbert eng Buff Gravel Corp res Tonawanda N Y
" Herman carp h106 Sheffield av
" Herman clk r428 Glenwood av
" Herman C pntr h148 Forest av
" Hermina drsmkr 29 Wadsworth h do
" Hildegard M bkbndr r18 Nevada av
" Howard r13 Lansdale pl
" Ida (wid Morris) h310 Pratt
" Irene E mlnr r16 Goembel av
" Isadore tailor Jos Schwartz r51 Sterling av
" Israel h576 Spring
" Jacob auto bodymkr h187 Lemon
" Jacob baker Ye Old Tyme Baking Co r48 Mortimer
" Jacob W mus tchr 505 Masten av h do
" Jas A porter Broadway Auditorium r614 Humboldt pkway
" Jennie floorwn F W Woolworth Co r310 Pratt
" Jerome student r38 Brinton
" Jerome L pres-treas J L & M H Schwartz h415 Bird
" John agt r261 Hickory
" John barber Jacob Naumann r18 Box av
" John clk P O r216 Masten av
" John lab h454 Fillmore av
" John lab Barber Asphalt Co h108 Kosciusko
" John mach Buff Gravel Corp r42 Edson
" John mach h13 Lansdale pl
" John B h164 Dodge
" John C mill hd h232 Kehr
" John G drftsmn Bley & Lyman res East Aurora N Y
" John J mach r203 Waverly
" John J welder h508 Carlton
" John L h12 N Pearl
" John M pntr h144 Emslie
" John M pntr h614 Humboldt pkwy
" John M G sec Battery & Starter Co Inc res Orchard Park N Y
" Jos h98 Box av
" Jos h974 E Delavan av
" Jos h119 Gilbert av
" Jos r496 Monroe
" Jos h228 Winslow av
" Jos artist Niagara Litho Co h72 Vulcan
" Jos autowkr h75 Wecker
" Jos hlpr r29 Kane
" Jos lab Kensington Davis Corp h225 Herman
" Jos millhd h453 Emslie
" Jos swtchmn h430 Lisbon
" Jos tailor 1658 Main h75 Fordham dr
" Jos tailor h46 Spruce
" Jos A car repr h381 Walnut
" Jos A clk h714 Genesee
" Jos A formn Bureau of Streets h106 Purdy
" Jos E templetmkr h223 Roslyn
" Jos G dectective h1340 E Delavan av
" Julius jwlr r276 Cedar
" Julius H roofer r73 Mulberry
" J Mrs caterer r325 Winslow av
" J L & M H Inc J L Schwartz pres-treas M H Schwartz v-pres-sec ins 474 Ellicott sq
" J Raymond mgr h154 Colvin

SCHWARTZ KARL A, Sec Long Schwartz & Co Inc, h12 North Pearl, Phone Tupper 2752-W
" Lawrence J carp h1340 E Delavan av
" Leo stoker Penn R R r472 Clinton
" Leo M candymkr M A Jackson Co h12 Regina pl
" Leona beauty parlor 502 Washington r138 Best
" Leroy J slsmn Kleinhans Co h147 Leroy av
" Libbie (wid John) h295 Ideal
" Lillian sten Atterbury Motor Car Co r85 Crestwood av
" Lillian B slsldy Peoples Store r428 Glenwood av
" Lillian J clk h48 Locust
" Lillian M r16 Goemble av
" Louis fruits 188 Cedar h261 Hickory
" Louis hlpr r310 Pratt
" Madeline r381 Walnut
" Mae r197 Butler av
" Margt (wid Geo) h14 Oneida
" Margt sten Wm Hengerer Co r82 Box av
" Margt J sten O F Hempel r39 Millicent av
" Marguerite M phone opr r159 Lexington av
" Marion A clk W U Tel Co r61 Grey
" Martha (wid Chas) h875 Northampton
" Martha slsldy F W Woolworth Co r67 Mohr
" Mary (wid Erhard) r46 Edwin pl
" Mary (wid Julius) h381 Walnut
" Mathias H formn h391 Woodlawn av
" Mathias M solr h12 Regina pl
" May smstrs r381 Walnut
" Melvin r66 Hoyt
" Merton H v-pres-sec J L & M H Schwartz r Hotel Lenox
" Minnie clk r521 Cambridge av
" Morris clo clnr 1405 Main h313 Pratt
" Morris huckster h91 Pratt
" Otto H prsmn J W Clement Co h21 Freeman
" Paul (Guttman & Schwartz) h57 Pratt
" Pauline fruits Broadway Mkt r12 Brown
" Pearl opr Postal Tel-Cable Co res East Aurora N Y
" Peter J exp msngr h39 Millicent av
" Raymond steamftr h104 Ash
" Raymond F sheet metalwkr 123 Maple h do
" Robt E asst slsmgr Wildroot Co h328 Villa av
" Rose r14 Oneida

SCHWARTZ RUBBER CO (Frank W Schwartz), Distributors Diamond Tires 44 E Tupper, Phone Tupper 6164
" Rudolph L (Martin Schwartz) h60 Commonwealth
" Saml r38 E Utica
" Saml clk Albert Hendel r428 Glenwood av
" Saml clk Bergman Tool Mfg Co r29 School
" Saml trav slsmn h38 Brinton
" Saml C h42 College
" Simon fish 307 William h220 Spring
" Sol printer Statler Press h497 Broadway
" Susan M tailoress J L Hudson Co r547 N Oak
" Sybil r428 Glenwood av
" Theo C mach r27 Richlawn av
" Vivian clk r95 Spaulding
" Wm r30 Cornwall
" Wm h158 William
" Wm floor polisher rear 158 Monroe h do
" Wm iron tinner Republic Metalware Co r121 Ivy
" Wm mach h61 Grey
" Wm jr mach r61 Grey
" Wm mach r295 Ideal
" Wm mach h124 Shepard
" Wm plmbr Geo H Drake Inc r14 Oneida
" Wm press hd General Drop Forge Co r735 Broadway
" Wm riveter h269 Gold
" Wm slsmn h233 Shumway
" Wm C slsmn h5-233 Lemon

SCHWARTZ WM F, Commr Dept of Public Works Rooms 1-7 Municipal Bldg, Phone Seneca 1384, h123 Woodward av, Phone Crescent 0077
" Wm H traffic mgr h1, 1117 Abbott rd
" Wm J confr store 127 E North h do
" Wm M mech h402 Spring

EDWARD F.

Books, School Supplies, Kindergarten Materials 222 Delaware Av.

59th YEAR—THINGS TO WEAR and THINGS FOR T

BARDOL
" Henry M real est r48 E Northrup pl
" Lucy L clk h293 E Utica
" Raymond D bkpr Marine Trust Co res Depew N Y
" Theresa (wid Frank) paints and varnishes 154 William h do
Bardold Caroline dom h126 Chester
" Mildred dom r126 Chester
Bardon John clk D & L W R R Co h78 St Louis
" Sallie sten Hotel Statler r1157 Michigan av
Bardonaro Nicholas shoe repr 339 Connecticut h 112 Hudson
Bardos Bertalan L blksmith h140 Ontario
Bardotz Albert bkbndr Bunce-Kinder Co r224 Walden av
" Paul bkbndr Matthews-Northrup Wks h224 Walden av
Bardwell Frank mech r909 7th
Bardzik John gluer h110 Moselle
" Rose (wid Michl) h rear 325 Koons av
" Stella floorwmn r rear 325 Koons av
Bare Adam elev opr r71 Swan
Barecca Jos barber h102 7th
" Nicholas lab h102 7th
Bareiss Gottlieb tinsmith Aug Feine & Sons Co h762 Michigan av
Barek Jos P (Buffalo Wire Frame Co) h56 Davis
Barendt Aug lab r23 Alwin
" Augusta (wid Fred) h23 Alwin
Barenthaler Barbara E phone opr r94 Harvard pl
" Edmund formn Elmwood Const Co h29 Lemon
" Frank L formn h69 Maple
" John E formn Elmwood Const Co r69 Maple
" Peter H treas Elmwood Construction Co h207 Lovering av
" Peter H jr inspr h94 Harvard pl
Barenwald John C chauf r60 Walden av
Bareo Martin J lathe hd r44 Spruce
Baresi Christ r206 7th
" Jos shoe shiner r206 7th
" Mariantonia (wid Francisco) h206 7th
Baresel Louis eng h146 Baltz av
" Wm A eng h248 May
Barfield Chas C formn h132 Rano
' Homer lab h164 Walnut
Bargar Bertha R sten r31 Wood
' Clayton T drugs 238 Lexington av h248 do
BARGAR EDGAR N, Druggist 315 Pennsylvania, Phone Tupper 2058, h29 Chatham, Phone Riverside 8965
' Edw bkpr h31 Wood
' Emery J pharm Danl J Naples r255 Breckenridge
' Floyd L drugs 472 Normal av h6 Claremont av
' Portia L sten Est B C Rumsey r551 Richmond
' Victor H (Barnes & Bargar) h42 Shoreham blvd
' W Emerson mgr Bankers Life Co h551 Richmond av
Barger Bertha R sec to Adolf F Schumm r31 Wood av
' Edw bkpr Mohawk Products Co r31 Wood
Bargmann Adelbert orderly Buff City Hosp r93 Watson
' Agnes D clk r93 Watson
' Anita nurse Memorial Hosp r93 Watson
' Erna D nurse Erie Co Home and Hosp r93 Watson
Helmuth carp r93 Watson
Madalene student nurse r93 Watson
Rudolph tchr r93 Watson
Ruth M clk r93 Watson
Bargnesi Domizio lab h rear 236 S Division
Barhyte Wm F hat renovating 1297 Michigan av h199 Laurel
Baricisio Andrew lab r439 N Division
Dominick lab h439 N Division
Barie see also Barrie and Barry
' Amelia (wid Louis) h315 Walnut
' Carmetia waiter r141 Potters Corners rd
' Edw hlpr A Victor & Co h239 Burgard pl
' Eleanora nurse Deaconess Hospital
' Emma B (wid Peter) clk W C Hammond h403 Herman
Jacob H formn Penn R R h141 Potters Corners rd

BARILE
Barile Jas auto mech h83 10th
" Micheli lab h rear 203 7th
" Saml tailor h141 Virginia
" Vincenzo lab h141 Virginia
Barili Leon J slsmn h290 Esser av
Barilko Michl lab h41 Kail
Barish Moses O slsmn h310 Hartwell rd
Barisko Nicholas hlpr r272 Myrtle av
Baritot Frank J asst chf clk N Y C R R res Athol Springs N Y
" Geo J purch agt Cary Safe Co h190 Breckenridge
" Louis J carrier P O h213 Breckenridge
" Wm E clk Eastern Grain Mill & Elev Corp res Athol Springs N Y
Bark Wm janitor r375 Breckenridge
Barka Jos lab h39 Clay
Barkanier C A inventor r45 N Pearl
Barkdall John pkr r63 Alma av
Barker Anna A office mgr Wm Eastwood & Son Co r467 Massachusetts av
" Bernard A slsmn r30 Como av
" Bessie r44 Gelston
" Byron W service eng Riley Stoker Corp h12 North Pearl
" Carlton F slsmn r106 Herkimer
" Chas car repr h1825 Bailey av
" Chas chauf h386 E Utica
" Chas swtchmn h44 Gelston
" Chas R slsmn Stewart-Warner Products Service Sta h1285 Jefferson av
" Chester M asst mgr Atlas Portland Cement Co h186 Norwalk
" Clifford carp h380 N Division
" Earle I miler h111 Wesley av
" Eliza smstrs L L Berger Inc r254 Parkdale
" Eliz confr 1146 Lovejoy r215 Gold
" Ernest H h670 Ontario
" Ethel Mrs beauty parlor r Hotel Markeen
" Eva (wid Harry M) r89 Hodge av
" Fanny h887 West av
" Frank M supt L V R R h485 Ashland av
" Frank W slsmn h106 Herkimer
" Fred clk J T Snyder h49 Johnson Park
" Fred P formn U S Lighthouse Service res Eden N Y
" Fredk C restr 1865 Bailey av h1825 do
" Geo police D L & W R R h308 Fargo av
" Geo hlpr Markel Cleaning & Dyeing Wks Inc r467 Massachusetts av
" Geo W mgr h78 Tioga
" Geo W trainmn h75 Amber
" Gerald concretewkr h rear 302 Carolina
" Gladys phone opr r308 Parkdale av
" Harry J autowkr Ford Motor Co h27 Galloway
" Harry W (Dick's Patent Mailers) h168 Mariner
" Helen L (wid Hamilton S) r1193 Niagara
" Henry H clk r1193 Niagara
" Howard T asst chf W U Tel Co r33 Coe pl
" Jacob soft drinks 1633 Broadway h do
" Jas slsmn H J Herbold h485 W Utica
" Jas I eng h604 McKinley pkwy
" Jane (Jane Barber's Beauty Parlor) h52 Goodell
" Jessie McC (wid Walter C) h15 Dorchester rd
" John eng h125 St Joseph
" John supt h175 Como av
" John C eng h215 Gold
" J Archie Rev pastor Hedstrom Memorial Baptist Ch h205 Sumner pl
" J Arth chauf h298 Maryland
" Laura H r1193 Niagara
" Lauren maintenancemn r433 West av
" Linus S mgr John G Unterecker r169 E Delavan av
" Margt r1825 Bailey av
" Mary Mrs r30 Como av
" Neil clk r1, 27 Galloway
" Nettie J (wid Frank W) h106 Herkimer
" Ralph E chauf h147 Arkansas
" Robt H h57 Johnson pk
" Robt W slsmn Robertson-C Elec Co r485 Ashland av
" Roland S (Great Lakes Rubber Co) res Eden N Y
" Russell radio expert 378 Riley h do

CONSULT THE

SCHWAN
Schwan Arth J driver Mohn & Hunter Co r29 Dorris
" Carl tinsmith h1002 E Ferry
" Carl C clk r1002 E Ferry
" Clara wrapper J N Adam & Co r1002 E Ferry
" Herman chauf h3 Massachusetts av
" Jas W clk Ford Motor Co h150 Victoria av
" John G mach Bureau of Water h29 Dorris
" Mathilda routing aide W U Tel Co r1002 E Ferry
" Wm A with Ford Motor Co 826 E Delavan av
" Wm F litho r29 Dorris av
Schwander Bertha (wid Jacob) r602 Marilla
" Edw boxer h610 Marilla
" Herman A asst supt r449 Riley
" Willard C slsmn Ward & Ward Inc h81 Orange
Schwandt Arth W mach r112 Scoville av
" Elsie belt weaver r112 Scoville av
" Evald firemn r112 Scoville av
" Otto P tanner G F Zeller's Sons Inc h112 Scoville
Schwanekamp see also Swanekamp
" Anna D clk Hens & Kelly Co r105 Carlyle av
" Bernhardt carp h612 Howard
" Caroline (wid Bernard) r121 Lovejoy
" Chas H supt Wm Henrich's Sons Co h53 Rawlins
" Christina (wid Wm) h89 Woeppel
" Edw G metalwkr r174 Lemon
" Gerhard repr h174 Lemon
" Henry J inspr h977 Lovejoy
" Isabelle sten r83 Urban
" John carp h89 Woeppel
" John E bkpr Liberty Bank r52 Sussex
" John W slsmn Theo S Buerger & Sons Inc h52 Sussex av
" Jos H mach opr E M Hager & Sons Co h83 Urban
" Loretta sten r174 Lemon
" Mary A weaver r105 Carlyle av
" Valentine carp h525 Clinton
" Valentine L mach Olin Gas Engine Co h22 Kenova pl
" Wm carp r525 Clinton
" Wm J coml artist Moss-Chase Co res Eggertsville N Y
Schwank Chas H acct h51 15th
" Irma bkpr Manhattan Silk Co h557 Potomac av
Schwanke Edw E formn r214 O'Connell av
" Fred W brkmn h1142 Bailey av
" Henry E acct h30 Fennimore av
" John E br mgr Geo Herold & Sons h41 Yale pl
" Michl lab h30 Central av
" Otto lab r30 Central av
" Wm F chiropractor 235 Connecticut h do
Schwarb Clara J mus tchr 267 W Utica h531 do
" Florence mus tchr r531 E Utica
" Frank J slsmn Roesch & Klinck h699 Best
" Mary M (wid Fred M) h531 E Utica
Schwarcman Alex Dr chf chemist Spencer, Kellogg & Sons Inc r University Club
Schwartz see also Schwarz and Swartz
" Abr tailor h428 Glenwood av
" Adam reprmn Atterbury Motor Car Co r67 Mohr
" Adelaide A clk Marine Trust Co r39 Millicent av
" Adolph msngr W A Jone Optical Co r28 Monroe
" Albert chauf h1274 Bailey av
" Albert hlpr r576 Spring
" Albert mach opr r407 Madison
" Albert J v-pres-sec McGarl, Schwartz & Miller Inc res East Aurora N Y
" Alf C mach r216 Masten av
" Amelia r83 Marigold av
" Anna (wid Isadore) ladies' furngs 1042 Grant h1047 do
" Anna (wid Oscar) h298 Ideal
" Anna Mrs h85 Crestwood av
" Anna r233 Shumway
" Anna slswn r248 Benzinger

SCHWARTZ
" Anna smstrs P E Streich r547 N Oaks
" Anthony mach h67 Mohr
" Anthony C mech h218 Monroe
" Anthony J spl officer h127 Merrimac
" Anthony R chauf h263 Colorado av
" Arlene D Mrs delicatessen 344 E Delavan av r346 do
" Arth mach h36 A
" Aug r446 Dewitt
" Barbara (wid John) h547 N Oak
" Belle tchr h66 Hoyt
" Benj P h159 Lexington av
" Bennett shoe repr 267 Amherst h do
" Bernard electn h29 Kane
" Bernard junk h348 Colvin
" Bernard B lawyer r85 Crestwood av
SCHWARTZ BERNARD CIGAR CORP, Norris R Treble Br Mgr, Wholesale Cigars, Distributors "R G Dun" Cigars 149-51 E Genesee, Phone Seneca 8967
" Bertha bkpr Robinson & Gentile r428 Glenwood av
" Bertha J drsmkr 12 Regina pl r do
" Bertha L (wid Wm) h18 Nevada av
" Blanch clk r374 Rhode Island
" Carl A ins r12 N Pearl
" Caroline E mus tchr r39 Millicent av
" Cath buyer J J Siegrist & Co r211 Howard
" Chas butcher h44 B
" Chas mgr h386 Hickory
" Chas tinsmith r407 Madison
" Chas F slsmn W Bergman Hdw Co h397 Minnesota av
" Chas P slsmn M A Reich r374 Rhode Island
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" Edw B mach hd Watkins Commercial Body Corp r81 Roebling av
" Edw C r206 Woodward av
" Edw J waiter h20 Ralph pl
" Edw L tmstr r216 Masten av
" Edwin T tinsmith h303 Minnesota av
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" Geo A mach r407 Madison

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1661-1669 MAIN STREET FILLMORE 3414

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" Herman carp h106 Sheffield av
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" Hermina drsmkr 29 Wadsworth h do
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" John L h12 N Pearl
" John M pntr h144 Emslie
" John M pntr h614 Humboldt pkwy
" John M G sec Battery & Starter Co Inc res Orchard Park N Y
" Jos h98 Box av
" Jos h974 E Delavan av
" Jos h119 Gilbert av
" Jos r496 Monroe
" Jos h228 Winslow av
" Jos artist Niagara Litho Co h72 Vulcan
" Jos autowkr h75 Wecker
" Jos hlpr r29 Kane
" Jos lab Kensington Davis Corp h225 Herman
" Jos millhd h453 Emslie
" Jos swtchmn h430 Lisbon
" Jos tailor 1658 Main h75 Fordham dr
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" Jos A clk h714 Genesee
" Jos A formn Bureau of Streets h106 Purdy
" Jos E templetmkr h223 Roslyn
" Jos G dectective h1340 E Delavan av
" Julius jwlr r276 Cedar
" Julius H roofer r73 Mulberry
" J Mrs caterer r325 Winslow av
" J L & M H Inc J L Schwartz pres-treas M H Schwartz v-pres-sec ins 474 Ellicott sq
" J Raymond mgr h154 Colvin

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" Mathias H formn h391 Woodlawn av
" Mathias M solr h12 Regina pl
" May smstrs r381 Walnut
" Melvin r66 Hoyt
" Merton H v-pres-sec J L & M H Schwartz r Hotel Lenox
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" Raymond F sheet metalwkr 123 Maple h do
" Robt E asst slsmgr Wildroot Co h328 Villa av
" Rose r14 Oneida

SCHWARTZ RUBBER CO (Frank W Schwartz), Distributors Diamond Tires 44 E Tupper, Phone Tupper 6164
" Rudolph L (Martin Schwartz) h60 Commonwealth
" Saml r38 E Utica
" Saml clk Albert Hendel r428 Glenwood av
" Saml clk Bergman Tool Mfg Co r29 School
" Saml trav slsmn h38 Brinton
" Saml C h42 College
" Simon fish 307 William h220 Spring
" Sol printer Statler Press h497 Broadway
" Susan M tailoress J L Hudson Co r547 N Oak
" Sybil r428 Glenwood av
" Theo C mach r27 Richlawn av
" Vivian clk r95 Spaulding
" Wm r30 Cornwall
" Wm h158 William
" Wm floor polisher rear 158 Monroe h do
" Wm iron tinner Republic Metalware Co r121 Ivy
" Wm mach h61 Grey
" Wm jr mach r61 Grey
" Wm mach r295 Ideal
" Wm mach h124 Shepard
" Wm plmbr Geo H Drake Inc r14 Oneida
" Wm press hd General Drop Forge Co r735 Broadway
" Wm riveter h269 Gold
" Wm slsmn h233 Shumway
" Wm C slsmn h5-233 Lemon

SCHWARTZ WM F, Commr Dept of Public Works Rooms 1-7 Municipal Bldg, Phone Seneca 1384, h123 Woodward av, Phone Crescent 0077
" Wm H traffic mgr h1, 1117 Abbott rd
" Wm J confr store 127 E North h do
" Wm M mech h402 Spring

EDWARD F.

TP	Adjoining	Source
✓	✓	Polk-Clement Directory Co.,

Pearl Pl 1925

Books, School Supplies, Kindergarten Materials 222 Delaware Av.

59th YEAR—THINGS TO WEAR and THINGS FOR T

BARDOL
" Henry M real est r48 E Northrup pl
" Lucy L clk h293 E Utica
" Raymond D bkpr Marine Trust Co res Depew N Y
" Theresa (wid Frank) paints and varnishes 154 William h do
Bardold Caroline dom h126 Chester
" Mildred dom r126 Chester
Bardon John clk D & L W R R Co h78 St Louis
" Sallie sten Hotel Statler r1157 Michigan av
Bardonaro Nicholas shoe repr 339 Connecticut h 112 Hudson
Bardos Bertalan L blksmith h140 Ontario
Bardotz Albert bkbndr Bunce-Kinder Co r224 Walden av
" Paul bkbndr Matthews-Northrup Wks h224 Walden av
Bardwell Frank mech r909 7th
Bardzik John gluer h110 Moselle
" Rose (wid Michl) h rear 325 Koons av
" Stella floorwmn r rear 325 Koons av
Bare Adam elev opr r71 Swan
Barecca Jos barber h102 7th
" Nicholas lab h102 7th
Bareiss Gottlieb tinsmith Aug Feine & Sons Co h762 Michigan av
Barek Jos P (Buffalo Wire Frame Co) h56 Davis
Barendt Aug lab r23 Alwin
" Augusta (wid Fred) h23 Alwin
Barenthaler Barbara E phone opr r94 Harvard pl
" Edmund formn Elmwood Const Co h29 Lemon
" Frank L formn h69 Maple
" John E formn Elmwood Const Co r69 Maple
" Peter H treas Elmwood Construction Co h207 Lovering av
" Peter H jr inspr h94 Harvard pl
Barenwald John C chauf r60 Walden av
Bareo Martin J lathe hd r44 Spruce
Baresi Christ r206 7th
" Jos shoe shiner r206 7th
" Mariantonia (wid Francisco) h206 7th
Baresel Louis eng h146 Baitz av
" Wm A eng h248 May
Barfield Chas C formn h132 Rano
' Homer lab h164 Walnut
Bargar Bertha R sten r31 Wood
' Clayton T drugs 238 Lexington av h248 do
BARGAR EDGAR N, Druggist 315 Pennsylvania, Phone Tupper 2058, h29 Chatham, Phone Riverside 8965
' Edw bkpr h31 Wood
' Emery J pharm Danl J Naples r255 Breckenridge
' Floyd L drugs 472 Normal av h6 Claremont av
' Portia L sten Est B C Rumsey r551 Richmond
' Victor H (Barnes & Bargar) h42 Shoreham blvd
' W Emerson mgr Bankers Life Co h551 Richmond av
Barger Bertha R sec to Adolf F Schumm r31 Wood av
' Edw bkpr Mohawk Products Co r31 Wood
Bargmann Adelbert orderly Buff City Hosp r93 Watson
' Agnes D clk r93 Watson
' Anita nurse Memorial Hosp r93 Watson
' Erna D nurse Erie Co Home and Hosp r93 Watson
Helmuth carp r93 Watson
Madalene student nurse r93 Watson
Rudolph tchr r93 Watson
Ruth M clk r93 Watson
Bargnesi Domizio lab h rear 236 S Division
Barhyte Wm F hat renovating 1297 Michigan av h199 Laurel
Baricisio Andrew lab r439 N Division
Dominick lab h439 N Division
Barie see also Barrie and Barry
' Amelia (wid Louis) h315 Walnut
' Carmetia waiter r141 Potters Corners rd
' Edw hlpr A Victor & Co h239 Burgard pl
' Eleanora nurse Deaconess Hospital
' Emma B (wid Peter) clk W C Hammond h403 Herman
Jacob H formn Penn R R h141 Potters Corners rd

BARILE
Barile Jas auto mech h83 10th
" Micheli lab h rear 203 7th
" Saml tailor h141 Virginia
" Vincenzo lab h141 Virginia
Barili Leon J slsmn h290 Esser av
Barilko Michl lab h41 Kail
Barish Moses O slsmn h310 Hartwell rd
Barisko Nicholas hlpr r272 Myrtle av
Baritot Frank J asst chf clk N Y C R R res Athol Springs N Y
" Geo J purch agt Cary Safe Co h190 Breckenridge
" Louis J carrier P O h213 Breckenridge
" Wm E clk Eastern Grain Mill & Elev Corp res Athol Springs N Y
Bark Wm janitor r375 Breckenridge
Barka Jos lab h39 Clay
Barkanier C A inventor r45 N Pearl
Barkdall John pkr r63 Alma av
Barker Anna A office mgr Wm Eastwood & Son Co r467 Massachusetts av
" Bernard A slsmn r30 Como av
" ~~Bessie r44 Gelston~~
" Byron W service eng Riley Stoker Corp h12 North Pearl
" Carlton F slsmn r106 Herkimer
" Chas car repr h1825 Bailey av
" Chas chauf h386 E Utica
" Chas swtchmn h44 Gelston
" Chas R slsmn Stewart-Warner Products Service Sta h1285 Jefferson av
" Chester M asst mgr Atlas Portland Cement Co h186 Norwalk
" Clifford carp h380 N Division
" Earle I miler h111 Wesley av
" Eliza smstrs L L Berger Inc r254 Parkdale
" Eliz confr 1146 Lovejoy r215 Gold
" Ernest H h670 Ontario
" Ethel Mrs beauty parlor r Hotel Markeen
" Eva (wid Harry M) r89 Hodge av
" Fanny h887 West av
" Frank M supt L V R R h485 Ashland av
" Frank W slsmn h106 Herkimer
" Fred clk J T Snyder h49 Johnson Park
" Fred P formn U S Lighthouse Service res Eden N Y
" Fredk C restr 1865 Bailey av h1825 do
" Geo police D L & W R R h308 Fargo av
" Geo hlpr Markel Cleaning & Dyeing Wks Inc r467 Massachusetts av
" Geo W mgr h78 Tioga
" Geo W trainmn h75 Amber
" Gerald concretewkr h rear 302 Carolina
" Gladys phone opr r308 Parkdale av
" Harry J autowkr Ford Motor Co h27 Galloway
" Harry W (Dick's Patent Mailers) h168 Mariner
" Helen L (wid Hamilton S) r1193 Niagara
" Henry H clk r1193 Niagara
" Howard T asst chf W U Tel Co r33 Coe pl
" Jacob soft drinks 1633 Broadway h do
" Jas slsmn H J Herbold h485 W Utica
" Jas I eng h604 McKinley pkwy
" Jane (Jane Barber's Beauty Parlor) h52 Goodell
" Jessie McC (wid Walter C) h15 Dorchester rd
" John eng h125 St Joseph
" John supt h175 Como av
" John C eng h215 Gold
" J Archie Rev pastor Hedstrom Memorial Baptist Ch h205 Sumner pl
" J Arth chauf h298 Maryland
" Laura H r1193 Niagara
" Lauren maintenancemn r433 West av
" Linus S mgr John G Unterecker r169 E Delavan av
" Margt r1825 Bailey av
" Mary Mrs r30 Como av
" Neil clk r1, 27 Galloway
" Nettie J (wid Frank W) h106 Herkimer
" Ralph E chauf h147 Arkansas
" Robt H h57 Johnson pk
" Robt W slsmn Robertson-C Elec Co r485 Ashland av
" Roland S (Great Lakes Rubber Co) res Eden N Y
" Russell radio expert 378 Riley h do

CONSULT THE

TP	Adjoining	Source
✓	✓	Polk-Clement Directory Co.,

Pearl Pl 1925

SCHWAN
Schwan Arth J driver Mohn & Hunter Co r29 Dorris
" Carl tinsmith h1002 E Ferry
" Carl C clk r1002 E Ferry
" Clara wrapper J N Adam & Co r1002 E Ferry
" Herman chauf h3 Massachusetts av
" Jas W clk Ford Motor Co h150 Victoria av
" John G mach Bureau of Water h29 Dorris
" Mathilda routing aide W U Tel Co r1002 E Ferry
" Wm A with Ford Motor Co 826 E Delavan av
" Wm F litho r29 Dorris av
Schwander Bertha (wid Jacob) r602 Marilla
" Edw boxer h610 Marilla
" Herman A asst supt r449 Riley
" Willard C slsmn Ward & Ward Inc h81 Orange
Schwandt Arth W mach r112 Scoville av
" Elsie belt weaver r112 Scoville av
" Evald firemn r112 Scoville av
" Otto P tanner G F Zeller's Sons Inc h112 Scoville
Schwanekamp see also Swanekamp
" Anna D clk Hens & Kelly Co r105 Carlyle av
" Bernhardt carp h612 Howard
" Caroline (wid Bernard) r121 Lovejoy
" Chas H supt Wm Henrich's Sons Co h53 Rawlins
" Christina (wid Wm) h89 Woeppel
" Edw G metalwkr r174 Lemon
" Gerhard repr h174 Lemon
" Henry J inspr h977 Lovejoy
" Isabelle sten r83 Urban
" John carp h89 Woeppel
" John E bkpr Liberty Bank r52 Sussex
" John W slsmn Theo S Buerger & Sons Inc h52 Sussex av
" Jos H mach opr E M Hager & Sons Co h83 Urban
" Loretta sten r174 Lemon
" Mary A weaver r105 Carlyle av
" Valentine carp h525 Clinton
" Valentine L mach Olin Gas Engine Co h22 Kenova pl
" Wm carp r525 Clinton
" Wm J coml artist Moss-Chase Co res Eggertsville N Y
Schwank Chas H acct h51 15th
" Irma bkpr Manhattan Silk Co h557 Potomac av
Schwanke Edw E formn r214 O'Connell av
" Fred W brkmn h1142 Bailey av
" Henry E acct h30 Fennimore av
" John E br mgr Geo Herold & Sons h41 Yale pl
" Michl lab h30 Central av
" Otto lab r30 Central av
" Wm F chiropractor 235 Connecticut h do
Schwarb Clara J mus tchr 267 W Utica h531 do
" Florence mus tchr r531 E Utica
" Frank J slsmn Roesch & Klinck h699 Best
" Mary M (wid Fred M) h531 E Utica
Schwarcman Alex Dr chf chemist Spencer, Kellogg & Sons Inc r University Club
Schwartz see also Schwarz and Swartz
" Abr tailor h428 Glenwood av
" Adam reprmn Atterbury Motor Car Co r67 Mohr
" Adelaide A clk Marine Trust Co r39 Millicent av
" Adolph msngr W A Jone Optical Co r28 Monroe
" Albert chauf h1274 Bailey av
" Albert hlpr r576 Spring
" Albert mach opr r407 Madison
" Albert J v-pres-sec McGarl, Schwartz & Miller Inc res East Aurora N Y
" Alf C mach r216 Masten av
" Amelia r83 Marigold av
" Anna (wid Isadore) ladies' furngs 1042 Grant h1047 do
" Anna (wid Oscar) h298 Ideal
" Anna Mrs h85 Crestwood av
" Anna r233 Shumway
" Anna slswn r248 Benzinger

SCHWARTZ
" Anna smstrs P E Streich r547 N Oaks
" Anthony mach h67 Mohr
" Anthony C mech h218 Monroe
" Anthony J spl officer h127 Merrimac
" Anthony R chauf h263 Colorado av
" Arlene D Mrs delicatessen 344 E Delavan av r346 do
" Arth mach h36 A
" Aug r446 Dewitt
" Barbara (wid John) h547 N Oak
" Belle tchr h66 Hoyt
" Benj P h159 Lexington av
" Bennett shoe repr 267 Amherst h do
" Bernard electn h29 Kane
" Bernard junk h348 Colvin
" Bernard B lawyer r85 Crestwood av
SCHWARTZ BERNARD CIGAR CORP, Norris R Treble Br Mgr, Wholesale Cigars, Distributors "R G Dun" Cigars 149-51 E Genesee, Phone Seneca 8967
" Bertha bkpr Robinson & Gentile r428 Glenwood av
" Bertha J drsmkr 12 Regina pl r do
" Bertha L (wid Wm) h18 Nevada av
" Blanch clk r374 Rhode Island
" Carl A ins r12 N Pearl
" Caroline E mus tchr r39 Millicent av
" Cath buyer J J Siegrist & Co r211 Howard
" Chas butcher h44 B
" Chas mgr h386 Hickory
" Chas tinsmith r407 Madison
" Chas F slsmn W Bergman Hdw Co h397 Minnesota av
" Chas P slsmn M A Reich r374 Rhode Island
" Clarence slsmn r203 Waverly
" Clemeno P electn r12 Regina pl
" Danl F shipper h1, 66 Armin pl
" David fruits h12 Brown
" David mach h77 Verplanck
" Dorothea E tchr P S h113 19th
" Dorothy nurse h252 Adams
" Edw dentist 1234 Fillmore av h202 Woodward av
" Edw formn R W Jones h216 Masten
" Edw lawyer 518 Prudential bldg r259 Cedar
" Edw tiremkr r524 Winslow av
" Edw B mach hd Watkins Commercial Body Corp r81 Roebling av
" Edw C r206 Woodward av
" Edw J waiter h20 Ralph pl
" Edw L tmstr r216 Masten av
" Edwin T tinsmith h303 Minnesota av
" Eleanor slswn r524 Winslow av
" Eliz J (wid Geo W) h216 Masten av
" Eliz M r12 N Pearl
" Ella slswn Hens & Kelly Co r524 Winslow av
" Elmer slsmn Loose-Wiles Biscuit Co r440 Genesee
" Emanuel J archt 608 Mutual Life bldg h323 Grant
" Emma slswn Charles Inc r56 Kail
" Esther C student r39 Millicent av
" Esther M tchr P S h43 Waverly
" Florence shopper Gomez-Cutler Inc r875 Northampton
" Frank baker r82 Box av
" Frank hlpr Champ Switch Co r1010 Abbott rd
" Frank mtrmn h1567 Seneca
" Frank pntr h205 Person
" Frank retinner Republic Metalware Co h233 Watson
" Frank welder U S Aluminum Co r682 Sycamore
" Frank J clk r216 Masten av
" Frank W (Schwartz Rubber Co) h159 Wellington rd
" Fredk carp h521 Cambridge av
" Fred bottler G Lang Brewery r404 Adams
" Geo r388 Prospect av
" Geo h682 Sycamore
" Geo blrmkr r248 Benzinger
" Geo electn J N Adam & Co r426 Monroe
" Geo factory wkr h rear 82 Box av
" Geo slsmn G H Poppenberg r34 Carlton
" Geo lab h407 Madison
" Geo mech Nokol Buffalo Corp h609 Adams
" Geo A mach r407 Madison

¶ Dr. Johnson, of dictionary fame, said that a man should keep his

¶ New customers must be obtained to replace those who discontinue be-

TP	Adjoining	Source
✓	✓	Polk-Clement Directory Co.,

Pearl Pl 1925

SCHWARTZ
" Geo E clk h43 Grey
" Geo J bkbndr Matthews-Northrup Works h58 Verplanck
" Geo J slsmn University Club h40 Edna pl
" Geo L pipeftr h1, 95 Spaulding
" Geo W r216 Masten av
" Gertrude r85 Crestwood av
" Harold mach Buff Toy & Tool Works h61 Grey
" Harold J mach h346 E Delavan av
" Harold M slsmn r12 N Pearl
" Harold S electn h103 Prospect av
" Harry clk r261 Hickory
" Harry real est h259 Cedar
" Hazel tel opr r95 Spaulding
" Helen fur fnshr Irving M Rosenblat res Hamburg N Y
" Henry h524 Winslow av
" Henry slsmn r85 Crestwood av
" Henry C mach r216 Masten av
" Henry L Mrs r Hotel Lenox
" Herbert eng Buff Gravel Corp res Tonawanda N Y
" Herman carp h106 Sheffield av
" Herman clk r428 Glenwood av
" Herman C pntr h148 Forest av
" Hermina drsmkr 29 Wadsworth h do
" Hildegard M bkbndr r18 Nevada av
" Howard r13 Lansdale pl
" Ida (wid Morris) h310 Pratt
" Irene E mlnr r16 Goembel av
" Isadore tailor Jos Schwartz r51 Sterling av
" Israel h576 Spring
" Jacob auto bodymkr h187 Lemon
" Jacob baker Ye Old Tyme Baking Co r48 Mortimer
" Jacob W mus tchr 505 Masten av h do
" Jas A porter Broadway Auditorium r614 Humboldt pkway
" Jennie floorwn F W Woolworth Co r310 Pratt
" Jerome student r38 Brinton
" Jerome L pres-treas J L & M H Schwartz h415 Bird
" John agt r261 Hickory
" John barber Jacob Naumann r18 Box av
" John clk P O r216 Masten av
" John lab h454 Fillmore av
" John lab Barber Asphalt Co h108 Kosciusko
" John mach Buff Gravel Corp r42 Edson
" John mach h13 Lansdale pl
" John B h164 Dodge
" John C mill hd h232 Kehr
" John G drftsmn Bley & Lyman res East Aurora N Y
" John J mach r203 Waverly
" John J welder h508 Carlton
" John L h12 N Pearl
" John M pntr h144 Emslie
" John M pntr h614 Humboldt pkwy
" John M G sec Battery & Starter Co Inc res Orchard Park N Y
" Jos h98 Box av
" Jos h974 E Delavan av
" Jos h119 Gilbert av
" Jos r496 Monroe
" Jos h228 Winslow av
" Jos artist Niagara Litho Co h72 Vulcan
" Jos autowkr h75 Wecker
" Jos hlpr r29 Kane
" Jos lab Kensington Davis Corp h225 Herman
" Jos millhd h453 Emslie
" Jos swtchmn h430 Lisbon
" Jos tailor 1658 Main h75 Fordham dr
" Jos tailor h46 Spruce
" Jos A car repr h381 Walnut
" Jos A clk h714 Genesee
" Jos A formn Bureau of Streets h106 Purdy
" Jos E templetmkr h223 Roslyn
" Jos G dectective h1340 E Delavan av
" Julius jwlr r276 Cedar
" Julius H roofer r73 Mulberry
" J Mrs caterer r325 Winslow av
" J L & M H Inc J L Schwartz pres-treas M H Schwartz v-pres-sec ins 474 Ellicott sq
" J Raymond mgr h154 Colvin

SCHWARTZ KARL A, Sec Long Schwartz & Co Inc, h12 North Pearl, Phone Tupper 2752-W
" Lawrence J carp h1340 E Delavan av
" Leo stoker Penn R R r472 Clinton
" Leo M candymkr M A Jackson Co h12 Regina pl
" Leona beauty parlor 502 Washington r138 Best
" Leroy J slsmn Kleinhans Co h147 Leroy av
" Libbie (wid John) h295 Ideal
" Lillian sten Atterbury Motor Car Co r85 Crestwood av
" Lillian B slsldy Peoples Store r428 Glenwood av
" Lillian J clk h48 Locust
" Lillian M r16 Goemble av
" Louis fruits 188 Cedar h261 Hickory
" Louis hlpr r310 Pratt
" Madeline r381 Walnut
" Mae r197 Butler av
" Margt (wid Geo) h14 Oneida
" Margt sten Wm Hengerer Co r82 Box av
" Margt J sten O F Hempel r39 Millicent av
" Marguerite M phone opr r159 Lexington av
" Marion A clk W U Tel Co r61 Grey
" Martha (wid Chas) h875 Northampton
" Martha slsldy F W Woolworth Co r67 Mohr
" Mary (wid Erhard) r46 Edwin pl
" Mary (wid Julius) h381 Walnut
" Mathias H formn h391 Woodlawn av
" Mathias M solr h12 Regina pl
" May smstrs r381 Walnut
" Melvin r66 Hoyt
" Merton H v-pres-sec J L & M H Schwartz r Hotel Lenox
" Minnie clk r521 Cambridge av
" Morris clo clnr 1405 Main h313 Pratt
" Morris huckster h91 Pratt
" Otto H prsmn J W Clement Co h21 Freeman
" Paul (Guttman & Schwartz) h57 Pratt
" Pauline fruits Broadway Mkt r12 Brown
" Pearl opr Postal Tel-Cable Co res East Aurora N Y
" Peter J exp msngr h39 Millicent av
" Raymond steamftr h104 Ash
" Raymond F sheet metalwkr 123 Maple h do
" Robt E asst slsmgr Wildroot Co h328 Villa av
" Rose r14 Oneida

SCHWARTZ RUBBER CO (Frank W Schwartz), Distributors Diamond Tires 44 E Tupper, Phone Tupper 6164
" Rudolph L (Martin Schwartz) h60 Commonwealth
" Saml r38 E Utica
" Saml clk Albert Hendel r428 Glenwood av
" Saml clk Bergman Tool Mfg Co r29 School
" Saml trav slsmn h38 Brinton
" Saml C h42 College
" Simon fish 307 William h220 Spring
" Sol printer Statler Press h497 Broadway
" Susan M tailoress J L Hudson Co r547 N Oak
" Sybil r428 Glenwood av
" Theo C mach r27 Richlawn av
" Vivian clk r95 Spaulding
" Wm r30 Cornwall
" Wm h158 William
" Wm floor polisher rear 158 Monroe h do
" Wm iron tinner Republic Metalware Co r121 Ivy
" Wm mach h61 Grey
" Wm jr mach r61 Grey
" Wm mach r295 Ideal
" Wm mach h124 Shepard
" Wm plmbr Geo H Drake Inc r14 Oneida
" Wm press hd General Drop Forge Co r735 Broadway
" Wm riveter h269 Gold
" Wm slsmn h233 Shumway
" Wm C slsmn h5-233 Lemon

SCHWARTZ WM F, Commr Dept of Public Works Rooms 1-7 Municipal Bldg, Phone Seneca 1384, h123 Woodward av, Phone Crescent 0077
" Wm H traffic mgr h1, 1117 Abbott rd
" Wm J confr store 127 E North h do
" Wm M mech h402 Spring

EDWARD F.

APPENDIX E

MUNICIPAL RECORDS

MAYOR
BYRON W. BROWN

CITY OF BUFFALO

FREEDOM OF INFORMATION LAW RECORDS REQUEST FORM

Date of Application: 3 / 16 / 18

Under the provisions of Article 6, Sections 84 -90, of the New York State Public Officers Law entitled, the FREEDOM OF INFORMATION LAW (FOIL), I hereby request the records or portions thereof that I have reasonably described in Part "B" of this form.

PART A - APPLICANT INFORMATION

1. Name of Applicant: Chad Schuster

2. Company Name: Turnkey Environmental Restoration, LLC

3. Type of Business:

- ☐ Government Entity
- ☐ Law Firm
- ☐ Media
- ☒ Other

4. Address: 2558 Hamburg Turnpike State: NY Zip Code: 14218

5. Telephone Number: 716-346-2818 Fax Number:

6. E-Mail: cschuster@benchmarkturnkey.com

PART B – INFORMATION REQUESTED

Describe the records that you are requesting in the space provided below. Please include as much detail as possible such as the respective department having possession of the records, dates, titles, or any other information that may assist us in locating the record(s) you are seeking.

We are performing a Phase I Environmental Site Assessment and would like any and all files from the various Departments (specifically Building Permits, Fire Prevention, and Assessor) for the following property: 8 St. Louis Place, Buffalo, NY 14202 (SBL No. 111.22-8-7.1). We would like to set up a date and time to come into City Hall and review the historic Building Department files from the vault.

PART C – METHODS OF REVIEW

- ☐ I would like to schedule a time to review the records that I am requesting. I understand that access to the requested records will be provided in accordance with Section 87 of New York State Public Officers Law. I understand that copies may not be immediately available.
- ☐ I would like the requested documents mailed to me. I understand that access to the requested records will be provided in accordance with Public Officers Law §87. I understand that any fees associated with my obtaining copies of the requested records must be received by the City before the records are disclosed.
- ☐ I would like the requested records sent to the following e-mail address: _____

PART D – FEES

Should you desire copies of records, fees shall apply in accordance with Section 87(1) of the Public Officers Law. Advanced payment is required before records will be released. Please make check or money orders payable to the **City of Buffalo.**

FEES FOR PHOTOCOPIES: *Pages up to 9" x 14" are $.25 ea.* or *the actual cost of reproducing any other record.*

The fee for reproducing a record may include the actual cost of the storage device or media; actual cost for engaging outside professional service to reproduce record; hourly salary for employee time used in reproducing the record.

PART E – SUBMISSION OF REQUEST

After you have reasonably described the records you wish to inspect or obtain, please sign this form and return it to the appropriate City department that maintains the records you seek. Requests may be sent via electronic mail, regular US mail, or hand delivery.

I hereby affirm that the information I have provided on this request form is correct.

Signature: _____ **Print Name:** _____ **Date:** _____

APPENDIX F

SITE RECONNAISSANCE PHOTOS

SITE PHOTOGRAPHS

Photo 1:



Photo 2:



Photo 3:



Photo 4:



Photo 1: View of the general paved parking area - facing east.

Photo 2: View of the overall Site - facing northeast.

Photo 3: View of the utility-owned pole-mounted transformers along the western property boundary - facing west.

Photo 4: View of general refuse and debris pile near the northwest corner of the Site - facing north.

SITE PHOTOGRAPHS

Photo 5:



Photo 6:



Photo 5: View of the former building foundation on the southwestern portion of the Site – facing north.

Photo 6: View of asphalt depressions noted in parking areas – facing east.

APPENDIX G

QUESTIONNAIRES

Phase I Environmental Site Assessment
User Questionnaire

SITE NAME: 8 St. Louis Place Site
ADDRESS: 8 St. Louis Place, Buffalo, NY

1.) Are you aware of any environmental cleanup liens against the Site that have been filed or recorded in a registry under federal, tribal, state or local law?

☑ No ☐ Yes Explain: _____

2.) Are you aware of any engineering controls, land use restrictions or institutional controls that are in place and/or that have been filed or recorded in a registry under federal, tribal, state or local law?

☑ No ☐ Yes Explain: _____

3.) As the User of this ESA do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?

☑ No ☐ Yes Explain: _____

4.) Does the purchase price being paid for this property reasonably reflect fair market value of the property? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property?

☐ No ☑ Yes If No, Explain: _____

5.) Are you aware of commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example, as User,

a. Do you know the past use of the property?
☑ No ☐ Yes Explain: _____
b. Do you know of specific chemicals that are present or once were present at the property?
☑ No ☐ Yes Explain: _____
c. Do you know of spills or other chemical releases that have taken place at the property?
☑ No ☐ Yes Explain: _____
d. Do you know of any environmental cleanup activities that have taken place at the property?
☑ No ☐ Yes Explain: _____

6.) As the User of this ESA, based on your knowledge and experience related to the property are there any obvious indicators that point to the presence or likely presence of contamination at the property?

☑ No ☐ Yes Explain: _____

CERTIFICATION OF RESPONSES

I, Frank Chinnici, the user of the Phase I ESA being completed for this Site, do hereby attest and certify that to the best of my knowledge, the answers and information provided in this questionnaire, are true and accurate. I have not willfully withheld information that may be pertinent to the questions contained herein and have not distorted or misrepresented the facts regarding the content of this questionnaire.

Signature: _____ Date: 4-2-18

Title: Member, FAC Continental, LLC, General Partner

Phase I Environmental Site Assessment
Environmental Questionnaire

1) **Site Information**

Site Name: 8 St. Louis Place Site

Address: 8 Ste. Louis Place, Buffalo, NY

Business Owner/Operator: Main St Louis L.P. Frank Chinnici

Title: Gen. Partner Years in Position: 2

2) **Size & Nature of Operation**

Number of Buildings: None Total Sq. Ft.: Ø Property Size (acres): .25 acres

Description of Operations: None Vacant Land

Current Tenants: None

What is the intended use of the subject property and/or structures located on the subject property?

Residential Development

3) **What are the past uses/occupants of this facility/property & dates of occupancy?**

1) unknown
2)
3)

4) **Utilities**

Floor Drains: N/A Discharge Point:

Sump Pumps: Discharge Point:

Storm Drains: Discharge Point:

Other:

On-site utilities:

When was subject property connected to municipal sewer, if currently connected?

5) **List and describe the stormwater and wastewater discharges from the facility, including the sources, discharge points, and receiving waters or facility.**

None

6) **What is the nature of the wastes generated on-site (including hazardous/ regulated wastes, the disposal methods and waste disposal vendors)?**

NA

How is it stored on-site?

Who collects the waste?

7) **Has the refuse service ever refuse to collect the waste?**

☐ No ☐ Yes Explain: NA

8) **Have there ever been any complaints or notices of violations about your facility?**
☒ No ☐ Yes Nature:

9) **What type of HVAC (Heating, Ventilation & Air Conditioning) system does this facility have (ex; natural gas, electric, heating oil, propane, etc. /forced air, radiant, HVAC, etc.)?**
NA

10) **Was this facility ever heated with oil?**
☐ No ☐ Yes When? NA
Method of Storage:

11) **Was this facility ever a car repair shop, paint shop, or gas station?**
☐ No ☐ Yes When? NA
Owner:

12) **Are there any aboveground or underground storage tanks?**
☒ No ☐ Yes
Tank ID#:
☐ UST ☐ AST Capacity: Product:
Location:
Notable Information:

Tank ID#:
☐ UST ☐ AST Capacity: Product:
Location:
Notable Information:

Tank ID#:
☐ UST ☐ AST Capacity: Product:
Location:
Notable Information:

Do the tanks comply with December 1998 EPA requirements (including overfill protection, monitoring systems, cathodic protection/double walled tank & piping, etc.)?
☐ No ☐ Yes
When were the tanks leak tested?
Are the tanks registered?
Leak detection devices in place? ☐ No ☐ Yes Type of system?

Monitoring reports available? ☐ No ☐ Yes Please supply reports.

13) **Were there ever, to your knowledge, any underground or aboveground tanks located on-site previously?**
☒ No ☐ Yes When?

Are closure reports available? ☐ No ☐ Yes

14) What type of chemicals are used in the operations (attach list)?
List hazardous waste/material storage locations:
NA

15) List the environmental or safety reports to be submitted to regulatory agencies, the frequency of such reports, and the agencies to which they are submitted.
NA

16) Do you have any federal, state, or local permits for the following?

SPDES:	☑ No	☐ Yes	ID #:
RCRA:	☑ No	☐ Yes	ID #:
EPA ID:	☑ No	☐ Yes	ID #:
Title V Air Emissions:	☑ No	☐ Yes	ID #:

17) Have you ever transported Hazardous waste from this site?
☑ No ☐ Yes manifests available? ☐ No ☐ Yes

18) Are PCBs or PCB-containing equipment present on the subject property, including light ballasts or other equipment?
☑ No ☐ Yes

Location:	Type of Equipment:
Location:	Type of Equipment:
Location:	Type of Equipment:

19) Are there any transformers located on-site?
☑ No ☐ Yes Are they utility owned? ☐ No ☐ Yes Utility Company or owner:

20) Do you treat or dispose of any waste materials on-site including incineration, neutralization, or landfilling?
☑ No ☐ Yes Type:

21) Do you store any hazardous/regulated wastes on-site for transfer to a disposal facility?
☑ No ☐ Yes Waste recipient: Permit #:

22) Have you ever been the subject of an enforcement action by any federal, date, or local agency regarding environmental issues?
☑ No ☐ Yes Nature of action:

23) Have there ever been any spills, unpermitted discharges, or releases of hazardous or contaminated materials at or near this facility?
☑ No ☐ Yes Nature of release:

24) Are there any stained, stressed or dead vegetation surfaces on-site?
☑ No ☐ Yes Suspected cause:

25) Are you presently under any federal, state, or local consent orders, decrees or causes of action?
☑ No ☐ Yes Are they pending? ☐ No ☐ Yes

26) Have you ever allowed or permitted any other entity to dump, store, dispose, transport, bury, incinerate, or landfill any materials at the site?

☑ No ☐ Yes Who? When?

27) Does anyone other than your operations utilize this site presently?

☑ No ☐ Yes Who?
Nature of their operations:

28) Have you ever experienced any problems from odors, drainage, storage practices, or operations from your neighbors?

☑ No ☐ Yes Nature of the problem:
Actions taken to correct the problem:

29) Are you aware of any environmental liens on the property?

☑ No ☐ Yes Nature:

30) Was there ever a septic tank, leach field injection well, or dry well located on the property?

☑ No ☐ Yes When?

31) Are there, or were there ever any water wells located on-site?

☑ No ☐ Yes When?

32) Are there any dry cleaning operations conducted on-site?

☑ No ☐ Yes How long has dry cleaning been conducted on-site?
What is the current generation of machine used on-site?
How old is the current machine?
Was there a previous machine used on-site?

33) Is there currently any X-ray developing or film developing conducted on-site?

☑ No ☐ Yes Is there a silver recovery system in use? ☐ No ☐ Yes

34) Do you have any specialized knowledge that would provide information regarding previous ownership or uses of the property that may be material to identifying recognized environmental conditions regarding the site?

☑ No ☐ Yes Nature:

35) What are the past and present uses of the properties adjacent to you (please include dates of occupancy)?

Direction	Current Use/ Occupant	Past Use/Occupants
North	Residential	SAme
South	Residential	Same
East	None	Same
West	Residential	Same

36) Are there any pending, threatened or past litigation relevant to hazardous substances or petroleum products in, on or from the subject property?

☑ No ☐ Yes Nature:

37) **Are there any pending, threatened or past administrative proceedings relevant to hazardous substances or petroleum products in, on or from the subject property?**

☑ No ☐ Yes Nature: _____

38) **Are there any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products related to this site?**

☑ No ☐ Yes Nature: _____

CERTIFICATION OF RESPONSES

I, Frank Chiavici, the owner/operator and/or responsible person for this facility, do hereby attest and certify that to the best of my knowledge, the answers and information provided in this questionnaire, are true and accurate. I have not willfully withheld information that may be pertinent to the questions contained herein and have not distorted or misrepresented the facts regarding the content of this questionnaire.

Signature: _____ Date: 4-2-18

Title: Member, FAC Continental, LLC, General Partner

September 23, 2019

Mr. Frank Chinnici
Legacy Development
250 Ramsdell Avenue
Buffalo, NY 14216

Re: Phase II Environmental Investigation
8 St. Louis Place
Buffalo, New York

Dear Mr. Chinnici:

TurnKey Environmental Restoration, LLC (TurnKey) has prepared this report to present the results of a Phase II Environmental Investigation performed at 8 St. Louis Place in the City of Buffalo, New York (Site). A Site Location and Vicinity Map is provided as Figure 1.

BACKGROUND

TurnKey completed a Phase I Environmental Site Assessment (ESA) at the Site in April 2018. Historically, the Site was developed with multiple residential structures until after 1986, when the buildings were demolished, and the Site was converted into an asphalt parking lot. The Phase I ESA noted that urban fill was likely present at the Site in the area of the former residential structures to fill the former building foundations to grade after demolition. Elevated levels of metals and polycyclic aromatic hydrocarbons (PAHs) are commonly found in urban fill material; therefore, a Phase II Environmental Investigation was completed to confirm the presence of urban fill and any associated contamination on-Site.

INVESTIGATION ACTIVITIES

On September 11, 2019, three (3) shallow test pits identified as TP-1, TP-2, and TP-3, were completed to approximately 2 feet below ground surface (fbgs) using a mini-excavator on the west, middle, and east end of the Site, respectively. Three (3) additional deeper test pits, identified as TP-4, TP-5, and TP-6, were completed using a mini-excavator to approximately 7 fbgs to further characterize the fill material in the on September 17, 2019. Test pit locations are shown on Figure 2. One (1) sample was collected from the fill material within each test pit; samples TP-1 through TP-3 were collected from 0.5 to 2.0 fbgs and samples TP-4 through TP-6 were collected from 0.5 to 6.0 fbgs. The soil/fill samples were screened for volatile organics using a MiniRae 3000 photoionization detector (PID), visual characteristics for each sample were classified using the ASTM D2488 Visual-Manual Procedure Description, and olfactory observations, if any, were noted.

The soil/fill samples were submitted to the laboratory for analysis of Environmental Protection Agency (EPA) Method 8270D PAHs and Resource Conservation and Recovery

Act (RCRA) 8 Metals (EPA Method 6010D and 7471B). All samples were collected in laboratory provided sample bottles and were cooled to 4^0 C prior to transport.

FIELD OBSERVATIONS AND FINDINGS

In general, urban fill consisting of fine brick pieces, asphalt, stone, and metal was observed from the ground surface or below asphalt to approximately 6 fbgs. Native soil, consisting of dry brown medium to coarse sand, was observed underlying the urban fill. At one location (TP-2) a concrete slab was observed overlying the fill material. See the table below for a summary of the investigation locations.

No elevated PID readings or olfactory concerns were noted during the work. Photographs taken during the work are included in Appendix A.

Investigation Location ID	Description	Sample Depth
TP-1	0-2' - Fill Material	0.5-2.0 fbgs
TP-2	0-0.5' - Asphalt 0.5-1'- Concrete slab 1-2'- Fill Material	0.5-2.0 fbgs
TP-3	0-0.5' - Asphalt 0.5-2'- Fill Material	0.5-2.0 fbgs
TP-4	0-0.5' - Asphalt 0.5-6' - Fill Material 6-7' - Native brown, dry, medium to coarse sand	0.5-6.0 fbgs
TP-5	0-0.5' - Asphalt 0.5-6' - Fill Material 6-7' - Native brown, dry, medium to coarse sand	0.5-6.0 fbgs
TP-6	0-0.5' - Asphalt 0.5-6' - Fill Material 6-7' - Native brown, dry, medium to coarse sand	0.5-6.0 fbgs

LABORATORY ANALYTICAL RESULTS

Laboratory analytical results were provided by Alpha Analytical in two reports dated September 13, 2019, and September 20, 2019. Both analytical reports are provided in Appendix B. Analytical results were compared to 6 NYCRR Part 375 Unrestricted use Soil Cleanup Objectives (USCOs) and Restricted-Residential use Soil Cleanup Objectives (RRSCOs).

As summarized on Table 1, PAHs including Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Chrysene, Dibenzo(a,h)anthracene, and Indeno(1,2,3-cd)pyrene were detected above their respective USCOs and/or RRSCOs at five (5) test pit locations (TP-1, TP-2, TP-4, TP-5, and TP-6). Lead was detected above its RRSCO at three (3) test pits (TP-2, TP-4, and TP-6), and above its USCO at two locations (TP-3 and

TP-5). Mercury was detected above its USCO at four test pit locations (TP-2, TP-3, TP-5, and TP-6).

CONCLUSIONS

We understand the subject property is being considered for redevelopment in a residential re-use scenario. The least restrictive applicable SCOs to attain would be RRSCOs, based on the planned use of the Site. Based on the findings detailed above, the Site is a potential candidate for the New York State Brownfield Cleanup Program (BCP). Regardless of whether the BCP is pursued, PAHs- and metals-impacted fill materials present on-Site will require exposure control, remediation, and/or proper soil management either prior to or during the redevelopment project.

DECLARATIONS/LIMITATIONS

This report has been prepared for the exclusive use of Legacy Development. The contents of this report are limited to information available at the time of the subject site investigation. Data provided by others as referenced herein is assumed to be accurate and reliable. The findings herein may be relied upon only at the discretion of Legacy Development and are limited to the terms and conditions identified in the agreement between TurnKey and its client. Use of or reliance upon this report or its findings by any other person or entity is prohibited without written permission of TurnKey Environmental Restoration, LLC.

Please contact us if you have any questions or require additional information.

Sincerely,
TurnKey Environmental Restoration, LLC

Michael A. Lesakowski
Principal

Bryan W. Mayback
Sr. Project Scientist

TABLE

TABLE 1

SUMMARY OF SOIL/FILL ANALYTICAL DATA

8 SAINT LOUIS PLACE
BUFFALO, NEW YORK

PARAMETER [1]	Unrestricted Use SCOs [2]	Restricted Residential Use SCOs [2]	Sample Location					
			TP-1 (0.5-2.0 fbgs)	TP-2 (0.5-2.0 fbgs)	TP-3 (0.5-2.0 fbgs)	TP-4 (0.5-6.0 fbgs)	TP-5 (0.5-6.0 fbgs)	TP-6 (0.5-6.0 fbgs)
			9/11/2019	9/11/2019	9/11/2019	9/17/2019	9/17/2019	9/17/2019
Polycyclic Aromatic Hydrocarbons (PAHs) - mg/Kg [3]								
Acenaphthene	**20**	**100**	1.1	0.23	0.023 J	0.28 J	0.34 J	0.1 J
Acenaphthylene	**100**	**100**	ND	0.14	0.037 J	0.28 J	ND	0.21 J
Anthracene	**100**	**100**	2.8	0.42	0.063 J	0.68	0.5	0.35
Benzo(a)anthracene	**1**	**1**	**6.7**	**2.4**	0.32	**3.1**	**2.5**	0.98
Benzo(a)pyrene	**1**	**1**	**7.3**	**2.7**	0.35	**3.5**	**2.4**	0.91
Benzo(b)fluoranthene	**1**	**1**	**9.4**	**3.7**	0.5	**4.8**	**3.7**	**1.3**
Benzo(ghi)perylene	**100**	**100**	5.4	2.1	0.28	2.8	1.6	0.64
Benzo(k)fluoranthene	**0.8**	**3.9**	**3.2**	**1.3**	0.17	**1.6**	**1**	0.34
Chrysene	**1**	**3.9**	**6.7**	**2.5**	0.35	**3.1**	**2.6**	0.92
Dibenzo(a,h)anthracene	**0.33**	**0.33**	**1.1**	**0.48**	0.074 J	**0.61**	**0.44**	0.14 J
Fluoranthene	**100**	**100**	17	4.6	0.67	6.4	5.5	2.1
Fluorene	**30**	**100**	1.2	0.14 J	0.023 J	0.22 J	0.22 J	0.11 J
Indeno(1,2,3-cd)pyrene	**0.5**	**0.5**	**5.7**	**2.2**	0.28	**2.7**	**1.6**	**0.64**
Naphthalene	**12**	**100**	0.5 J	0.059 J	0.022 J	0.11 J	0.066 J	0.081 J
Phenanthrene	**100**	**100**	12	2.1	0.38	3	2.8	1.2
Pyrene	**100**	**100**	14	3.9	0.55	5.2	4.3	1.8
Metals - mg/Kg								
Arsenic	**13**	**16**	6.22	7.62	4.95	5.88	3.34	10.7
Barium	**350**	**400**	165	155	57.3	142	36.3	139
Cadmium	**2.5**	**4.3**	0.29 J	0.66 J	0.638	0.654 J	0.165 J	0.099 J
Chromium	**30**	**180**	6.35	7.56	7.31	5.87	4.33	5.79
Lead	**63**	**400**	29.2	**459**	**186**	**680**	**105**	**528**
Mercury	**0.18**	**0.81**	0.097	**0.307**	**0.318**	0.17	**0.278**	**0.483**
Selenium	**3.9**	**180**	2.82 J	1.51 J	0.186 J	0.23 J	ND	0.513 J
Silver	**2**	**180**	ND	ND	ND	ND	ND	0.125 J

Notes:

1. Only those parameters detected at a minimum of one sample location are presented in this table; all other compounds were reported as non-detect.
2. Values per 6NYCRR Part 375 Soil Cleanup Objectives (SCOs).
3. Sample results were reported by the laboratory in ug/kg and converted to mg/kg for comparisons to SCOs

Definitions:

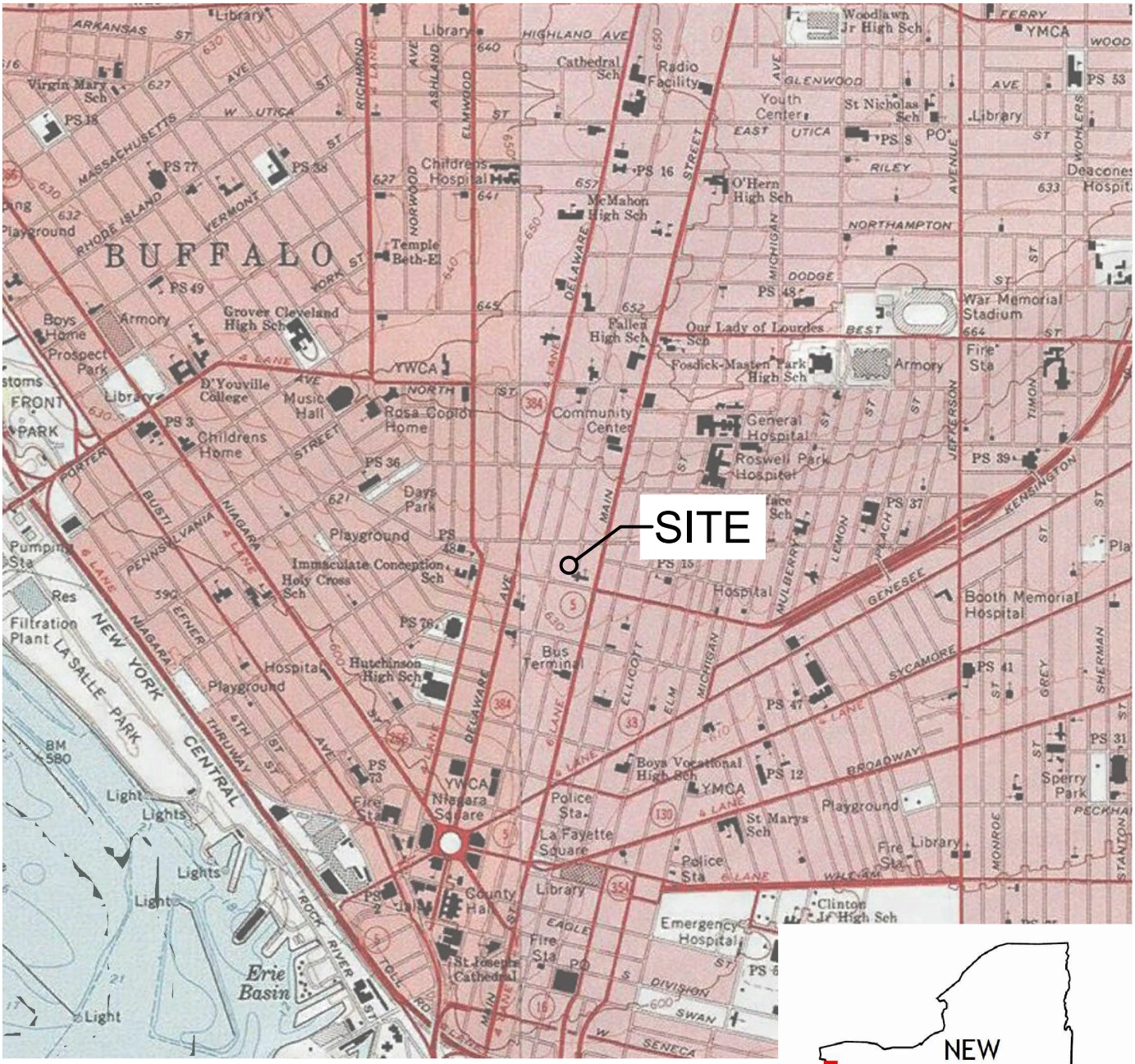
ND = Parameter not detected above laboratory detection limit.
J = Estimated value; result is less than the sample quantitation limit but greater than zero.

Bold	= Result exceeds Unrestricted Use SCOs.
Bold	= Result exceeds Restricted Residential Use SCOs.

FIGURES

F:\CAD\TurnKey\Legacy Development\8 St Louis Pl\Figure 1 - Site Location and Vicinity Map.dwg

FIGURE 1



TurnKey Environmental Restoration, LLC
2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0635

PROJECT NO.: T0395-018-001

DATE: SEPTEMBER 2019

DRAFTED BY: CEH

SITE LOCATION AND VICINITY MAP

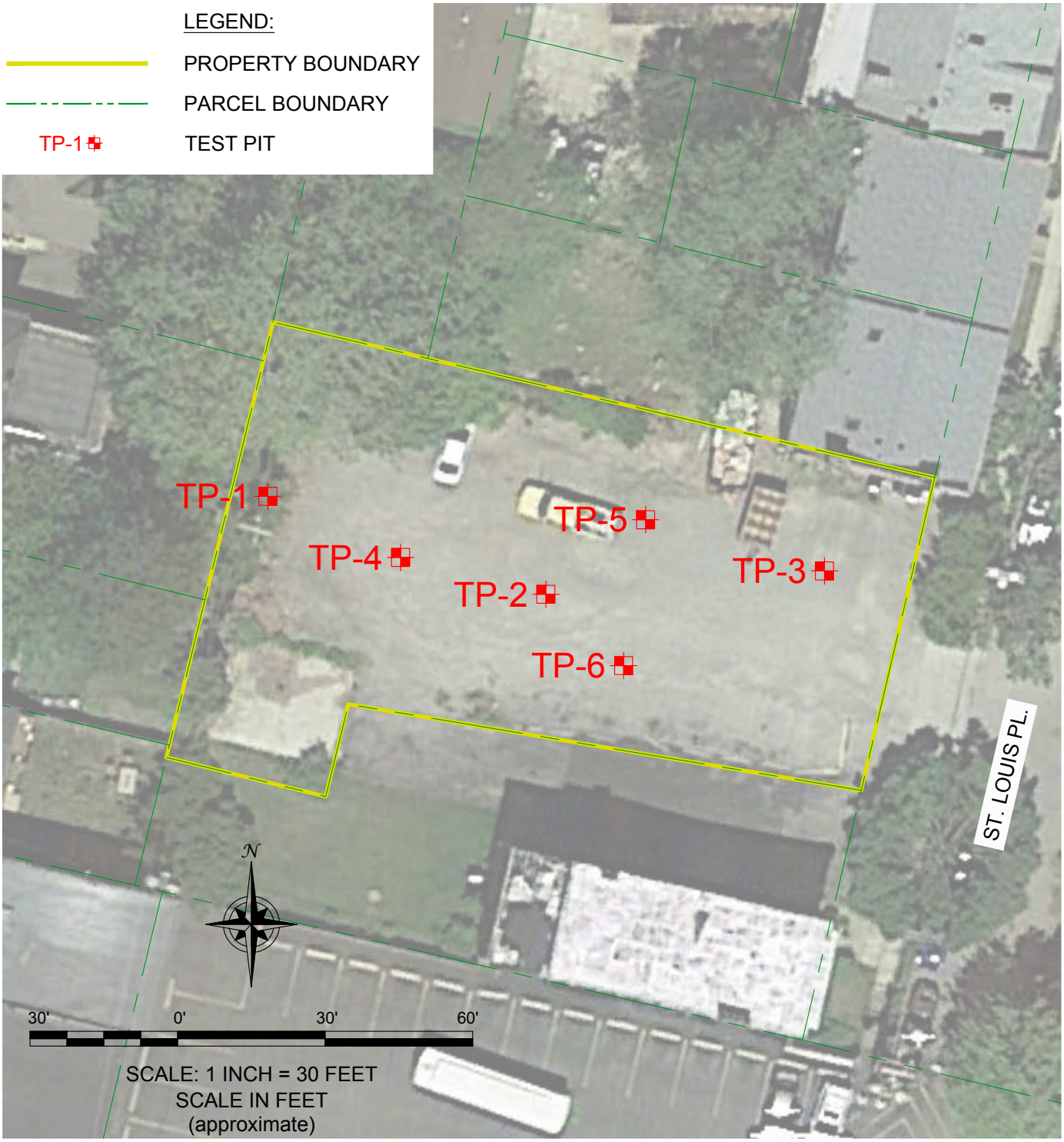
PHASE II ENVIRONMENTAL INVESTIGATION

8 SAINT LOUIS PLACE
BUFFALO, NEW YORK

PREPARED FOR
LEGACY DEVELOPMENT

DISCLAIMER:
PROPERTY OF TURNKEY ENVIRONMENTAL RESTORATION, LLC. IMPORTANT: THIS DRAWING PRINT IS LOANED FOR MUTUAL ASSISTANCE AND AS SUCH IS SUBJECT TO RECALL AT ANY TIME. INFORMATION CONTAINED HEREON IS NOT TO BE DISCLOSED OR REPRODUCED IN ANY FORM FOR THE BENEFIT OF PARTIES OTHER THAN NECESSARY SUBCONTRACTORS & SUPPLIERS WITHOUT THE WRITTEN CONSENT OF TURNKEY ENVIRONMENTAL RESTORATION, LLC.

FIGURE 2



TURNKEY ENVIRONMENTAL RESTORATION, LLC
2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0635

SITE PLAN WITH TEST PIT LOCATIONS

PHASE II ENVIRONMENTAL INVESTIGATION

8 SAINT LOUIS PLACE
BUFFALO, NEW YORK

PREPARED FOR
LEGACY DEVELOPMENT

PROJECT NO.: T0395-018-001
DATE: SEPTEMBER 2019
DRAFTED BY: CEH

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APPENDIX A

PHOTO LOG

SITE PHOTOGRAPHS

Photo 1:



Photo 2:



Photo 3:



Photo 4:



Photo 1: View of test pit excavation facing north.

Photo 2: View of the excavated fill.

Photo 3: View of TP-4 facing west.

Photo 4: View of the urban fill in sample TP-4

APPENDIX B

LABORATORY ANALYTICAL REPORTS

ANALYTICAL REPORT

Lab Number:	L1941419
Client:	Benchmark & Turnkey Companies 2558 Hamburg Turnpike Suite 300 Buffalo, NY 14218
ATTN:	Mike Lesakowski
Phone:	(716) 856-0599
Project Name:	LEGACY DEVELOPMENT
Project Number:	T0105-019-014
Report Date:	09/13/19

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: LEGACY DEVELOPMENT
Project Number: T0105-019-014

Lab Number: L1941419
Report Date: 09/13/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1941419-01	TP-1	SOIL	8 ST. LOUIS PLACE	09/11/19 10:00	09/11/19
L1941419-02	TP-2	SOIL	8 ST. LOUIS PLACE	09/11/19 10:05	09/11/19
L1941419-03	TP-3	SOIL	8 ST. LOUIS PLACE	09/11/19 10:10	09/11/19

Project Name:	LEGACY DEVELOPMENT	**Lab Number:**	L1941419
Project Number:	T0105-019-014	**Report Date:**	09/13/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	LEGACY DEVELOPMENT	**Lab Number:**	L1941419
Project Number:	T0105-019-014	**Report Date:**	09/13/19

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Total Metals

L1941419-01 and -02: The sample has elevated detection limits for all elements, with the exception of mercury, due to the dilution required by matrix interferences encountered during analysis.

The WG1283663-3 MS recovery, performed on L1941419-01, is outside the acceptance criteria for chromium (74%). A post digestion spike was performed and was within acceptance criteria.

The WG1283663-3 MS recovery, performed on L1941419-01, is outside the acceptance criteria for arsenic (65%). A post digestion spike was performed and yielded an unacceptable recovery for arsenic (124%). The serial dilution recovery was not applicable; therefore, this element fails the matrix test and the result reported in the native sample should be considered estimated.

The WG1283654-3 MS recovery, performed on L1941419-01, is outside the acceptance criteria for mercury (62%). A post digestion spike was performed and was within acceptance criteria.

The WG1283663-4 Laboratory Duplicate RPD for arsenic (52%), performed on L1941419-01, is outside the acceptance criteria. The elevated RPD has been attributed to the non-homogeneous nature of the native sample.

The WG1283654-4 Laboratory Duplicate RPD for mercury (35%), performed on L1941419-01, is outside the acceptance criteria. The elevated RPD has been attributed to the non-homogeneous nature of the native sample.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Melissa Sturgis Melissa Sturgis

Title: Technical Director/Representative Date: 09/13/19

ORGANICS

SEMIVOLATILES

Project Name: LEGACY DEVELOPMENT
Project Number: T0105-019-014
Lab Number: L1941419
Report Date: 09/13/19

SAMPLE RESULTS

Lab ID: L1941419-01 D
Client ID: TP-1
Sample Location: 8 ST. LOUIS PLACE

Date Collected: 09/11/19 10:00
Date Received: 09/11/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 09/13/19 16:20
Analyst: JG
Percent Solids: 94%

Extraction Method: EPA 3546
Extraction Date: 09/12/19 17:09

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	1100		ug/kg	710	92.	5
Fluoranthene	17000		ug/kg	530	100	5
Naphthalene	500	J	ug/kg	890	110	5
Benzo(a)anthracene	6700		ug/kg	530	100	5
Benzo(a)pyrene	7300		ug/kg	710	220	5
Benzo(b)fluoranthene	9400		ug/kg	530	150	5
Benzo(k)fluoranthene	3200		ug/kg	530	140	5
Chrysene	6700		ug/kg	530	92.	5
Acenaphthylene	ND		ug/kg	710	140	5
Anthracene	2800		ug/kg	530	170	5
Benzo(ghi)perylene	5400		ug/kg	710	100	5
Fluorene	1200		ug/kg	890	86.	5
Phenanthrene	12000		ug/kg	530	110	5
Dibenzo(a,h)anthracene	1100		ug/kg	530	100	5
Indeno(1,2,3-cd)pyrene	5700		ug/kg	710	120	5
Pyrene	14000		ug/kg	530	88.	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	28		23-120
2-Fluorobiphenyl	**25**	Q	30-120
4-Terphenyl-d14	23		18-120

Project Name: LEGACY DEVELOPMENT
Project Number: T0105-019-014
Lab Number: L1941419
Report Date: 09/13/19

SAMPLE RESULTS

Lab ID: L1941419-02
Client ID: TP-2
Sample Location: 8 ST. LOUIS PLACE

Date Collected: 09/11/19 10:05
Date Received: 09/11/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 09/13/19 11:55
Analyst: IM
Percent Solids: 90%

Extraction Method: EPA 3546
Extraction Date: 09/12/19 17:09

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	230		ug/kg	140	19.	1
Fluoranthene	4600		ug/kg	110	21.	1
Naphthalene	59	J	ug/kg	180	22.	1
Benzo(a)anthracene	2400		ug/kg	110	20.	1
Benzo(a)pyrene	2700		ug/kg	140	44.	1
Benzo(b)fluoranthene	3700		ug/kg	110	30.	1
Benzo(k)fluoranthene	1300		ug/kg	110	29.	1
Chrysene	2500		ug/kg	110	19.	1
Acenaphthylene	140		ug/kg	140	28.	1
Anthracene	420		ug/kg	110	35.	1
Benzo(ghi)perylene	2100		ug/kg	140	21.	1
Fluorene	140	J	ug/kg	180	18.	1
Phenanthrene	2100		ug/kg	110	22.	1
Dibenzo(a,h)anthracene	480		ug/kg	110	21.	1
Indeno(1,2,3-cd)pyrene	2200		ug/kg	140	25.	1
Pyrene	3900		ug/kg	110	18.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	67		23-120
2-Fluorobiphenyl	58		30-120
4-Terphenyl-d14	52		18-120

Project Name: LEGACY DEVELOPMENT
Project Number: T0105-019-014
Lab Number: L1941419
Report Date: 09/13/19

SAMPLE RESULTS

Lab ID: L1941419-03
Client ID: TP-3
Sample Location: 8 ST. LOUIS PLACE

Date Collected: 09/11/19 10:10
Date Received: 09/11/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 09/13/19 12:19
Analyst: IM
Percent Solids: 91%

Extraction Method: EPA 3546
Extraction Date: 09/12/19 17:09

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	23	J	ug/kg	140	19.	1
Fluoranthene	670		ug/kg	110	21.	1
Naphthalene	22	J	ug/kg	180	22.	1
Benzo(a)anthracene	320		ug/kg	110	20.	1
Benzo(a)pyrene	350		ug/kg	140	44.	1
Benzo(b)fluoranthene	500		ug/kg	110	30.	1
Benzo(k)fluoranthene	170		ug/kg	110	29.	1
Chrysene	350		ug/kg	110	19.	1
Acenaphthylene	37	J	ug/kg	140	28.	1
Anthracene	63	J	ug/kg	110	35.	1
Benzo(ghi)perylene	280		ug/kg	140	21.	1
Fluorene	23	J	ug/kg	180	18.	1
Phenanthrene	380		ug/kg	110	22.	1
Dibenzo(a,h)anthracene	74	J	ug/kg	110	21.	1
Indeno(1,2,3-cd)pyrene	280		ug/kg	140	25.	1
Pyrene	550		ug/kg	110	18.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	37		23-120
2-Fluorobiphenyl	35		30-120
4-Terphenyl-d14	30		18-120

Project Name: LEGACY DEVELOPMENT
Project Number: T0105-019-014
Lab Number: L1941419
Report Date: 09/13/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 09/13/19 11:05
Analyst: JG

Extraction Method: EPA 3546
Extraction Date: 09/12/19 11:18

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1283334-1					
Acenaphthene	ND		ug/kg	130	17.
Fluoranthene	ND		ug/kg	97	18.
Naphthalene	ND		ug/kg	160	20.
Benzo(a)anthracene	ND		ug/kg	97	18.
Benzo(a)pyrene	ND		ug/kg	130	39.
Benzo(b)fluoranthene	ND		ug/kg	97	27.
Benzo(k)fluoranthene	ND		ug/kg	97	26.
Chrysene	ND		ug/kg	97	17.
Acenaphthylene	ND		ug/kg	130	25.
Anthracene	ND		ug/kg	97	31.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	97	20.
Dibenzo(a,h)anthracene	ND		ug/kg	97	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	22.
Pyrene	ND		ug/kg	97	16.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	71		25-120
Phenol-d6	77		10-120
Nitrobenzene-d5	68		23-120
2-Fluorobiphenyl	60		30-120
2,4,6-Tribromophenol	62		10-136
4-Terphenyl-d14	63		18-120

Lab Control Sample Analysis

Batch Quality Control

Project Name: LEGACY DEVELOPMENT

Project Number: T0105-019-014

Lab Number: L1941419

Report Date: 09/13/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1283334-2 WG1283334-3								
Acenaphthene	66		56		31-137	16		50
Fluoranthene	70		60		40-140	15		50
Naphthalene	66		57		40-140	15		50
Benzo(a)anthracene	69		60		40-140	14		50
Benzo(a)pyrene	64		53		40-140	19		50
Benzo(b)fluoranthene	71		58		40-140	20		50
Benzo(k)fluoranthene	64		56		40-140	13		50
Chrysene	68		55		40-140	21		50
Acenaphthylene	67		56		40-140	18		50
Anthracene	73		61		40-140	18		50
Benzo(ghi)perylene	71		59		40-140	18		50
Fluorene	69		57		40-140	19		50
Phenanthrene	68		57		40-140	18		50
Dibenzo(a,h)anthracene	74		62		40-140	18		50
Indeno(1,2,3-cd)pyrene	73		61		40-140	18		50
Pyrene	67		58		35-142	14		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: LEGACY DEVELOPMENT

Project Number: T0105-019-014

Lab Number: L1941419

Report Date: 09/13/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1283334-2 WG1283334-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	75		61		25-120
Phenol-d6	78		64		10-120
Nitrobenzene-d5	71		61		23-120
2-Fluorobiphenyl	59		51		30-120
2,4,6-Tribromophenol	69		57		10-136
4-Terphenyl-d14	62		51		18-120

METALS

Project Name: LEGACY DEVELOPMENT
Lab Number: L1941419
Project Number: T0105-019-014
Report Date: 09/13/19

SAMPLE RESULTS

Lab ID: L1941419-01
Client ID: TP-1
Sample Location: 8 ST. LOUIS PLACE
Date Collected: 09/11/19 10:00
Date Received: 09/11/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 94%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	6.22		mg/kg	2.07	0.431	5	09/13/19 08:30	09/13/19 12:07	EPA 3050B	1,6010D	LC
Barium, Total	165		mg/kg	2.07	0.361	5	09/13/19 08:30	09/13/19 12:07	EPA 3050B	1,6010D	LC
Cadmium, Total	0.290	J	mg/kg	2.07	0.203	5	09/13/19 08:30	09/13/19 12:07	EPA 3050B	1,6010D	LC
Chromium, Total	6.35		mg/kg	2.07	0.199	5	09/13/19 08:30	09/13/19 12:07	EPA 3050B	1,6010D	LC
Lead, Total	29.2		mg/kg	10.4	0.556	5	09/13/19 08:30	09/13/19 12:07	EPA 3050B	1,6010D	LC
Mercury, Total	0.097		mg/kg	0.067	0.044	1	09/13/19 07:30	09/13/19 10:27	EPA 7471B	1,7471B	GD
Selenium, Total	2.82	J	mg/kg	4.15	0.535	5	09/13/19 08:30	09/13/19 12:07	EPA 3050B	1,6010D	LC
Silver, Total	ND		mg/kg	2.07	0.587	5	09/13/19 08:30	09/13/19 12:07	EPA 3050B	1,6010D	LC

Project Name: LEGACY DEVELOPMENT **Lab Number:** L1941419

Project Number: T0105-019-014 **Report Date:** 09/13/19

SAMPLE RESULTS

Lab ID: L1941419-02 Date Collected: 09/11/19 10:05

Client ID: TP-2 Date Received: 09/11/19

Sample Location: 8 ST. LOUIS PLACE Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 90%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	7.62		mg/kg	2.13	0.443	5	09/13/19 08:30	09/13/19 12:25	EPA 3050B	1,6010D	LC
Barium, Total	155		mg/kg	2.13	0.370	5	09/13/19 08:30	09/13/19 12:25	EPA 3050B	1,6010D	LC
Cadmium, Total	0.660	J	mg/kg	2.13	0.209	5	09/13/19 08:30	09/13/19 12:25	EPA 3050B	1,6010D	LC
Chromium, Total	7.56		mg/kg	2.13	0.204	5	09/13/19 08:30	09/13/19 12:25	EPA 3050B	1,6010D	LC
Lead, Total	459		mg/kg	10.6	0.571	5	09/13/19 08:30	09/13/19 12:25	EPA 3050B	1,6010D	LC
Mercury, Total	0.307		mg/kg	0.070	0.045	1	09/13/19 07:30	09/13/19 10:40	EPA 7471B	1,7471B	GD
Selenium, Total	1.51	J	mg/kg	4.26	0.549	5	09/13/19 08:30	09/13/19 12:25	EPA 3050B	1,6010D	LC
Silver, Total	ND		mg/kg	2.13	0.603	5	09/13/19 08:30	09/13/19 12:25	EPA 3050B	1,6010D	LC

Project Name: LEGACY DEVELOPMENT
Lab Number: L1941419
Project Number: T0105-019-014
Report Date: 09/13/19

SAMPLE RESULTS

Lab ID: L1941419-03
Client ID: TP-3
Sample Location: 8 ST. LOUIS PLACE
Date Collected: 09/11/19 10:10
Date Received: 09/11/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 91%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	4.95		mg/kg	0.423	0.088	1	09/13/19 08:30	09/13/19 11:33	EPA 3050B	1,6010D	LC
Barium, Total	57.3		mg/kg	0.423	0.074	1	09/13/19 08:30	09/13/19 11:33	EPA 3050B	1,6010D	LC
Cadmium, Total	0.638		mg/kg	0.423	0.041	1	09/13/19 08:30	09/13/19 11:33	EPA 3050B	1,6010D	LC
Chromium, Total	7.31		mg/kg	0.423	0.041	1	09/13/19 08:30	09/13/19 11:33	EPA 3050B	1,6010D	LC
Lead, Total	186		mg/kg	2.11	0.113	1	09/13/19 08:30	09/13/19 11:33	EPA 3050B	1,6010D	LC
Mercury, Total	0.318		mg/kg	0.069	0.045	1	09/13/19 07:30	09/13/19 10:44	EPA 7471B	1,7471B	GD
Selenium, Total	0.186	J	mg/kg	0.846	0.109	1	09/13/19 08:30	09/13/19 11:33	EPA 3050B	1,6010D	LC
Silver, Total	ND		mg/kg	0.423	0.120	1	09/13/19 08:30	09/13/19 11:33	EPA 3050B	1,6010D	LC

Project Name: LEGACY DEVELOPMENT **Lab Number:** L1941419

Project Number: T0105-019-014 **Report Date:** 09/13/19

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-03 Batch: WG1283654-1										
Mercury, Total	ND		mg/kg	0.083	0.054	1	09/13/19 07:30	09/13/19 10:20	1,7471B	GD

Prep Information

Digestion Method: EPA 7471B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-03 Batch: WG1283663-1										
Arsenic, Total	ND		mg/kg	0.400	0.083	1	09/13/19 08:30	09/13/19 10:51	1,6010D	LC
Barium, Total	ND		mg/kg	0.400	0.070	1	09/13/19 08:30	09/13/19 10:51	1,6010D	LC
Cadmium, Total	ND		mg/kg	0.400	0.039	1	09/13/19 08:30	09/13/19 10:51	1,6010D	LC
Chromium, Total	ND		mg/kg	0.400	0.038	1	09/13/19 08:30	09/13/19 10:51	1,6010D	LC
Lead, Total	ND		mg/kg	2.00	0.107	1	09/13/19 08:30	09/13/19 10:51	1,6010D	LC
Selenium, Total	ND		mg/kg	0.800	0.103	1	09/13/19 08:30	09/13/19 10:51	1,6010D	LC
Silver, Total	ND		mg/kg	0.400	0.113	1	09/13/19 08:30	09/13/19 10:51	1,6010D	LC

Prep Information

Digestion Method: EPA 3050B

Lab Control Sample Analysis

Batch Quality Control

Project Name: LEGACY DEVELOPMENT

Project Number: T0105-019-014

Lab Number: L1941419

Report Date: 09/13/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-03 Batch: WG1283654-2 SRM Lot Number: D105-540								
Mercury, Total	84		-		60-141	-		
Total Metals - Mansfield Lab Associated sample(s): 01-03 Batch: WG1283663-2 SRM Lot Number: D105-540								
Arsenic, Total	90		-		70-130	-		
Barium, Total	84		-		75-125	-		
Cadmium, Total	90		-		75-125	-		
Chromium, Total	82		-		70-130	-		
Lead, Total	82		-		71-128	-		
Selenium, Total	87		-		63-137	-		
Silver, Total	82		-		69-131	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: LEGACY DEVELOPMENT
Project Number: T0105-019-014

Lab Number: L1941419
Report Date: 09/13/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1283654-3 QC Sample: L1941419-01 Client ID: TP-1												
Mercury, Total	0.097	0.136	0.181	**62**	Q	-	-		80-120	-		20
Total Metals - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1283663-3 QC Sample: L1941419-01 Client ID: TP-1												
Arsenic, Total	6.22	10	12.7	**65**	Q	-	-		75-125	-		20
Barium, Total	165	167	316	90		-	-		75-125	-		20
Cadmium, Total	0.290J	4.25	3.54	83		-	-		75-125	-		20
Chromium, Total	6.35	16.7	18.7	**74**	Q	-	-		75-125	-		20
Lead, Total	29.2	42.5	67.5	90		-	-		75-125	-		20
Selenium, Total	2.82J	10	11.0	110		-	-		75-125	-		20
Silver, Total	ND	25	22.1	88		-	-		75-125	-		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: LEGACY DEVELOPMENT

Project Number: T0105-019-014

Lab Number: L1941419

Report Date: 09/13/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1283654-4 QC Sample: L1941419-01 Client ID: TP-1						
Mercury, Total	0.097	0.068	mg/kg	**35**	Q	20
Total Metals - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1283663-4 QC Sample: L1941419-01 Client ID: TP-1						
Arsenic, Total	6.22	3.65	mg/kg	**52**	Q	20
Barium, Total	165	171	mg/kg	4		20
Cadmium, Total	0.290J	0.284J	mg/kg	NC		20
Chromium, Total	6.35	6.50	mg/kg	2		20
Lead, Total	29.2	34.9	mg/kg	18		20
Selenium, Total	2.82J	2.61J	mg/kg	NC		20
Silver, Total	ND	ND	mg/kg	NC		20

INORGANICS
&
MISCELLANEOUS

Project Name: LEGACY DEVELOPMENT
Project Number: T0105-019-014
Lab Number: L1941419
Report Date: 09/13/19

SAMPLE RESULTS

Lab ID: L1941419-01
Client ID: TP-1
Sample Location: 8 ST. LOUIS PLACE
Sample Depth:
Matrix: Soil

Date Collected: 09/11/19 10:00
Date Received: 09/11/19
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	93.5		%	0.100	NA	1	-	09/12/19 13:31	121,2540G	RI

Project Name: LEGACY DEVELOPMENT
Project Number: T0105-019-014

Lab Number: L1941419
Report Date: 09/13/19

SAMPLE RESULTS

Lab ID: L1941419-02
Client ID: TP-2
Sample Location: 8 ST. LOUIS PLACE

Date Collected: 09/11/19 10:05
Date Received: 09/11/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	90.3		%	0.100	NA	1	-	09/12/19 13:31	121,2540G	RI

Project Name: LEGACY DEVELOPMENT
Project Number: T0105-019-014
Lab Number: L1941419
Report Date: 09/13/19

SAMPLE RESULTS

Lab ID: L1941419-03
Client ID: TP-3
Sample Location: 8 ST. LOUIS PLACE
Sample Depth:
Matrix: Soil

Date Collected: 09/11/19 10:10
Date Received: 09/11/19
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	90.6		%	0.100	NA	1	-	09/12/19 13:31	121,2540G	RI

Lab Duplicate Analysis

Batch Quality Control

Project Name: LEGACY DEVELOPMENT

Project Number: T0105-019-014

Lab Number: L1941419

Report Date: 09/13/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG1283342-1 QC Sample: L1941473-01 Client ID: DUP Sample						
Solids, Total	96.4	95.6	%	1		20

Project Name: LEGACY DEVELOPMENT
Project Number: T0105-019-014

Lab Number: L1941419
Report Date: 09/13/19

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1941419-01A	Vial Large Septa unpreserved (4oz)	A	NA		5.3	Y	Absent		AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PB-TI(180),SE-TI(180),HG-T(28),CD-TI(180)
L1941419-01B	Vial Large Septa unpreserved (4oz)	A	NA		5.3	Y	Absent		NYCP51-PAH(14),TS(7)
L1941419-02A	Vial Large Septa unpreserved (4oz)	A	NA		5.3	Y	Absent		AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PB-TI(180),SE-TI(180),HG-T(28),CD-TI(180)
L1941419-02B	Vial Large Septa unpreserved (4oz)	A	NA		5.3	Y	Absent		NYCP51-PAH(14),TS(7)
L1941419-03A	Vial Large Septa unpreserved (4oz)	A	NA		5.3	Y	Absent		AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PB-TI(180),SE-TI(180),HG-T(28),CD-TI(180)
L1941419-03B	Vial Large Septa unpreserved (4oz)	A	NA		5.3	Y	Absent		NYCP51-PAH(14),TS(7)

*Values in parentheses indicate holding time in days

Project Name:	LEGACY DEVELOPMENT	**Lab Number:**	L1941419
Project Number:	T0105-019-014	**Report Date:**	09/13/19

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: DU Report with 'J' Qualifiers

Project Name: LEGACY DEVELOPMENT **Lab Number:** L1941419

Project Number: T0105-019-014 **Report Date:** 09/13/19

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

Report Format: DU Report with 'J' Qualifiers

Project Name:	LEGACY DEVELOPMENT	**Lab Number:**	L1941419
Project Number:	T0105-019-014	**Report Date:**	09/13/19

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

(1)

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

NEW YORK CHAIN OF CUSTODY

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page of

Date Rec'd in Lab: 9/12/19

ALPHA Job #: L1941419

Client Information
Client: Turnkey Environmental
Address: 2558 Hamburg Turnpike
Buffalo N.Y. 14218
Phone: 716-856-0599
Fax:
Email: mlesakowski@turnkeyllc.com

Project Information
Project Name: Legacy Development
Project Location: 8 St. Louis Place
Project #
(Use Project name as Project #) ☐
Project Manager:
ALPHAQuote #:

Turn-Around Time
Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables
☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information
☐ Same as Client Info
PO #

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PAHs	RCRA Metals	Sample Specific Comments	Total Bottle
41419-01	TP-1	9/11/19	1000	Soil	MAL	X	X		2
-02	TP-2	9/11/19	1005	Soil	MAL	X	X		2
-03	TP-3	9/11/19	1010	Soil	MAL	X	X		

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type	A	A								
Preservative	A	A								

Relinquished By:	Date/Time	Received By:	Date/Time
	9/11/19 1020		
	9/11/19 1115		9/12/19 0035

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

ANALYTICAL REPORT

Lab Number:	L1942912
Client:	Turnkey Environmental Restoration, LLC 2558 Hamburg Turnpike Suite 300 Buffalo, NY 14218
ATTN:	Mike Lesakowski
Phone:	(716) 856-0599
Project Name:	LEGACY DEVELOPMENT
Project Number:	T0395-018-001
Report Date:	09/20/19

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: LEGACY DEVELOPMENT
Project Number: T0395-018-001

Lab Number: L1942912
Report Date: 09/20/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1942912-01	TP-4	SOIL	8 ST., LOUIS PLACE	09/17/19 11:10	09/18/19
L1942912-02	TP-5	SOIL	8 ST., LOUIS PLACE	09/17/19 11:20	09/18/19
L1942912-03	TP-6	SOIL	8 ST., LOUIS PLACE	09/17/19 11:00	09/18/19

Project Name:	LEGACY DEVELOPMENT	**Lab Number:**	L1942912
Project Number:	T0395-018-001	**Report Date:**	09/20/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	LEGACY DEVELOPMENT	**Lab Number:**	L1942912
Project Number:	T0395-018-001	**Report Date:**	09/20/19

Case Narrative (continued)

Report Submission

The project number was provided by the client.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Semivolatile Organics

L1942912-01, -02, and -03: The sample has elevated detection limits due to the limited sample volume utilized during extraction, as required by the sample matrix.

Total Metals

L1942912-01: The sample has elevated detection limits for all elements, with the exception of mercury, due to the dilution required by matrix interferences encountered during analysis.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Cristin Walker

Title: Technical Director/Representative Date: 09/20/19

ORGANICS

SEMIVOLATILES

Project Name: LEGACY DEVELOPMENT
Lab Number: L1942912
Project Number: T0395-018-001
Report Date: 09/20/19

SAMPLE RESULTS

Lab ID: L1942912-01
Client ID: TP-4
Sample Location: 8 ST., LOUIS PLACE

Date Collected: 09/17/19 11:10
Date Received: 09/18/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 09/20/19 08:26
Analyst: IM
Percent Solids: 88%

Extraction Method: EPA 3546
Extraction Date: 09/19/19 09:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	280	J	ug/kg	450	58.	1
Fluoranthene	6400		ug/kg	340	64.	1
Naphthalene	110	J	ug/kg	560	68.	1
Benzo(a)anthracene	3100		ug/kg	340	63.	1
Benzo(a)pyrene	3500		ug/kg	450	140	1
Benzo(b)fluoranthene	4800		ug/kg	340	94.	1
Benzo(k)fluoranthene	1600		ug/kg	340	90.	1
Chrysene	3100		ug/kg	340	58.	1
Acenaphthylene	280	J	ug/kg	450	87.	1
Anthracene	680		ug/kg	340	110	1
Benzo(ghi)perylene	2800		ug/kg	450	66.	1
Fluorene	220	J	ug/kg	560	54.	1
Phenanthrene	3000		ug/kg	340	68.	1
Dibenzo(a,h)anthracene	610		ug/kg	340	65.	1
Indeno(1,2,3-cd)pyrene	2700		ug/kg	450	78.	1
Pyrene	5200		ug/kg	340	56.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	76		23-120
2-Fluorobiphenyl	78		30-120
4-Terphenyl-d14	74		18-120

Project Name: LEGACY DEVELOPMENT
Lab Number: L1942912
Project Number: T0395-018-001
Report Date: 09/20/19

SAMPLE RESULTS

Lab ID: L1942912-02
Client ID: TP-5
Sample Location: 8 ST., LOUIS PLACE

Date Collected: 09/17/19 11:20
Date Received: 09/18/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 09/20/19 08:49
Analyst: IM
Percent Solids: 92%

Extraction Method: EPA 3546
Extraction Date: 09/19/19 06:18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	340	J	ug/kg	430	55.	1
Fluoranthene	5500		ug/kg	320	61.	1
Naphthalene	66	J	ug/kg	530	65.	1
Benzo(a)anthracene	2500		ug/kg	320	60.	1
Benzo(a)pyrene	2400		ug/kg	430	130	1
Benzo(b)fluoranthene	3700		ug/kg	320	90.	1
Benzo(k)fluoranthene	1000		ug/kg	320	85.	1
Chrysene	2600		ug/kg	320	55.	1
Acenaphthylene	ND		ug/kg	430	82.	1
Anthracene	500		ug/kg	320	100	1
Benzo(ghi)perylene	1600		ug/kg	430	63.	1
Fluorene	220	J	ug/kg	530	52.	1
Phenanthrene	2800		ug/kg	320	65.	1
Dibenzo(a,h)anthracene	440		ug/kg	320	62.	1
Indeno(1,2,3-cd)pyrene	1600		ug/kg	430	74.	1
Pyrene	4300		ug/kg	320	53.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	82		23-120
2-Fluorobiphenyl	85		30-120
4-Terphenyl-d14	70		18-120

Project Name: LEGACY DEVELOPMENT
Project Number: T0395-018-001
Lab Number: L1942912
Report Date: 09/20/19

SAMPLE RESULTS

Lab ID: L1942912-03
Client ID: TP-6
Sample Location: 8 ST., LOUIS PLACE

Date Collected: 09/17/19 11:00
Date Received: 09/18/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 09/20/19 09:12
Analyst: IM
Percent Solids: 89%

Extraction Method: EPA 3546
Extraction Date: 09/19/19 06:18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	100	J	ug/kg	440	57.	1
Fluoranthene	2100		ug/kg	330	63.	1
Naphthalene	81	J	ug/kg	550	67.	1
Benzo(a)anthracene	980		ug/kg	330	62.	1
Benzo(a)pyrene	910		ug/kg	440	130	1
Benzo(b)fluoranthene	1300		ug/kg	330	92.	1
Benzo(k)fluoranthene	340		ug/kg	330	88.	1
Chrysene	920		ug/kg	330	57.	1
Acenaphthylene	210	J	ug/kg	440	84.	1
Anthracene	350		ug/kg	330	110	1
Benzo(ghi)perylene	640		ug/kg	440	64.	1
Fluorene	110	J	ug/kg	550	53.	1
Phenanthrene	1200		ug/kg	330	66.	1
Dibenzo(a,h)anthracene	140	J	ug/kg	330	63.	1
Indeno(1,2,3-cd)pyrene	640		ug/kg	440	76.	1
Pyrene	1800		ug/kg	330	54.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	58		23-120
2-Fluorobiphenyl	59		30-120
4-Terphenyl-d14	60		18-120

Project Name: LEGACY DEVELOPMENT
Project Number: T0395-018-001
Lab Number: L1942912
Report Date: 09/20/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 09/19/19 23:40
Analyst: IM

Extraction Method: EPA 3546
Extraction Date: 09/19/19 06:18

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1285950-1					
Acenaphthene	ND		ug/kg	130	17.
Fluoranthene	ND		ug/kg	100	19.
Naphthalene	ND		ug/kg	160	20.
Benzo(a)anthracene	ND		ug/kg	100	19.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	100	28.
Benzo(k)fluoranthene	ND		ug/kg	100	26.
Chrysene	ND		ug/kg	100	17.
Acenaphthylene	ND		ug/kg	130	26.
Anthracene	ND		ug/kg	100	32.
Benzo(ghi)perylene	ND		ug/kg	130	20.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	100	20.
Dibenzo(a,h)anthracene	ND		ug/kg	100	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	100	16.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	56		23-120
2-Fluorobiphenyl	61		30-120
4-Terphenyl-d14	68		18-120

Lab Control Sample Analysis

Batch Quality Control

Project Name: LEGACY DEVELOPMENT

Project Number: T0395-018-001

Lab Number: L1942912

Report Date: 09/20/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1285950-2 WG1285950-3								
Acenaphthene	75		68		31-137	10		50
Fluoranthene	82		71		40-140	14		50
Naphthalene	74		66		40-140	11		50
Benzo(a)anthracene	77		67		40-140	14		50
Benzo(a)pyrene	76		63		40-140	19		50
Benzo(b)fluoranthene	79		69		40-140	14		50
Benzo(k)fluoranthene	81		68		40-140	17		50
Chrysene	76		64		40-140	17		50
Acenaphthylene	82		75		40-140	9		50
Anthracene	79		69		40-140	14		50
Benzo(ghi)perylene	80		68		40-140	16		50
Fluorene	79		70		40-140	12		50
Phenanthrene	74		65		40-140	13		50
Dibenzo(a,h)anthracene	81		69		40-140	16		50
Indeno(1,2,3-cd)pyrene	82		70		40-140	16		50
Pyrene	81		70		35-142	15		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Nitrobenzene-d5	62		56		23-120
2-Fluorobiphenyl	66		60		30-120
4-Terphenyl-d14	69		59		18-120

METALS

Project Name: LEGACY DEVELOPMENT **Lab Number:** L1942912

Project Number: T0395-018-001 **Report Date:** 09/20/19

SAMPLE RESULTS

Lab ID: L1942912-01 Date Collected: 09/17/19 11:10

Client ID: TP-4 Date Received: 09/18/19

Sample Location: 8 ST., LOUIS PLACE Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 88%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	5.88		mg/kg	0.884	0.184	2	09/19/19 08:45	09/19/19 17:50	EPA 3050B	1,6010D	AB
Barium, Total	142		mg/kg	0.884	0.154	2	09/19/19 08:45	09/19/19 16:19	EPA 3050B	1,6010D	AB
Cadmium, Total	0.654	J	mg/kg	0.884	0.087	2	09/19/19 08:45	09/19/19 16:19	EPA 3050B	1,6010D	AB
Chromium, Total	5.87		mg/kg	0.884	0.085	2	09/19/19 08:45	09/19/19 16:19	EPA 3050B	1,6010D	AB
Lead, Total	680		mg/kg	4.42	0.237	2	09/19/19 08:45	09/19/19 16:19	EPA 3050B	1,6010D	AB
Mercury, Total	0.170		mg/kg	0.072	0.047	1	09/19/19 09:00	09/19/19 12:50	EPA 7471B	1,7471B	GD
Selenium, Total	0.230	J	mg/kg	1.77	0.228	2	09/19/19 08:45	09/19/19 16:19	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	0.884	0.250	2	09/19/19 08:45	09/19/19 16:19	EPA 3050B	1,6010D	AB

Project Name: LEGACY DEVELOPMENT **Lab Number:** L1942912

Project Number: T0395-018-001 **Report Date:** 09/20/19

SAMPLE RESULTS

Lab ID: L1942912-02 Date Collected: 09/17/19 11:20

Client ID: TP-5 Date Received: 09/18/19

Sample Location: 8 ST., LOUIS PLACE Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 92%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	3.34		mg/kg	0.423	0.088	1	09/19/19 08:45	09/19/19 12:45	EPA 3050B	1,6010D	LC
Barium, Total	36.3		mg/kg	0.423	0.074	1	09/19/19 08:45	09/19/19 12:45	EPA 3050B	1,6010D	LC
Cadmium, Total	0.165	J	mg/kg	0.423	0.042	1	09/19/19 08:45	09/19/19 12:45	EPA 3050B	1,6010D	LC
Chromium, Total	4.33		mg/kg	0.423	0.041	1	09/19/19 08:45	09/19/19 12:45	EPA 3050B	1,6010D	LC
Lead, Total	105		mg/kg	2.12	0.113	1	09/19/19 08:45	09/19/19 12:45	EPA 3050B	1,6010D	LC
Mercury, Total	0.278		mg/kg	0.069	0.045	1	09/19/19 09:00	09/19/19 12:52	EPA 7471B	1,7471B	GD
Selenium, Total	ND		mg/kg	0.846	0.109	1	09/19/19 08:45	09/19/19 12:45	EPA 3050B	1,6010D	LC
Silver, Total	ND		mg/kg	0.423	0.120	1	09/19/19 08:45	09/19/19 12:45	EPA 3050B	1,6010D	LC

Project Name: LEGACY DEVELOPMENT **Lab Number:** L1942912

Project Number: T0395-018-001 **Report Date:** 09/20/19

SAMPLE RESULTS

Lab ID: L1942912-03 Date Collected: 09/17/19 11:00

Client ID: TP-6 Date Received: 09/18/19

Sample Location: 8 ST., LOUIS PLACE Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 89%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	10.7		mg/kg	0.431	0.090	1	09/19/19 08:45	09/19/19 12:50	EPA 3050B	1,6010D	LC
Barium, Total	139		mg/kg	0.431	0.075	1	09/19/19 08:45	09/19/19 12:50	EPA 3050B	1,6010D	LC
Cadmium, Total	0.099	J	mg/kg	0.431	0.042	1	09/19/19 08:45	09/19/19 12:50	EPA 3050B	1,6010D	LC
Chromium, Total	5.79		mg/kg	0.431	0.041	1	09/19/19 08:45	09/19/19 12:50	EPA 3050B	1,6010D	LC
Lead, Total	528		mg/kg	2.15	0.115	1	09/19/19 08:45	09/19/19 12:50	EPA 3050B	1,6010D	LC
Mercury, Total	0.483		mg/kg	0.071	0.046	1	09/19/19 09:00	09/19/19 12:54	EPA 7471B	1,7471B	GD
Selenium, Total	0.513	J	mg/kg	0.862	0.111	1	09/19/19 08:45	09/19/19 12:50	EPA 3050B	1,6010D	LC
Silver, Total	0.125	J	mg/kg	0.431	0.122	1	09/19/19 08:45	09/19/19 12:50	EPA 3050B	1,6010D	LC

Project Name: LEGACY DEVELOPMENT **Lab Number:** L1942912

Project Number: T0395-018-001 **Report Date:** 09/20/19

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-03 Batch: WG1285973-1										
Arsenic, Total	ND		mg/kg	0.400	0.083	1	09/19/19 08:45	09/19/19 11:30	1,6010D	LC
Barium, Total	ND		mg/kg	0.400	0.070	1	09/19/19 08:45	09/19/19 11:30	1,6010D	LC
Cadmium, Total	ND		mg/kg	0.400	0.039	1	09/19/19 08:45	09/19/19 11:30	1,6010D	LC
Chromium, Total	ND		mg/kg	0.400	0.038	1	09/19/19 08:45	09/19/19 11:30	1,6010D	LC
Lead, Total	ND		mg/kg	2.00	0.107	1	09/19/19 08:45	09/19/19 11:30	1,6010D	LC
Selenium, Total	ND		mg/kg	0.800	0.103	1	09/19/19 08:45	09/19/19 11:30	1,6010D	LC
Silver, Total	ND		mg/kg	0.400	0.113	1	09/19/19 08:45	09/19/19 11:30	1,6010D	LC

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-03 Batch: WG1285979-1										
Mercury, Total	ND		mg/kg	0.083	0.054	1	09/19/19 09:00	09/19/19 12:32	1,7471B	GD

Prep Information

Digestion Method: EPA 7471B

Lab Control Sample Analysis

Batch Quality Control

Project Name: LEGACY DEVELOPMENT

Project Number: T0395-018-001

Lab Number: L1942912

Report Date: 09/20/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-03 Batch: WG1285973-2 SRM Lot Number: D105-540								
Arsenic, Total	112		-		70-130	-		
Barium, Total	92		-		75-125	-		
Cadmium, Total	98		-		75-125	-		
Chromium, Total	95		-		70-130	-		
Lead, Total	101		-		71-128	-		
Selenium, Total	107		-		63-137	-		
Silver, Total	100		-		69-131	-		
Total Metals - Mansfield Lab Associated sample(s): 01-03 Batch: WG1285979-2 SRM Lot Number: D105-540								
Mercury, Total	91		-		60-141	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: LEGACY DEVELOPMENT
Project Number: T0395-018-001

Lab Number: L1942912
Report Date: 09/20/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1285973-3 QC Sample: L1942986-01 Client ID: MS Sample												
Arsenic, Total	0.784	9.82	10.5	99		-	-		75-125	-		20
Barium, Total	29.1	164	178	91		-	-		75-125	-		20
Cadmium, Total	ND	4.17	3.67	88		-	-		75-125	-		20
Chromium, Total	4.86	16.4	19.7	91		-	-		75-125	-		20
Lead, Total	2.68	41.7	37.6	84		-	-		75-125	-		20
Selenium, Total	ND	9.82	8.92	91		-	-		75-125	-		20
Silver, Total	ND	24.5	21.6	88		-	-		75-125	-		20
Total Metals - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1285979-3 QC Sample: L1942870-01 Client ID: MS Sample												
Mercury, Total	ND	0.133	0.128	96		-	-		80-120	-		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: LEGACY DEVELOPMENT

Project Number: T0395-018-001

Lab Number: L1942912

Report Date: 09/20/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1285979-4 QC Sample: L1942870-01 Client ID: DUP Sample						
Mercury, Total	ND	ND	mg/kg	NC		20

INORGANICS
&
MISCELLANEOUS

Project Name: LEGACY DEVELOPMENT
Project Number: T0395-018-001
Lab Number: L1942912
Report Date: 09/20/19

SAMPLE RESULTS

Lab ID: L1942912-01
Client ID: TP-4
Sample Location: 8 ST., LOUIS PLACE
Sample Depth:
Matrix: Soil
Date Collected: 09/17/19 11:10
Date Received: 09/18/19
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	87.6		%	0.100	NA	1	-	09/19/19 07:56	121,2540G	RI

Project Name: LEGACY DEVELOPMENT
Project Number: T0395-018-001

Lab Number: L1942912
Report Date: 09/20/19

SAMPLE RESULTS

Lab ID: L1942912-02
Client ID: TP-5
Sample Location: 8 ST., LOUIS PLACE

Date Collected: 09/17/19 11:20
Date Received: 09/18/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	92.3		%	0.100	NA	1	-	09/19/19 07:56	121,2540G	RI

Project Name: LEGACY DEVELOPMENT
Project Number: T0395-018-001
Lab Number: L1942912
Report Date: 09/20/19

SAMPLE RESULTS

Lab ID: L1942912-03
Client ID: TP-6
Sample Location: 8 ST., LOUIS PLACE
Sample Depth:
Matrix: Soil

Date Collected: 09/17/19 11:00
Date Received: 09/18/19
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	89.2		%	0.100	NA	1	-	09/19/19 07:56	121,2540G	RI

Lab Duplicate Analysis

Batch Quality Control

Project Name: LEGACY DEVELOPMENT

Project Number: T0395-018-001

Lab Number: L1942912

Report Date: 09/20/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG1285980-1 QC Sample: L1942912-01 Client ID: TP-4						
Solids, Total	87.6	88.9	%	1		20

Project Name: LEGACY DEVELOPMENT
Project Number: T0395-018-001

Lab Number: L1942912
Report Date: 09/20/19

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1942912-01A	Glass 120ml/4oz unpreserved	A	NA		3.9	Y	Absent		AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PB-TI(180),SE-TI(180),HG-T(28),CD-TI(180)
L1942912-01B	Glass 120ml/4oz unpreserved	A	NA		3.9	Y	Absent		NYCP51-PAH(14),TS(7)
L1942912-02A	Glass 120ml/4oz unpreserved	A	NA		3.9	Y	Absent		AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PB-TI(180),SE-TI(180),HG-T(28),CD-TI(180)
L1942912-02B	Glass 120ml/4oz unpreserved	A	NA		3.9	Y	Absent		NYCP51-PAH(14),TS(7)
L1942912-03A	Glass 120ml/4oz unpreserved	A	NA		3.9	Y	Absent		AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PB-TI(180),SE-TI(180),HG-T(28),CD-TI(180)
L1942912-03B	Glass 120ml/4oz unpreserved	A	NA		3.9	Y	Absent		NYCP51-PAH(14),TS(7)

*Values in parentheses indicate holding time in days

Project Name:	LEGACY DEVELOPMENT	**Lab Number:**	L1942912
Project Number:	T0395-018-001	**Report Date:**	09/20/19

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: DU Report with 'J' Qualifiers

Project Name:	LEGACY DEVELOPMENT	**Lab Number:**	L1942912
Project Number:	T0395-018-001	**Report Date:**	09/20/19

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

Report Format: DU Report with 'J' Qualifiers

Project Name:	LEGACY DEVELOPMENT	**Lab Number:**	L1942912
Project Number:	T0395-018-001	**Report Date:**	09/20/19

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
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FAX: 508-898-9193

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Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 9/19/19

ALPHA Job #: L1942912

Client Information
Client: Turnkey Environmental
Address: 2558 Hamburg Turnpike
Buffalo, NY 14218
Phone: 716-856-0599
Fax:
Email: miesakowski@turnkey.llc.com

Project Information
Project Name: Legacy Development
Project Location: 8 St. Louis Place
Project #
(Use Project name as Project #) ☐
Project Manager:
ALPHAQuote #:

Turn-Around Time
Standard ☐ Due Date: 2 Day
Rush (only if pre approved) ☒ # of Days: TAT

Deliverables
☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information
☐ Same as Client Info
PO #

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PAHs	RCRA Metals	Sample Specific Comments	Total Bottle
42912 -01	TP-4	9-17-19	1110	Soil	CEH	X	X		2
-02	TP-5	9-17-19	1120	Soil	CEH	X	X		2
-03	TD-6	9-17-19	1100	Soil	CEH	X	X		2

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type	A	A							
Preservative	A	A							

Relinquished By:	Date/Time	Received By:	Date/Time
Charlie Hollister	9-17-19 / 1600	DAnson AAL	9/18/19 0940
DAnson AAL 9/18/19 D3			9/19/19 01:20

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

APPENDIX C

PROJECT DOCUMENTATION FORMS

INSPECTOR'S DAILY REPORT

CONTRACTOR			
CLIENT		DATE:	

LOCATION				DAY		JOB NO.	
WEATHER		TEMP	° F	START		END	

WORK PERFORMED:

CONTRACTOR ACTIVITIES:

[PUT CONTRACTOR ACTIVITIES HERE, BE SPECIFIC. TYPE OF EQUIPMENT, ACTIVITIES PERFORMED, BY WHOM, LOCATION OF LANDFILL ETC.]

TURNKEY ACTIVITIES:

[PUT ENGINEER ACTIVITIES HERE, BE SPECIFIC. TYPE OF EQUIPMENT, ACTIVITIES AND TESTING PERFORMED, SAMPLES COLLECTED, BY WHOM, LOCATION OF LANDFILL ETC.]

TEST PERFORMED		*QA PERSONNEL* SIGNATURE			
PICTURES TAKEN	none	REPORT NO.			
VISITORS	none	SHEET	1	OF	

INSPECTOR'S DAILY REPORT

MEETINGS HELD & RESULTS:

CONTRACTOR'S WORK FORCE AND EQUIPMENT

DESCRIPTION	*H*	#	*DESCRIPTION*	*H*	#	*DESCRIPTION*	*H*	#	*DESCRIPTION*	*H*	#
Field Engineer						Equipment			Front Loader Ton		
Superintendent			Ironworker			Generators			Bulldozer		
						Welding Equip.			DJ Dump truck		
Laborer-Foreman			Carpenter						Water Truck		
Laborer									Backhoe		
Operating Engineer			Concrete Finisher						Excavator		
						Roller			Pad foot roller		
Carpenter						Paving Equipment					
						Air Compressor					

REMARKS:

REFERENCES TO OTHER FORMS:

SAMPLES COLLECTED:					
SAMPLE NUMBER					
APPROX. LOCATION OF STOCKPILE					
NO. OF STOCKPILE					
DATE OF COLLECTION					
CLIMATOLOGIC CONDITIONS					
FIELD OBSERVATION		SHEET		OF	

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

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 D

SITE-SPECIFIC HEALTH AND SAFETY PLAN

SITE HEALTH AND SAFETY PLAN
for
BROWNFIELD CLEANUP PROGRAM
RI/IRM ACTIVITIES

8 ST. LOUIS PLACE SITE
BUFFALO, NEW YORK

October 2019 0395-018-001

Prepared for:

MAIN ST. LOUIS, L.P.

8 ST. LOUIS PLACE SITE
HEALTH AND SAFETY PLAN FOR RI/IRM ACTIVITIES

ACKNOWLEDGEMENT

Plan Reviewed by (initial):

Corporate Health and Safety Director: Thomas H. Forbes, P.E.

Project Manager: Bryan Mayback

Designated Site Safety and Health Officer: Bryan Mayback

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

8 ST. LOUIS PLACE SITE
HEALTH AND SAFETY PLAN FOR RI/IRM ACTIVITIES

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HEALTH AND SAFETY PLAN FOR RI/IRM ACTIVITIES

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8 ST. LOUIS PLACE SITE
HEALTH AND SAFETY PLAN FOR RI/IRM 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 and Benchmark Environmental Engineering & Science, PLLC and TurnKey Environmental Restoration, LLC employees (referred to jointly hereafter as "Benchmark-TurnKey") during Remedial Investigation (RI) and Interim Remedial Measures (IRM) activities at the 8 St. Louis Place Site (Site) located in the City of Buffalo, Erie County, New York. This HASP presents procedures for Benchmark-TurnKey employees who will be involved with RI/IRM 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 will consist of one (1) parcel totaling ±0.23-acres, located in a highly developed commercial and residential use area in the City of Buffalo, Erie County, New York (see Figures 1 and 2). The 8 St. Louis Place Site is located in Buffalo, New York, and identified with SBL 111.22-8-7.1.

The Site is a vacant asphalt parking lot that covers the majority of the property. The Site was primarily used for residential purposes. Based on historic records and previous investigation reports, multiple former buildings have been identified in connection with the Site.

Previous environmental investigations completed at the Site have identified elevated levels of polycyclic aromatic hydrocarbons (PAHs) and metals at concentrations exceeding 6NYCRR Part 375 Unrestricted Use and Restricted-Residential Use.

1.3 Known and Suspected Environmental Conditions

The Site is located of off St. Louis Place in a highly developed mixed-use area in the City of Buffalo. The Site is currently a vacant asphalt parking lot that covers the majority of the property.

Findings of the previous investigations are detailed below:

Phase I Environmental Site Assessment – April 2018

- Former on-Site buildings were found to be in connection with the Site, indicating possible fill materials from unknown origins were brought on-Site to bring the Site and former building areas to grade.
- Several depressions were noted within the asphalt paved areas of the Site and such are associated with settling backfill material in former building areas.

Limited Phase II Environmental Investigation Report – September 2019

- Under asphalt, which covers most of the Site, urban fill consisting of fine brick pieces, asphalt, stone, and metal was found from surface to approximately 6 fbgs
- The Site is underlain by urban fill impacted by PAHs at or above their respective Part 375 USCOs at five investigation locations, TP-1, TP-2, TP-4, TP-5 and TP-6.
  - Benzo(a)anthracene and Benzo(a)pyrene exceeded its RRSCO at four locations (TP-1, TP-2, TP-4, and TP-5).
  - Benzo(b)fluoranthene exceeded its RRSCO at five locations (TP-1, TP-2, TP-4, TP-5, and TP-6).
  - Benzo(k)fluoranthene exceeded its USCO at four locations (TP-1, TP-2, TP-4, and TP-5).
  - Chrysene exceeded its RRSCO at one location (TP-1) and its USCO at three locations (TP-2, TP-4, and TP-5).
  - Dibenzo(a,h)anthracene exceeded its RRSCO at four locations (TP-1, TP-2, TP-4, and TP-5).
  - Indeno(1,2,3-cd)pyrene exceeded its RRSCO at five locations (TP-1, TP-2, TP-4, TP-5, and TP-6).
- Metal analytes were detected above their respective USCOs at five investigation locations, TP-2, TP-3, TP-4, TP-5, and TP-6.
  - Lead exceeded its USCO at two locations (TP-3 and TP-5) and RRSCO at three locations (TP-2, TP-4, and TP-6).
  - Mercury exceeded its USCO at four locations (TP-2, TP-3, TP-5, and TP-6).

The RI will be performed in support of the BCP to further determine the nature and extent of impacts from these known environmental conditions and determine if other exist

on this parcel. As part of the RI, an IRM will be completed to immediately address known environmental impacts related to past uses of the Site. An IRM will quickly mitigate risks to public health and the environment attributable to petroleum contamination at the Site. Impacted soil will be removed and impacted groundwater (if encountered) will be extracted and treated during the IRM.

1.4 Parameters of Interest

Based on the previous investigations, constituents of potential concern (COPCs) in soil and, potentially groundwater, at the Site include:

- **Inorganic Compounds –** The inorganic COPCs potentially present at elevated concentrations are lead, and mercury.
- **Semi-Volatile Organic Compounds (SVOCs) –** SVOCs present at elevated concentrations may include polycyclic aromatic hydrocarbons (PAHs), which are byproducts of incomplete combustion and impurities in petroleum products.

1.5 Overview of RI/IRM Activities

Benchmark-TurnKey personnel will be on-site to observe and perform RI and IRM activities. The field activities to be completed as part of the RI and IRM are described below.

Remedial Investigation Activities

1. **Subsurface Soil Sampling:** Benchmark-TurnKey will complete test pits and collect subsurface soil samples for the purpose of determining the nature and extent of potential COPC impacts in the subsurface soil/fill.

2. **Monitoring Well Installation/Development and Sampling:** Benchmark-TurnKey will observe the installation of three (3) groundwater monitoring wells, develop the wells, and collect groundwater samples for the purpose of determining the nature and extent of potential COPC impacts.

Potential IRM Activities

1. **Soil Excavation:** The remediation contractor would perform soil excavation activities.

2. **Verification Sampling:** The remediation contractor, in association with Benchmark-TurnKey, will collect soil samples from the sidewalls and bottom of the excavations using a backhoe to verify that cleanup objectives have been met.

3. **Backfilling:** The remediation contractor would coordinate and perform backfilling activities, as necessary.

4. **Groundwater and Surface Management:** The remediation contractor will direct groundwater/surface water collection during soil excavation activities and coordinate disposal/treatment of the collected water, in association with Benchmark-TurnKey.

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 chapter also identifies other contractors and subcontractors involved in work operations and establish 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. Thomas H. Forbes, P.E.*** 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 Mayback.*** 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 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 SSHO for this Site is ***Mr. Bryan Mayback***. The qualified alternate SSHO is ***Mr. Christopher Boron.*** 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 personnel on the Site.
- Serving as the point of contact for safety and health matters.
- Ensuring that Benchmark 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.
- 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, inorganic and SVOC impacts have been identified in the fill material at the Site. 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.

- **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.

- **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.

- **Mercury (CAS #7439-97-6)** is used in industrial applications for the production of caustic and chlorine, and in electrical control equipment and apparatus. Overexposure to mercury may cause coughing, chest pains, bronchitis, pneumonia, indecision, headaches, fatigue, and salivation. Mercury is a skin and eye irritant.

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, if deemed necessary. 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/IRM field activities at the 8 St. Louis Place 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/IRM 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/IRM 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, an occupational health care provider under contract with Benchmark-TurnKey. Health Works is located in Seneca Square Plaza, 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

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 exist 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 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 in the Generic Community Air Monitoring Plan 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 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 from the field equipment 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 Benchmark-TurnKey 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 sustained ambient air concentration of organic vapors at the downwind perimeter of the exclusion zone exceeds 5 ppm above background for the 15-minute average, work activities will be temporarily halted and monitoring continued. If the sustained organic vapor decreases below 5 ppm over background, work activities can resume with continued monitoring.
  - If the sustained ambient air concentration of organic vapors at the downwind perimeter of the exclusion zone are greater than 5 ppm over background but less than 25 ppm for the 15-minute average, activities can resume provided that: the organic vapor level 200 feet downwind of the working site or half the distance to the nearest off-site residential or commercial structure, whichever

is less, but in no case less than 20 feet, is below 5 ppm over background; and more frequent intervals of monitoring, as directed by the Site Health and Safety Officer, are conducted.

- If the sustained organic vapor level is above 25 ppm at the perimeter of the exclusion zone for the 15-minute average, the Site Health and Safety Officer must be notified and work activities shut down. The Site Health and Safety Officer will determine when re-entry of the exclusion zone is possible and will implement downwind air monitoring to ensure vapor emissions do not impact the nearest off-site residential or commercial structure at levels exceeding those specified in the ***Organic Vapor Contingency Monitoring Plan*** below. All readings will be recorded and will be available for New York State Department of Environmental Conservation (DEC) and Department of Health (DOH) personnel to review.

o **ORGANIC VAPOR CONTINGENCY MONITORING PLAN:**

- If the sustained organic vapor level is greater than 5 ppm over background 200 feet downwind from the work area or half the distance to the nearest off-site residential or commercial property, whichever is less, all work activities must be halted.

- If, following the cessation of the work activities or as the result of an emergency, sustained organic levels persist above 5 ppm above background 200 feet downwind or half the distance to the nearest off-site residential or commercial property from the work area, then the air quality must be monitored within 20 feet of the perimeter of the nearest off-site residential or commercial structure (20-foot zone).

- If efforts to abate the emission source are unsuccessful and if sustained organic vapor levels approach or exceed 5 ppm above background within the 20-foot zone for more than 30 minutes, or are sustained at levels greater than 10 ppm above background for longer than one minute, then the ***Major Vapor Emission Response Plan*** (see below) will automatically be placed into effect.

o **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. Frequent air monitoring will be conducted at 30-minute intervals within the 20-foot zone. If two sustained successive readings below action levels are measured, air monitoring may be halted or modified by the Site Health and Safety Officer.

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/IRM 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 a heated area, 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. Flagging tape will delineate the zone. 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 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

The Contractor in accordance with his approved Health and Safety Plan in the Contamination Reduction Zone will conduct decontamination of heavy equipment. As a minimum, this will include manually removing heavy soil contamination, followed by steam cleaning on an impermeable pad.

Benchmark-TurnKey personnel will conduct decontamination of all tools used for sample collection purposes. 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/IRM 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. New York State Department of Environmental Conservation. *DER-10; Technical Guidance for Site Investigation and Remediation.* May 2010.

TABLES

BENCHMARK TURNKEY

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TURNKEY ENVIRONMENTAL RESTORATION, LLC

TABLE 1

TOXICITY DATA FOR CONSTITUENTS OF POTENTIAL CONCERN

8 ST. LOUIS PLACE SITE

BUFFALO, NEW YORK

Parameter	Synonyms	CAS No.	Code	Concentration Limits [1]		
				PEL	TLV	IDLH
Semi-volatile Organic Compounds (SVOCs) [2] : ppm						
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*	--	--	--
Indeno(1,2,3-cd)pyrene	*none*	193-39-5	*none*	--	--	--
Inorganic Compounds: mg/m [2]						
Lead	*none*	7439-92-1	*none*	0.05	0.15	100
Mercury	*none*	7439-97-6	C-0.1	0.1	0.05	10

Notes:

1. Concentration limits as reported by NIOSH Pocket Guide to Chemical Hazards, February 2004 (NIOSH Publication No. 97-140, fourth printing with chages and updates.
2. " -- " = concentration limit not available; exposure should be minimized to the extent feasible through appropriate engineering controls & PPE.

Explanation:

Ca = NIOSH considers constituent to be a potential occupational carcinogen.
IDLH = Immediately Dangerous to Life or Health.
TLV = Threshold Limit Value, established by American Conference of Industrial Hygienists (ACGIH), equals the maximum exposure concentration allowable for 8 hours/day @ 40 ho
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-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

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TURNKEY ENVIRONMENTAL RESTORATION, LLC

TABLE 2

POTENTIAL ROUTES OF EXPOSURE TO THE CONSTITUENTS OF POTENTIAL CONCERN

8 ST. LOUIS PLACE SITE
BUFFALO, NEW YORK

Activity [1]	Direct Contact with Soil/Fill	Inhalation of Vapors or Dust	Direct Contact with Groundwater
Remedial Investigation Tasks			
1. Subsurface Soil Sampling	x	x	
2. Monitoring Well Installation/Development and Sampling	x	x	x
Interim Remedial Measures Tasks			
1. Soil Excavation	x	x	
2. Backfilling	x	x	
3. Verification Sampling	x	x	
4. Groundwater and Surface Water Management	x		x

Notes:
1. Activity as described in Section 1.5 of the Health and Safety Plan.

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TURNKEY ENVIRONMENTAL RESTORATION, LLC

TABLE 3

REQUIRED LEVELS OF PROTECTION
FOR RI/IRM TASKS

8 ST. LOUIS STREET SITE
BUFFALO, NEW YORK

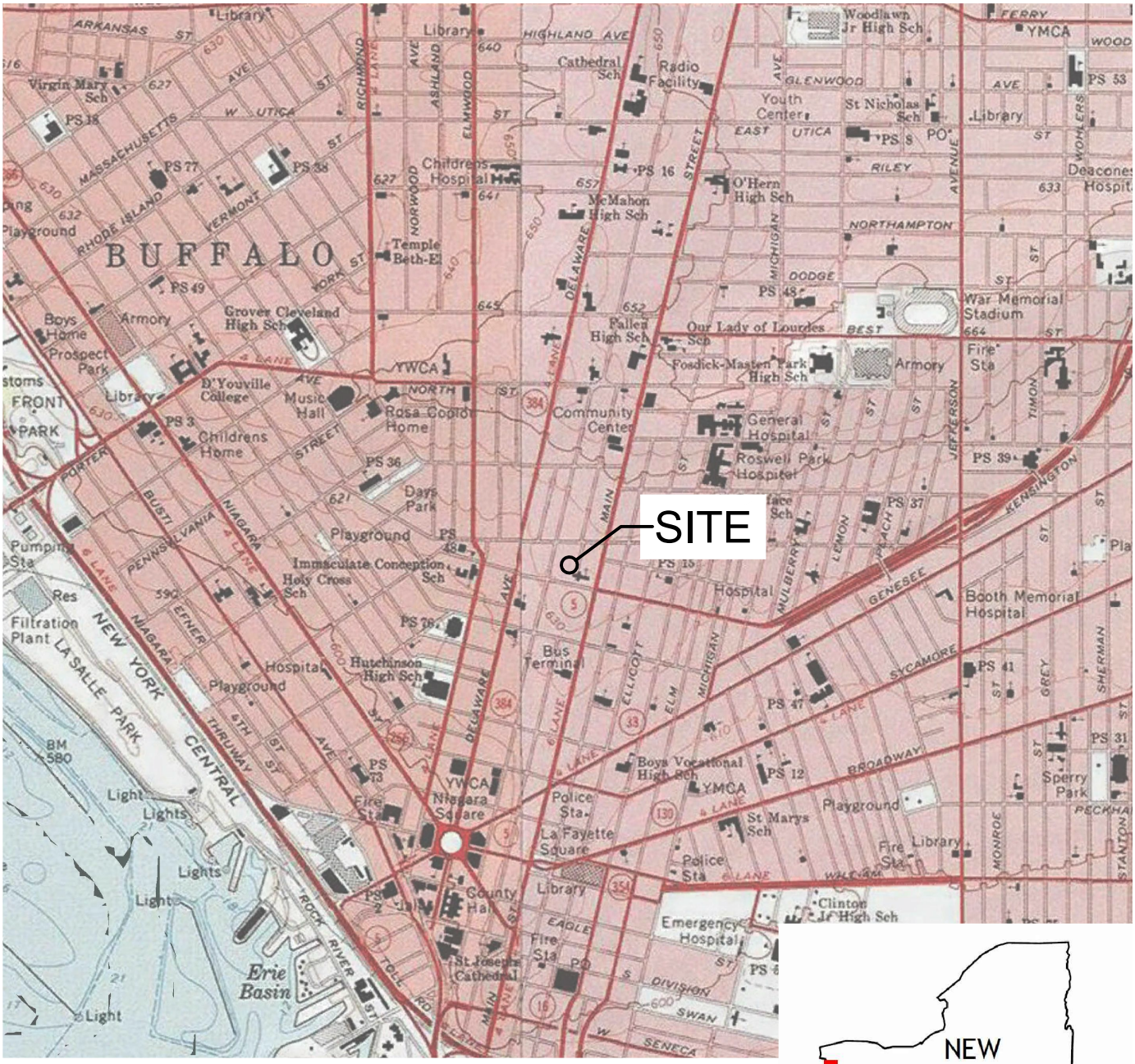
Activity	Respiratory Protection [1]	Clothing	Gloves [2]	Boots [2, 3]	Other Required PPE/Modifications [2, 4]
Remedial Investigation Tasks					
1. Subsurface Soil Sampling	Level D (upgrade to Level C if necessary)	Work Uniform or Tyvek	L/N	outer: L inner: STSS	HH SGSS
2. Monitoring Well Installation/Development and Sampling	Level D (upgrade to Level C if necessary)	Work Uniform or Tyvek	L/N	outer: L inner: STSS	SGSS
Interim Remedial Measures Tasks					
1. Soil Excavation	Level D (upgrade to Level C if necessary)	Work Uniform or Tyvek	L/N	outer: L inner: STSS	HH SGSS
2. Backfilling	Level D (upgrade to Level C if necessary)	Work Uniform or Tyvek	L/N	outer: L inner: STSS	HH SGSS
3. Verification Sampling	Level D (upgrade to Level C if necessary)	Work Uniform or Tyvek	L/N	outer: L inner: STSS	HH SGSS
4. Groundwater and Surface Water Management	Level D (upgrade to Level C if necessary)	Work Uniform or Tyvek	L/N	outer: L inner: STSS	HH 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; S = Saranex; SG = safety glasses; 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

FIGURE 1



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

PROJECT NO.: 0395-018-001

DATE: OCTOBER 2019

DRAFTED BY: CEH

SITE LOCATION AND VICINITY MAP

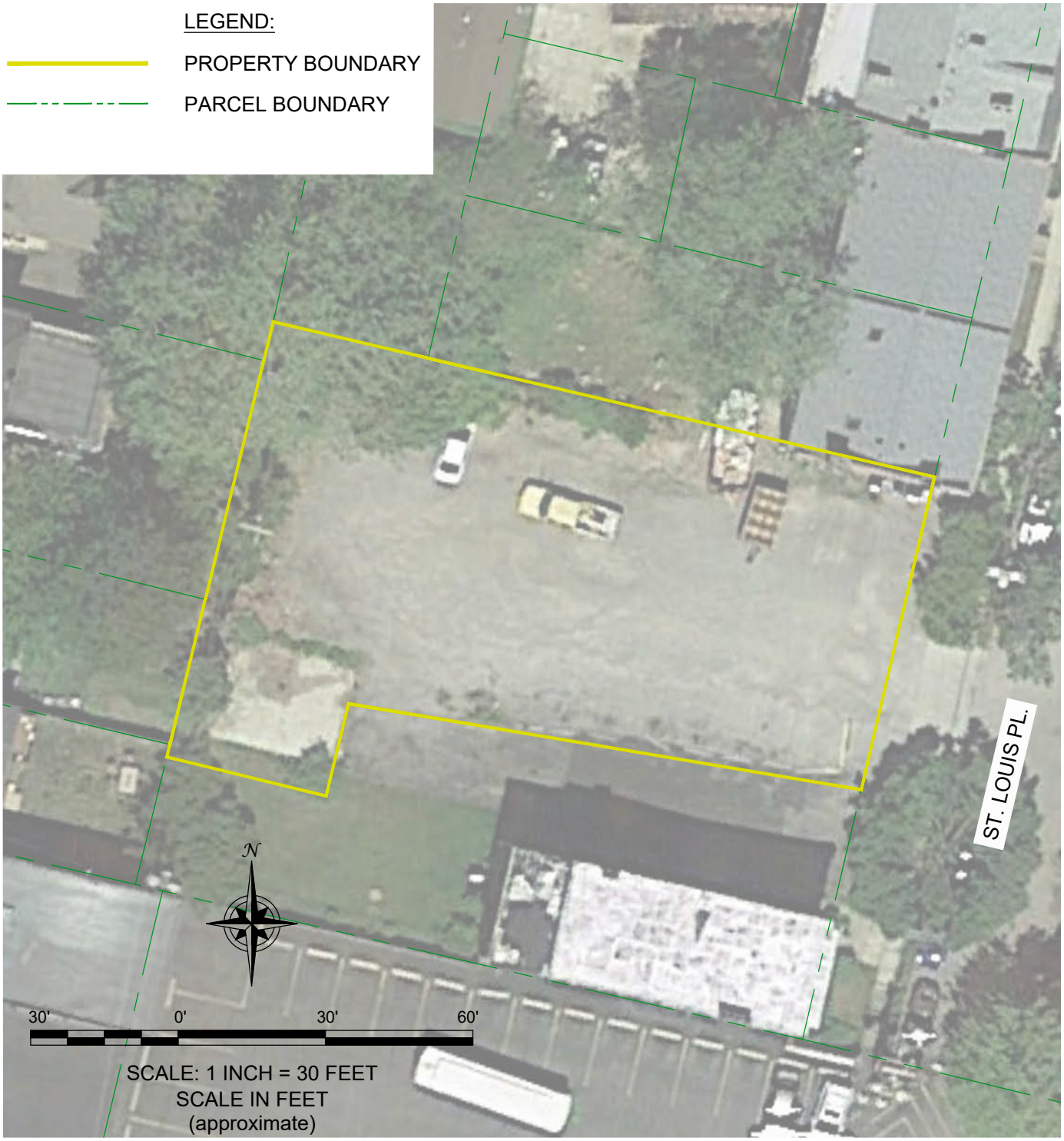
HEALTH AND SAFETY PLAN

8 SAINT LOUIS PLACE
BUFFALO, NEW YOTK

PREPARED FOR
MAIN ST LOUIS LP

DISCLAIMER: ***PROPERTY OF BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC. & TURNKEY ENVIRONMENTAL RESTORATION, LLC*** *IMPORTANT: THIS DRAWING PRINT IS LOANED FOR MUTUAL ASSISTANCE AND AS SUCH IS SUBJECT TO RECALL AT ANY TIME. INFORMATION CONTAINED HEREON IS NOT TO BE DISCLOSED OR REPRODUCED IN ANY FORM FOR THE BENEFIT OF PARTIES OTHER THAN NECESSARY SUBCONTRACTORS & SUPPLIERS WITHOUT THE WRITTEN CONSENT OF BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC & TURNKEY ENVIRONMENTAL RESTORATION, LLC.*

FIGURE 2



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

PROJECT NO.: 0395-018-001

DATE: OCTOBER 2019

DRAFTED BY: CEH

SITE PLAN (AERIAL)

HEALTH AND SAFETY PLAN

8 SAINT LOUIS PLACE
BUFFALO, NEW YORK

PREPARED FOR
MAIN ST LOUIS LP

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ATTACHMENT A

EMERGENCY RESPONSE PLAN

BENCHMARK TURNKEY

EMERGENCY RESPONSE PLAN
for
BROWNFIELD CLEANUP PROGRAM
RI/IRM ACTIVITIES

8 ST. LOUIS PLACE
BUFFALO, NEW YORK

October 2019 0395-018-001

Prepared for:

LEGACY DEVELOPMENT

8 ST. LOUIS PLACE SITE
HEALTH AND SAFETY PLAN FOR RI/IRM 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) and Interim Remedial Measures (IRM) activities at the 8 St. Louis Place 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

Source of Emergency:

1. Slip/trip/fall

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 in 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-TurnKey personnel field vehicle.

5.0 EMERGENCY CONTACTS

The following identifies the emergency contacts for this ERP.

Emergency Telephone Numbers:

Project Manager: *Bryan Mayback*
Work: (716) 856-0599
Mobile: (716) 844-1699

Corporate Health and Safety Director: *Thomas H. Forbes*
Work: (716) 856-0599
Mobile: (716) 864-1730

Site Safety and Health Officer (SSHO): *Bryan Mayback*
Work: (716) 856-0599
Mobile: (716) 844-1699

Alternate SSHO: *Christopher Boron*
Work: (716) 856-0599
Mobile: (716) 864-2726

BUFFALO GENERAL HOSPITAL (ER):	(716) 748-2100
FIRE:	911
AMBULANCE:	911
BUFFALO POLICE:	911
STATE EMERGENCY RESPONSE HOTLINE:	(800) 457-7362
NATIONAL RESPONSE HOTLINE:	(800) 424-8802
NYSDOH:	(716) 847-4385
NYSDEC:	(716) 851-7220
NYSDEC 24-HOUR SPILL HOTLINE:	(800) 457-7252

The Site location is:

8 St. Louis Place
Buffalo, New York 14216
Site Phone Number: Benchmark-TurnKey Staff Cell Phones to be used.

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 all personnel entering the site understand an adequate method of internal communication. 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 Mayback*** or ***Christopher Boron***) 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 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 Buffalo General Hospital.

- Inhalation: Move to fresh air and, if necessary, transport to Hospital.

- Ingestion: Decontaminate and transport to 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 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 Buffalo General Hospital (see Figure 1):

The following directions describe the best route from the Site to Buffalo General Hospital:

- Travel north St. Louis Place toward Virginia Street
- Turn right (east) onto Virginia Street
- Turn left (north) onto Main Street
- Turn right (east) onto High Street
- Turn left (north) into Buffalo General Hospital
  (0.5 miles total)

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

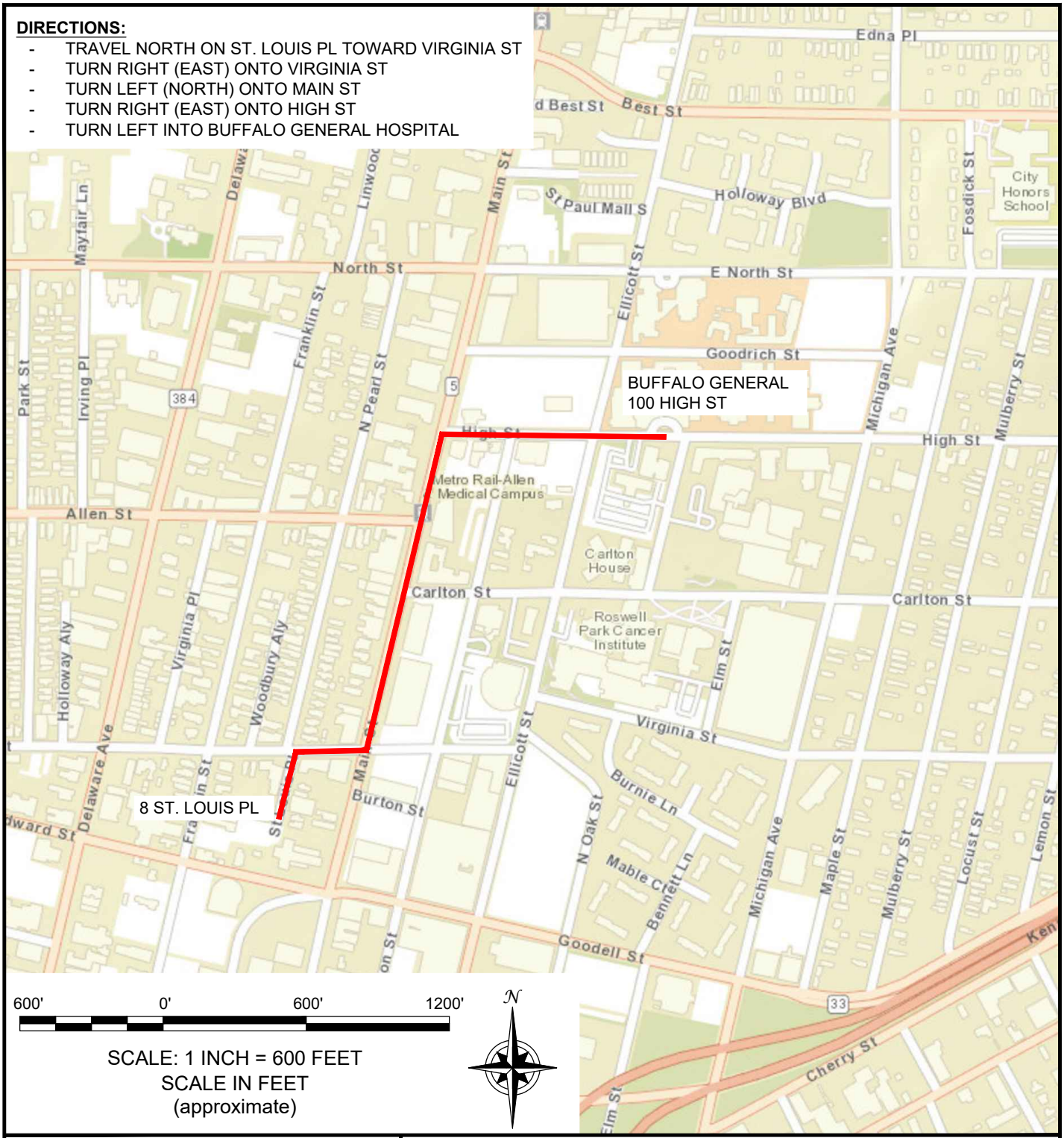
All persons who enter the worksite, including visitors, shall receive a site-specific briefing about anticipated emergency situations and the emergency procedures by the SSHO. Where this site relies on off-site organizations for emergency response, the training of personnel in those off-site organizations has been evaluated and is deemed adequate for response to this site.

FIGURES

FIGURE 1

DIRECTIONS:

- TRAVEL NORTH ON ST. LOUIS PL TOWARD VIRGINIA ST
- TURN RIGHT (EAST) ONTO VIRGINIA ST
- TURN LEFT (NORTH) ONTO MAIN ST
- TURN RIGHT (EAST) ONTO HIGH ST
- TURN LEFT INTO BUFFALO GENERAL HOSPITAL



600' 0' 600' 1200'

SCALE: 1 INCH = 600 FEET
SCALE IN FEET
(approximate)

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TURNKEY ENVIRONMENTAL RESTORATION, LLC

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

PROJECT NO.: 0395-018-001

DATE: OCTOBER 2019

DRAFTED BY: CEH

HOSPITAL ROUTE MAP

EMERGENCY RESPONSE PLAN

8 SAINT LOUIS PLACE
BUFFALO, NEW YOTK

PREPARED FOR

MAIN ST LOUIS LP

DISCLAIMER: ***PROPERTY OF BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC. & TURNKEY ENVIRONMENTAL RESTORATION, LLC*** *IMPORTANT: THIS DRAWING PRINT IS LOANED FOR MUTUAL ASSISTANCE AND AS SUCH IS SUBJECT TO RECALL AT ANY TIME. INFORMATION CONTAINED HEREON IS NOT TO BE DISCLOSED OR REPRODUCED IN ANY FORM FOR THE BENEFIT OF PARTIES OTHER THAN NECESSARY SUBCONTRACTORS & SUPPLIERS WITHOUT THE WRITTEN CONSENT OF BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC & TURNKEY ENVIRONMENTAL RESTORATION, LLC.*

ATTACHMENT 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:

ATTACHMENT C

NYSDOH GENERIC COMMUNITY AIR MONITORING PLAN

BENCHMARK TURNKEY

Appendix C1
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 C2
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

FIELD OPERATING PROCEDURES

SUMMARY OF FIELD OPERATING PROCEDURES
REMEDIAL INVESTIGATION WORK PLAN
8 ST. LOUIS PLACE SITE
BUFFALO, NEW YORK

FOP Number	Description	No. of Attachments	Total Pages	FOPs Referenced
007.0	Calibration and Maintenance of Portable Dissolved Oxygen Meter	1	3	--
008.0	Calibration and Maintenance of Portable Field pH/Eh Meter	1	4	--
009.0	Calibration and Maintenance of Portable Field Turbidity Meter	1	7	--
011.1	Calibration and Maintenance of Portable Photoionization Detector	3	31	--
012.0	Calibration and Maintenance of Portable Specific Conductance Meter	1	5	--
013.0	Composite Sample Collection Procedure for Non-Volatile Organic Analysis	1	3	040, 046
015.0	Documentation Requirements for Drilling and Well Installation	6	11	--
017.0	Drill Site Selection Procedure	0	1	--
018.0	Drilling and Excavation Equipment Decontamination Procedures	0	2	--
021.0	Establishing Horizontal and Vertical Control	0	2	--
022.0	Groundwater Level Measurement	1	3	040
023.1	Groundwater Purging Procedures Prior to Sample Collection	2	8	011, 022, 024, 040
024.1	Groundwater Sample Collection Procedures	1	10	007, 008, 009, 011, 012, 022, 023, 031, 040, 046
024.2	Groundwater Sample Collection Procedures for PFOAs & PFOS	1	12	007, 008, 009, 011, 012, 022, 023, 031, 040, 046
025.0	Hand Augering Procedure	1	3	013, 017, 040, 046, 054, 057
026.1	Hollow Stem Auger (HSA) Drilling Procedures	2	6	001, 010, 011, 017, 018, 058
031.2	Low Flow (Minimal Drawdown) Groundwater Purging & Sampling Procedure	1	7	007, 008, 009, 011, 012, 022, 024, 040, 046
032.1	Management of Investigation-Derived Waste (IDW)	2	5	--
033.0	Monitoring Well Construction for Hollow Stem Auger Boreholes	2	6	015, 026, 032, 036
036.0	Monitoring Well Development Procedures	1	3	015, 040
039.1	NAPL Detection and Sample Collection Procedure	1	7	011, 040, 046
040.1	Non-Disposable and Non-Dedicated Sampling Equipment Decontamination	0	4	032
041.0	Overburden Casing Installation Procedure	3	7	018
046.0	Sample Labeling, Storage and Shipment Procedures	5	9	--
047.0	Screening of Soil Samples for Organic Vapors During Drilling Activities	2	4	010, 011, 015, 058
054.2	Soil Description Procedures Using The Visual-Manual Method	5	22	010, 011, 015, 025, 032, 046, 047, 058, 065
057.0	Soil Sample Collection for VOC Analysis - EnCore Sampling	1	6	046
058.0	Split-Spoon Sampling Procedures	0	3	015, 046, 047, 054
063.2	Surface and Subsurface Soil Sampling Procedures	3	7	006, 010, 011, 040, 046, 073
065.1	Test Pit Excavation and Logging Procedures	3	7	006, 010, 011, 018, 063
073.2	Real-Time Air Monitoring During Intrusive Activities	1	12	006, 010, 011, 084
076.0	"Before Going Into the Field" Procedure	0	4	--
078.0	Geoprobe Drilling Procedures	2	6	001, 017, 018, 054, 077
079.0	Stockpile Sampling Procedures for Chemical Analysis	0	3	046
080.0	Stockpile-Borrow Source Sampling Procedures for Physical Analysis	1	5	--
082.0	Waste Sampling Procedures	1	15	011, 046
085.0	Field Quality Control Procedures	0	3	040
090.0	Outdoor Ambient Air VOC Sample Collection Procedure	1	6	--

Notes:
1. FOPs are identified by the sequential FOP number and revision number. For example, FOP number 011.1 indicates FOP 11, revision 1.

TurnKey Environmental Restoration, LLC

Field Operating Procedures

Calibration & 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

EQUIPMENT CALIBRATION

PROJECT INFORMATION:

Project Name: Date:

Project No.:

Client: Instrument Source: ☐ TK ☐ 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:**

TurnKey Environmental Restoration, LLC

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

EQUIPMENT CALIBRATION

PROJECT INFORMATION:

Project Name: Date:

Project No.:

Client: Instrument Source: ☐ TK ☐ 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:**

TurnKey Environmental Restoration, LLC

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

EQUIPMENT CALIBRATION

PROJECT INFORMATION:

Project Name: Date:

Project No.:

Client: Instrument Source: ☐ TK ☐ 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:**

TurnKey Environmental Restoration, LLC

Field Operating Procedures

Calibration & Maintenance of Portable Flame Ionization Detector

FOP 010.0

CALIBRATION AND MAINTENANCE OF PORTABLE FLAME IONIZATION DECTECTOR

PURPOSE

This guideline presents a general description of the method for calibration and maintenance of a portable flame ionization detector (FID). The FID detects and initially quantifies a reading of the volatile organic compound (VOC) concentration in air. The FID is used as a field-screening tool for initial evaluation of soil samples and for ambient air monitoring. In order to ensure an accurate reading, the FID must be calibrated prior to use in the field.

Although 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 Sensidyne Portable Flame Ionization Detector. The actual equipment to be used in the field will be equivalent or similar.

The FID indicates total VOC concentration readings, which are normalized to a methane standard, so actual quantification of individual compounds is not provided. In addition, the FID response to compounds is highly variable, dependent on the structure of the compound and the presence or absence of other compounds. In the calibration mode, a methane standard of 200 parts per million by volume (ppmv) is used, and the desired accuracy at this concentration is $\pm$ 50 ppmv.

PROCEDURE

1. Zero the machine.

2. Calibrate all field test equipment at the beginning of each sampling day and check and recalibrate according to the manufacture's specifications.

3. Calibrate the FID meter using a compressed gas cylinder containing 200 ppmv methane in air, a 2 liter per minute flow regulator, and a tubing assembly.

4. Assemble the calibration equipment and actuate the FID. Insert the probe into the calibration assembly and wait for a stable indication. Remove the cover over the calibration adjustment screw. Using a slotted screwdriver, turn the adjustment screw until the meter reads exactly 200 ppmv.

5. Replace the adjustment screw cover and deactivate the FID.

6. 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 instrument adjustments. 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 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

- The probe and handle of the FID should be checked before and after every use for cleanliness and worn or damaged parts. Drain the water trap in the handle as needed. Remove any other condensation with a clean cloth or

tissue. The dust filter and hydrophobic filters should be inspected and cleaned between use.

- The FID battery must be recharged when the battery level indicator is in the red sector. It is also recommended that the battery be recharged every month the instrument is not used frequently. Replace the instrument's hydrogen carrier gas as necessary.

- Store the FID in its carrying case when not in use. Additional maintenance details related to individual components of the FID 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

Equipment Calibration Log (sample)

FOP 010.0

CALIBRATION AND MAINTENANCE OF PORTABLE FLAME IONIZATION DECTECTOR

EQUIPMENT CALIBRATION

PROJECT INFORMATION:

Project Name: Date:

Project No.:

Client: Instrument Source: ☐ TK ☐ 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:**

TurnKey Environmental Restoration, LLC

Field Operating Procedures

Calibration and Maintenance of Portable Photoionization Meter

FOP 011.1

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 9.8, 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., 9.8, 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. Compound-specific calibration methods should be selected on a project-by-project basis to increase the accuracy of the instrument. The best way to calibrate a PID to different compounds is to use a standard of the gas of interest. However, correction factors have been determined that enable the user to quantify a large number of chemicals using only a single calibration gas, typically isobutylene. 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.

CALIBRATION AND MAINTENANCE OF PORTABLE PHOTOIONIZATION DETECTOR

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 MiniRAE 2000 Portable VOC Monitor equipped with a 10.6 eV lamp. The actual equipment to be used in the field will be equivalent or similar. The following information is provided for general reference; the equipment-specific manufacturer's manual should be followed with precedence over this FOP.

Note: The PID indicates total VOC concentration readings that are normalized to a calibration 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 MiniRAE 2000 is accurate to ± 2 ppm or 10% of the reading for concentrations ranging from 0-2,000 ppm and ± 20% of the reading at concentrations greater than 2,000 ppm. Response time is less than two seconds to 90 percent of full-scale. The operating temperature range is 0 to 45° C and the operating humidity range is 0 to 95 % relative humidity (non-condensing).

CALIBRATION PROCEDURE

The calibration method and correction factor, if applicable, will be selected on a project-by-project basis and confirmed with the Project Manager prior to the start of field work.

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 using a compressed gas cylinder or equivalent containing the calibration 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 the calibration standard gas.

4. Assemble the calibration equipment and actuate the PID in its calibration mode.

5. Select the appropriate calibration method. Calibration may be completed with two methods: 1) where the calibration standard gas is the same as the measurement gas (no correction factor is applied) or 2) where the calibration standard gas is not the same as the measurement gas and a correction factor will be applied. An isobutylene standard gas must be used as the calibration standard gas for the use of correction factors with the MiniRAE 2000. See below for additional instructions for calibration specific to use with or without correction factors.

Calibrating Without a Correction Factor

Navigate within the menu to select the "cal memory" for the specific calibration standard gas prior to calibration. The default gas selections for the MiniRAE 2000 are as follows:

Cal Memory #0	Isobutylene
Cal Memory #1	Hexane
Cal Memory #2	Xylene
Cal Memory #3	Benzene
Cal Memory #4	Styrene
Cal Memory #5	Toluene
Cal Memory #6	Vinyl Chloride
Cal Memory #7	Custom

The calibration standard gas for Cal Memory #1-7 may be toggled for selection of any of the approximately 100 preprogrammed calibration standard gases for use without an applied correction factor (i.e., the calibration gas must be the same as the measurement gas).

Calibrating With a Correction Factor

Navigate within the menu to select the "Cal Memory".

Select "Cal Memory #0" and toggle for selection of any of the approximately 100 preprogrammed chemicals. During calibration, the unit requests isobutylene gas and displays the isobutylene concentration immediately following calibration, but when the unit is returned to the normal reading mode, it displays the selected chemical and applies the correction factor.

If the pre-programmed list does not include the desired chemical or a user-defined measurement gas and correction factor is desired, toggle Cal Memory #0 to "user defined custom gas". A list of approximately 300 correction factors is attached in Technical Note 106 generated by MiniRAE.

6. Once the PID settings have been verified, connect the PID probe to the zero air calibration bag (or calibrate to ambient air if conditions permit) and wait for a stable indication.

7. Connect the PID probe to the calibration standard bag. Measure an initial reading of the standard and wait for a stable indication.

8. Keep the PID probe connected to the calibration standard bag, calibrate to applicable concentration (typically 100 ppm with isobutylene) with the standard and wait for a stable indication.

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 calibration standard and concentration
- Correction factors used, if any
- The brand and expiration date of the calibration standard 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)
Technical Note TN-106

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 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		4.00		
						7.00		
						10.01		
☐ Turbidity meter	NTU		Hach 2100P Turbidimeter	9706000145		< 0.4		
						00		
						800		
☐ Sp. Cond. meter	uS mS		Myron L Company Ultra Meter 6P			_____ mS @ 25 °C		
☐ PID	ppm		MinRAE 20			open air zero		MIBK response factor = 1.0
						_____ ppm Iso. Gas		
☐ Dissolved Oxygen	ppm		YSI Model 5					
☐ 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:**

Correction Factors, Ionization Energies*, And Calibration Characteristics

Correction Factors and Ionization Energies

RAE Systems PIDs can be used for the detection of a wide variety of gases that exhibit different responses. In general, any compound with ionization energy (IE) lower than that of the lamp photons can be measured.* The best way to calibrate a PID to different compounds is to use a standard of the gas of interest. However, correction factors have been determined that enable the user to quantify a large number of chemicals using only a single calibration gas, typically isobutylene. In our PIDs, correction factors can be used in one of three ways:

1) Calibrate the monitor with isobutylene in the usual fashion to read in isobutylene equivalents. Manually multiply the reading by the correction factor (CF) to obtain the concentration of the gas being measured.

2) Calibrate the unit with isobutylene in the usual fashion to read in isobutylene equivalents. Call up the correction factor from the instrument memory or download it from a personal computer and then call it up. The monitor will then read directly in units of the gas of interest.

3) Calibrate the unit with isobutylene, but input an equivalent, "corrected" span gas concentration when prompted for this value. The unit will then read directly in units of the gas of interest.

* *The term "ionization energy" is more scientifically correct and replaces the old term "ionization potential." High-boiling ("heavy") compounds may not vaporize enough to give a response even when their ionization energies are below the lamp photon energy. Some inorganic compounds like H_2O_2 and NO_2 give weak response even when their ionization energies are well below the lamp photon energy.*

Example 1:
With the unit calibrated to read isobutylene equivalents, the reading is 10 ppm with a 10.6 eV lamp. The gas being measured is butyl acetate, which has a correction factor of 2.6. Multiplying 10 by 2.6 gives an adjusted butyl acetate value of 26 ppm. Similarly, if the gas being measured were trichloroethylene (CF = 0.54), the adjusted value with a 10 ppm reading would be 5.4 ppm.

Example 2:
With the unit calibrated to read isobutylene equivalents, the reading is 100 ppm with a 10.6 eV lamp. The gas measured is m-xylene (CF = 0.43). After downloading this factor, the unit should read about 43 ppm when exposed to the same gas, and thus read directly in m-xylene values.

Example 3:
The desired gas to measure is ethylene dichloride (EDC). The CF is 0.6 with an 11.7 eV lamp. During calibration with 100 ppm isobutylene, insert 0.6 times 100, or 60 at the prompt for the calibration gas concentration. The unit then reads directly in EDC values.

Conversion to mg/m^3

To convert from ppm to mg/m^3, use the following formula:

$$\text{Conc.}\ (mg/m^3) = \frac{[\text{Conc.(ppmv)} \times \text{mol. wt. (g/mole)}]}{\text{molar gas volume (L)}}$$

For air at 25 °C (77 °F), the molar gas volume is 24.4 L/mole and the formula reduces to:

$$\text{Conc.}(mg/m^3) = \text{Conc.(ppmv)} \times \text{mol. wt. (g/mole)} \times 0.041$$

For example, if the instrument is calibrated with a gas standard in ppmv, such as 100 ppm isobutylene, and the user wants the display to read in mg/m^3 of hexane, whose m.w. is 86 and CF is 4.3, the overall correction factor would be 4.3 x 86 x 0.041 equals 15.2.

Correction Factors for Mixtures

The correction factor for a mixture is calculated from the sum of the mole fractions Xi of each component divided by their respective correction factors CFi:

$$CFmix = 1 / (X_1/CF_1 + X_2/CF_2 + X_3/CF_3 + \ldots Xi/CFi)$$

Thus, for example, a vapor phase mixture of 5% benzene and 95% n-hexane would have a CFmix of CFmix = 1 / (0.05/0.53 + 0.95/4.3) = 3.2. A reading of 100 would then correspond to 320 ppm of the total mixture, comprised of 16 ppm benzene and 304 ppm hexane.

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For a spreadsheet to compute the correction factor and TLV of a mixture see the appendix at the end of the CF table.

TLVs and Alarm Limits for Mixtures

The correction factor for mixtures can be used to set alarm limits for mixtures. To do this one first needs to calculate the exposure limit for the mixture. The Threshold Limit Value (TLV) often defines exposure limits. The TLV for the mixture is calculated in a manner similar to the CF calculation:

$$TLV\ mix = 1 / (X_1/TLV_1 + X_2/TLV_2 + X_3/TLV_3 + ... Xi/TLVi)$$

In the above example, the 8-h TLV for benzene is 0.5 ppm and for n-hexane 50 ppm. Therefore the TLV of the mixture is TLVmix = 1 / (0.05/0.5 + 0.95/50) = 8.4 ppm, corresponding to 8.0 ppm hexane and 0.4 ppm benzene. For an instrument calibrated on isobutylene, the reading corrsponding to the TLV is:

$$Alarm\ Reading = TLVmix / CFmix = 8.4 / 3.2 = 2.6\ ppm$$

A common practice is to set the lower alarm limit to half the TLV, and the higher limit to the TLV. Thus, one would set the alarms to 1.3 and 2.6 ppm, respectively.

Calibration Characteristics

a) Flow Configuration. PID response is essentially independent of gas flow rate as long as it is sufficient to satisfy the pump demand. Four main flow configurations are used for calibrating a PID:

1) **Pressurized gas cylinder (Fixed-flow regulator):** The flow rate of the regulator should match the flow demand of the instrument pump or be slightly higher.
2) **Pressurized gas cylinder (Demand-flow regulator):** A demand-flow regulator better matches pump speed differences, but results in a slight vacuum during calibration and thus slightly high readings.
3) **Collapsible gas bag:** The instrument will draw the calibration gas from the bag at its normal flow rate, as long as the bag valve is large enough. The bag should be filled with enough gas to allow at least one minute of flow (~ 0.6 L for a MiniRAE, ~0.3 L for MultiRAE).
4) **T (or open tube) method:** The T method uses a T-junction with gas flow higher than the pump draw. The gas supply is connected to one end of the T, the instrument inlet is connected to a second end of the T, and excess gas flow escapes through the third, open end of the T. To prevent ambient air mixing, a long tube should be connected to the open end, or a high excess rate should be used. Alternatively, the instrument probe can be inserted into an open tube slightly wider than the probe. Excess gas flows out around the probe.

The first two cylinder methods are the most efficient in terms of gas usage, while the bag and T methods give slightly more accurate results because they match the pump flow better.

b) Pressure. Pressures deviating from atmospheric pressure affect the readings by altering gas concentration and pump characteristics. It is best to calibrate with the instrument and calibration gas at the same pressure as each other and the sample gas. (Note that the cylinder pressure is not relevant because the regulator reduces the pressure to ambient.) If the instrument is calibrated at atmospheric pressure in one of the flow configurations described above, then 1) pressures slightly above ambient are acceptable but high pressures can damage the pump and 2) samples under vacuum may give low readings if air leaks into the sample train.

c) Temperature. Because temperature effects gas density and concentration, the temperature of the calibration gas and instrument should be as close as possible to the ambient temperature where the unit will be used. We recommend that the temperature of the calibration gas be within the instrument's temperature specification (typically 14° to 113° F or -10° to 45° C). Also, during actual measurements, the instrument should be kept at the same or higher temperature than the sample temperature to avoid condensation in the unit.

d) Matrix. The matrix gas of the calibration compound and VOC sample is significant. Some common matrix components, such as methane and water vapor can affect the VOC signal. PIDs are

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most commonly used for monitoring VOCs in air, in which case the preferred calibration gas matrix is air. For a MiniRAE, methane, methanol, and water vapor reduce the response by about 20% when their concentration is 15,000 ppm and by about 40% at 30,000 ppm. Despite earlier reports of oxygen effects, RAE PID responses with 10.6 eV lamps are independent of oxygen concentration, and calibration gases in a pure nitrogen matrix can be used. H_2 and CO_2 up to 5 volume % also have no effect.

e) Concentration. Although RAE Systems PIDs have electronically linearized output, it is best to calibrate in a concentration range close to the actual measurement range. For example, 100 ppm standard gas for anticipated vapors of 0 to 250 ppm, and 500 ppm standard for expected concentrations of 250 to 1000 ppm. The correction factors in this table were typically measured at 50 to 100 ppm and apply from the ppb range up to about 1000 ppm. Above 1000 ppm the CF may vary and it is best to calibrate with the gas of interest near the concentration of interest.

f) Filters. Filters affect flow and pressure conditions and therefore all filters to be used during sampling should also be in place during calibration. Using a water trap (hydrophobic filter) greatly reduces the chances of drawing water aerosols or dirt particles into the instrument. Regular filter replacements are recommended because dirty filters can adsorb VOCs and cause slower response time and shifts in calibration.

g) Instrument Design. High-boiling ("heavy") or very reactive compounds can be lost by reaction or adsorption onto materials in the gas sample train, such as filters, pumps and other sensors. Multi-gas meters, including EntryRAE, MultiRAE and AreaRAE have the pump and other sensors upstream of the PID and are prone to these losses. Compounds possibly affected by such losses are shown in green in the table, and may give slow response, or in extreme cases, no response at all. In many cases the multi-gas meters can still give a rough indication of the relative concentration, without giving an accurate, quantitative reading. The ppbRAE and MiniRAE series instruments have inert sample trains and therefore do not exhibit significant loss; nevertheless, response may be slow for the very heavy compounds and additional sampling time up to a minute or more should be allowed to get a stable reading.

Table Abbreviations:

CF = Correction Factor (multiply by reading to get corrected value for the compound when calibrated to isobutylene)
NR = No Response
IE = Ionization Energy (values in parentheses are not well established)
C = Confirmed Value indicated by "+" in this column; all others are preliminary or estimated values and are subject to change
ne = Not Established ACGIH 8-hr. TWA
C## = Ceiling value, given where 8-hr.TWA is not available

Disclaimer:

Actual readings may vary with age and cleanliness of lamp, relative humidity, and other factors. For accurate work, the instrument should be calibrated regularly under the operating conditions used. The factors in this table were measured in dry air at room temperature, typically at 50-100 ppm. CF values may vary above about 1000 ppm.

Updates:

The values in this table are subject to change as more or better data become available. Watch for updates of this table on the Internet at **http://www.raesystems.com**

IE data are taken from the CRC Handbook of Chemistry and Physics, 73rd Edition, D.R. Lide (Ed.), CRC Press (1993) and NIST Standard Ref. Database 19A, NIST Positive Ion Energetics, Vers. 2.0, Lias, et.al., U.S. Dept. Commerce (1993). Exposure limits (8-h TWA and Ceiling Values) are from the 2005 ACGIH Guide to Occupational Exposure Values, ACGIH, Cincinnati, OH 2005. Equations for exposure limits for mixtures of chemicals were taken from the 1997 TLVs and BEIs handbook published by the ACGIH (1997).

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Compound Name	Synonym/Abbreviation	CAS No.	Formula	9.8	C	10.6	C	11.7	C	IE (eV)	TWA
Acetaldehyde		75-07-0	C_2H_4O	NR	+	6	+	3.3	+	10.23	C25
Acetic acid	Ethanoic Acid	64-19-7	$C_2H_4O_2$	NR	+	22	+	2.6	+	10.66	10
Acetic anhydride	Ethanoic Acid Anhydride	108-24-7	$C_4H_6O_3$	NR	+	6.1	+	2.0	+	10.14	5
Acetone	2-Propanone	67-64-1	C_3H_6O	1.2	+	1.1	+	1.4	+	9.71	500
Acetone cyanohydrin	2-Hydroxyisobutyronitrile	75-86-5	C_4H_7NO					4	+	11.1	C5
Acetonitrile	Methyl cyanide, Cyanomethane	75-05-8	C_2H_3N					100		12.19	40
Acetylene	Ethyne	74-86-2	C_2H_2					2.1	+	11.40	ne
Acrolein	Propenal	107-02-8	C_3H_4O	42	+	3.9	+	1.4	+	10.10	0.1
Acrylic acid	Propenoic Acid	79-10-7	$C_3H_4O_2$			12	+	2.0	+	10.60	2
Acrylonitrile	Propenenitrile	107-13-1	C_3H_3N			NR	+	1.2	+	10.91	2
Allyl alcohol		107-18-6	C_3H_6O	4.5	+	2.4	+	1.6	+	9.67	2
Allyl chloride	3-Chloropropene	107-05-1	C_3H_5Cl			4.3		0.7		9.9	1
Ammonia		7664-41-7	H_3N	NR	+	9.7	+	5.7	+	10.16	25
Amyl acetate	mix of n-Pentyl acetate & 2-Methylbutyl acetate	628-63-7	$C_7H_{14}O_2$	11	+	2.3	+	0.95	+	<9.9	100
Amyl alcohol	1-Pentanol	75-85-4	$C_5H_{12}O$			5		1.6		10.00	ne
Aniline	Aminobenzene	62-53-3	C_7H_7N	0.50	+	0.48	+	0.47	+	7.72	2
Anisole	Methoxybenzene	100-66-3	C_7H_8O	0.89	+	0.58	+	0.56	+	8.21	ne
Arsine	Arsenic trihydride	7784-42-1	AsH_3			1.9	+			9.89	0.05
Benzaldehyde		100-52-7	C_7H_6O					1		9.49	ne
Benzenamine, N-methyl-	N-Methylphenylamine	100-61-8	C_7H_9N			0.7				7.53	
Benzene		71-43-2	C_6H_6	0.55	+	0.53	+	0.6	+	9.25	0.5
Benzonitrile	Cyanobenzene	100-47-0	C_7H_5N			1.6				9.62	ne
Benzyl alcohol	α-Hydroxytoluene, Hydroxymethylbenzene, Benzenemethanol	100-51-6	C_7H_8O	1.4	+	1.1	+	0.9	+	8.26	ne
Benzyl chloride	α-Chlorotoluene, Chloromethylbenzene	100-44-7	C_7H_7Cl	0.7	+	0.6	+	0.5	+	9.14	1
Benzyl formate	Formic acid benzyl ester	104-57-4	$C_8H_8O_2$	0.9	+	0.73	+	0.66	+		ne
Boron trifluoride		7637-07-2	BF_3	NR		NR		NR		15.5	C1
Bromine		7726-95-6	Br_2	NR	+	1.30	+	0.74	+	10.51	0.1
Bromobenzene		108-86-1	C_6H_5Br			0.6		0.5		8.98	ne
2-Bromoethyl methyl ether		6482-24-2	C_3H_7OBr			0.84	+			~10	ne
Bromoform	Tribromomethane	75-25-2	$CHBr_3$	NR	+	2.5	+	0.5	+	10.48	0.5
Bromopropane,1-	n-Propyl bromide	106-94-5	C_3H_7Br	150	+	1.5	+	0.6	+	10.18	ne
Butadiene	1,3-Butadiene, Vinyl ethylene	106-99-0	C_4H_6	0.8		0.85	+	1.1		9.07	2
Butadiene diepoxide, 1,3-	1,2,3,4-Diepoxybutane	298-18-0	$C_4H_6O_2$	25	+	3.5	+	1.2		~10	ne
Butanal	1-Butanal	123-72-8	C_4H_8O			1.8				9.84	
Butane		106-97-8	C_4H_{10}			67	+	1.2		10.53	800
Butanol, 1-	Butyl alcohol, n-Butanol	71-36-3	$C_4H_{10}O$	70	+	4.7	+	1.4	+	9.99	20
Butanol, t-	tert-Butanol, t-Butyl alcohol	75-65-0	$C_4H_{10}O$	6.9	+	2.9	+			9.90	100
Butene, 1-	1-Butylene	106-98-9	C_4H_8			0.9				9.58	ne
Butoxyethanol, 2-	Butyl Cellosolve, Ethylene glycol monobutyl ether	111-76-2	$C_6H_{14}O_2$	1.8	+	1.2	+	0.6	+	<10	25
Butoxyethanol acetate	Ethanol, 2-(2-butoxyethoxy)-, acetate	124-17-4	$C_{10}H_{20}O_4$			5.6				≤10.6	
Butoxyethoxyethanol	2-(2-Butoxyethoxy)ethanol	112-34-5	$C_8H_{18}O_3$			4.6				≤10.6	
Butyl acetate, n-		123-86-4	$C_6H_{12}O_2$			2.6	+			10	150
Butyl acrylate, n-	Butyl 2-propenoate, Acrylic acid butyl ester	141-32-2	$C_7H_{12}O_2$			1.6	+	0.6	+		10
Butylamine, n-		109-73-9	$C_4H_{11}N$	1.1	+	1.1	+	0.7	+	8.71	C5
Butyl cellosolve	see 2-Butoxyethanol	111-76-2									
Butyl hydroperoxide, t-		75-91-2	$C_4H_{10}O_2$	2.0	+	1.6	+			<10	1
Butyl mercaptan	1-Butanethiol	109-79-5	$C_4H_{10}S$	0.55	+	0.52	+			9.14	0.5
Carbon disulfide		75-15-0	CS_2	4	+	1.2	+	0.44		10.07	10
Carbon tetrachloride	Tetrachloromethane	56-23-5	CCl_4	NR	+	NR	+	1.7	+	11.47	5
Carbonyl sulfide	Carbon oxysulfide	463-58-1	COS							11.18	

Cellosolve see 2-Ethoxyethanol
CFC-14 see Tetrafluoromethane
CFC-113 see 1,1,2-Trichloro-1,2,2-trifluoroethane

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Compound Name	Synonym/Abbreviation	CAS No.	Formula	9.8	C	10.6	C	11.7	C	IE (eV)	TWA
Chlorine		7782-50-5	Cl_2					1.0	+	11.48	0.5
Chlorine dioxide		10049-04-4	ClO_2	NR	+	NR	+	NR	+	10.57	0.1
Chlorobenzene	Monochlorobenzene	108-90-7	C_6H_5Cl	0.44	+	0.40	+	0.39	+	9.06	10
Chlorobenzotrifluoride, 4-	PCBTF, OXSOL 100 p-Chlorobenzotrifluoride	98-56-6	$C_7H_4ClF_3$	0.74	+	0.63	+	0.55	+	<9.6	25
Chloro-1,3-butadiene, 2-	Chloroprene	126-99-8	C_4H_5Cl			3					10
Chloro-1,1-difluoroethane, 1-	HCFC-142B, R-142B	75-68-3	$C_2H_3ClF_2$	NR		NR		NR		12.0	ne
Chlorodifluoromethane	HCFC-22, R-22	75-45-6	$CHClF_2$	NR		NR		NR		12.2	1000
Chloroethane	Ethyl chloride	75-00-3	C_2H_5Cl	NR	+	NR	+	1.1	+	10.97	100
Chloroethanol	Ethylene chlrohydrin	107-07-3	C_2H_5ClO					2.9		10.52	C1
Chloroethyl ether, 2-	bis(2-chloroethyl) ether	111-44-4	$C_4H_8Cl_2O$	8.6	+	3.0	+				5
Chloroethyl methyl ether, 2-	Methyl 2-chloroethyl ether	627-42-9	C_3H_7ClO			3					ne
Chloroform	Trichloromethane	67-66-3	$CHCl_3$	NR	+	NR	+	3.5	+	11.37	10
Chloro-2-methylpropene, 3-	Methallyl chloride, Isobutenyl chloride	563-47-3	C_4H_7Cl	1.4	+	1.2	+	0.63	+	9.76	ne
Chloropicrin		76-06-2	CCl_3NO_2	NR	+	~400	+	7	+	?	0.1
Chlorotoluene, o-	o-Chloromethylbenzene	95-49-8	C_7H_7Cl			0.5		0.6		8.83	50
Chlorotoluene, p-	p-Chloromethylbenzene	106-43-4	C_7H_7Cl					0.6		8.69	ne
Chlorotrifluoroethene	CTFE, Chlorotrifluoroethylene Genetron 1113	79-38-9	C_2ClF_3	6.7	+	3.9	+	1.2	+	9.76	5
Chlorotrimethylsilane		75-77-4	C_3H_9ClSi	NR		NR		0.82	+	10.83	ne
Cresol, m-	m-Hydroxytoluene	108-39-4	C_7H_8O	0.57	+	0.50	+	0.57	+	8.29	5
Cresol, o-	o-Hydroxytoluene	95-48-7	C_7H_8O			1.0				8.50	
Cresol, p-	p-Hydroxytoluene	106-44-5	C_7H_8O			1.4				8.35	
Crotonaldehyde	*trans*-2-Butenal	123-73-9 4170-30-3	C_4H_6O	1.5	+	1.1	+	1.0	+	9.73	2
Cumene	Isopropylbenzene	98-82-8	C_9H_{12}	0.58	+	0.54	+	0.4	+	8.73	50
Cyanogen bromide		506-68-3	CNBr	NR		NR		NR		11.84	ne
Cyanogen chloride		506-77-4	CNCl	NR		NR		NR		12.34	C0.3
Cyclohexane		110-82-7	C_6H_{12}	3.3	+	1.4	+	0.64	+	9.86	300
Cyclohexanol	Cyclohexyl alcohol	108-93-0	$C_6H_{12}O$	1.5	+	0.9	+	1.1	+	9.75	50
Cyclohexanone		108-94-1	$C_6H_{10}O$	1.0	+	0.9	+	0.7	+	9.14	25
Cyclohexene		110-83-8	C_6H_{10}			0.8	+			8.95	300
Cyclohexylamine		108-91-8	$C_6H_{13}N$			1.2				8.62	10
Cyclopentane 85% 2,2-dimethylbutane 15%		287-92-3	C_5H_{10}	NR	+	15	+	1.1		10.33	600
Cyclopropylamine	Aminocyclpropane	765-30-0	C_3H_7N	1.1	+	0.9	+	0.9	+		ne
Decamethylcyclopentasiloxane		541-02-6	$C_{10}H_{30}O_5Si_5$	0.16	+	0.13	+	0.12	+		ne
Decamethyltetrasiloxane		141-62-8	$C_{10}H_{30}O_3Si_4$	0.17	+	0.13	+	0.12	+	<10.2	ne
Decane		124-18-5	$C_{10}H_{22}$	4.0	+	1.4	+	0.35	+	9.65	ne
Diacetone alcohol	4-Methyl-4-hydroxy-2-pentanone	123-42-2	$C_6H_{12}O_2$			0.7					50
Dibromochloromethane	Chlorodibromomethane	124-48-1	$CHBr_2Cl$	NR	+	5.3	+	0.7	+	10.59	ne
Dibromo-3-chloropropane, 1,2-	DBCP	96-12-8	$C_3H_5Br_2Cl$	NR	+	1.7	+	0.43	+		0.001
Dibromoethane, 1,2-	EDB, Ethylene dibromide, Ethylene bromide	106-93-4	$C_2H_4Br_2$	NR	+	1.7	+	0.6	+	10.37	ne
Dichlorobenzene, o-	1,2-Dichlorobenzene	95-50-1	$C_6H_4Cl_2$	0.54	+	0.47	+	0.38	+	9.08	25
Dichlorodifluoromethane	CFC-12	75-71-8	CCl_2F_2			NR	+	NR	+	11.75	1000
Dichlorodimethylsilane		75-78-5	$C_2H_6Cl_2Si$	NR		NR		1.1	+	>10.7	ne
Dichloroethane, 1,2-	EDC, 1,2-DCA, Ethylene dichloride	107-06-2	$C_2H_4Cl_2$			NR	+	0.6	+	11.04	10
Dichloroethene, 1,1-	1,1-DCE, Vinylidene chloride	75-35-4	$C_2H_2Cl_2$			0.82	+	0.8	+	9.79	5
Dichloroethene, c-1,2-	*c*-1,2-DCE, *cis*-Dichloroethylene	156-59-2	$C_2H_2Cl_2$			0.8				9.66	200
Dichloroethene, t-1,2-	*t*-1,2-DCE, *trans*-Dichloroethylene	156-60-5	$C_2H_2Cl_2$			0.45	+	0.34	+	9.65	200
Dichloro-1-fluoroethane, 1,1-	R-141B	1717-00-6	$C_2H_3Cl_2F$	NR	+	NR	+	2.0	+		ne
Dichloromethane	see Methylene chloride										

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Dichloropentafluoropropane	AK-225, mix of ~45% 3,3-dichloro-1,1,1,2,2-pentafluoro-propane (HCFC-225ca) & ~55% 1,3-Dichloro-1,1,2,2,3-pentafluoropropane (HCFC-225cb)	442-56-0 507-55-1	$C_3HCl_2F_5$	NR	+	NR	+	25	+		ne
Dichloropropane, 1,2-		78-87-5	$C_3H_6Cl_2$					0.7		10.87	75
Dichloro-1-propene, 1,3-		542-75-6	$C_3H_4C_{12}$	1.3	+	0.96	+			<10	1
Dichloro-1-propene, 2,3-		78-88-6	$C_3H_4Cl_2$	1.9	+	1.3	+	0.7	+	<10	ne
Dichloro-1,1,1-trifluoroethane, 2,2-	R-123	306-83-2	$C_2HCl_2F_3$	NR	+	NR	+	10.1	+	11.5	ne
Dichloro-2,4,6-trifluoropyridine, 3,5-	DCTFP	1737-93-5	$C_5Cl_2F_3N$	1.1	+	0.9	+	0.8	+		ne
Dichlorvos *	Vapona; O,O-dimethyl O-dichlorovinyl phosphate	62-73-7	$C_4H_7Cl_2O_4P$			0.9	+			<9.4	0.1
Dicyclopentadiene	DCPD, Cyclopentadiene dimer	77-73-6	$C_{10}H_{12}$	0.57	+	0.48	+	0.43	+	8.8	5
Diesel Fuel		68334-30-5	m.w. 226			0.9	+				11
Diesel Fuel #2 (Automotive)		68334-30-5	m.w. 216	1.3		0.7	+	0.4	+		11
Diethylamine		109-89-7	$C_4H_{11}N$			1	+			8.01	5
Diethylaminopropylamine, 3-		104-78-9	$C_7H_{18}N_2$			1.3					ne
Diethylbenzene	See Dowtherm J										
Diethylmaleate		141-05-9	$C_8H_{12}O_4$			4					ne
Diethyl sulfide	see Ethyl sulfide										
Diglyme	See Methoxyethyl ether	111-96-6	$C_6H_{14}O_3$								
Diisobutyl ketone	DIBK, 2,2-dimethyl-4-heptanone	108-83-8	$C_9H_{18}O$	0.71	+	0.61	+	0.35	+	9.04	25
Diisopropylamine		108-18-9	$C_6H_{15}N$	0.84	+	0.74	+	0.5	+	7.73	5
Diketene	Ketene dimer	674-82-8	$C_4H_4O_2$	2.6	+	2.0	+	1.4	+	9.6	0.5
Dimethylacetamide, N,N-	DMA	127-19-5	C_4H_9NO	0.87	+	0.8	+	0.8	+	8.81	10
Dimethylamine		124-40-3	C_2H_7N			1.5				8.23	5
Dimethyl carbonate	Carbonic acid dimethyl ester	616-38-6	$C_3H_6O_3$	NR	+	~70	+	1.7	+	~10.5	ne
Dimethyl disulfide	DMDS	624-92-0	$C_2H_6S_2$	0.2	+	0.20	+	0.21	+	7.4	ne
Dimethyl ether	see Methyl ether										
Dimethylethylamine	DMEA	598-56-1	$C_4H_{11}N$	1.1	+	1.0	+	0.9	+	7.74	~3
Dimethylformamide, N,N-	DMF	68-12-2	C_3H_7NO	0.7	+	0.7	+	0.8	+	9.13	10
Dimethylhydrazine, 1,1-	UDMH	57-14-7	$C_2H_8N_2$			0.8	+	0.8	+	7.28	0.01
Dimethyl methylphosphonate	DMMP, methyl phosphonic acid dimethyl ester	756-79-6	$C_3H_9O_3P$	NR	+	4.3	+	0.74	+	10.0	ne
Dimethyl sulfate		77-78-1	$C_2H_6O_4S$	~23		~20	+	2.3	+		0.1
Dimethyl sulfide	see Methyl sulfide										
Dimethyl sulfoxide	DMSO, Methyl sulfoxide	67-68-5	C_2H_6OS			1.4	+			9.10	ne
Dioxane, 1,4-		123-91-1	$C_4H_8O_2$			1.3				9.19	25
Dioxolane, 1,3-	Ethylene glycol formal	646-06-0	$C_3H_6O_2$	4.0	+	2.3	+	1.6	+	9.9	20
Dowtherm A see Therminol® *											
Dowtherm J (97% Diethylbenzene) *		25340-17-4	$C_{10}H_{14}$			0.5					
DS-108F Wipe Solvent	Ethyl lactate/Isopar H/ Propoxypropanol ~7:2:1	97-64-3 64742-48-9 1569-01-3	m.w. 118	3.3	+	1.6	+	0.7	+		ne
Epichlorohydrin	ECH Chloromethyloxirane, 1-chloro2,3-epoxypropane	106-89-8	C_2H_5ClO	~200	+	8.5	+	1.4	+	10.2	0.5
Ethane		74-84-0	C_2H_6			NR	+	15	+	11.52	ne
Ethanol	Ethyl alcohol	64-17-5	C_2H_6O			10	+	3.1	+	10.47	1000
Ethanolamine *	MEA, Monoethanolamine	141-43-5	C_2H_7NO	5.6	+	1.6	+			8.96	3
Ethene	Ethylene	74-85-1	C_2H_4			9	+	4.5	+	10.51	ne
Ethoxyethanol, 2-	Ethyl cellosolve	110-80-5	$C_4H_{10}O_2$			1.3				9.6	5
Ethyl acetate		141-78-6	$C_4H_8O_2$			4.6	+	3.5		10.01	400
Ethyl acetoacetate		141-97-9	$C_6H_{10}O_3$	1.4	+	1.2	+	1.0	+	<10	ne
Ethyl acrylate		140-88-5	$C_5H_8O_2$			2.4	+	1.0	+	<10.3	5
Ethylamine		75-04-7	C_2H_7N			0.8				8.86	5

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Ethylbenzene		100-41-4	C_8H_{10}	0.52	+	0.52	+	0.51	+	8.77	100
Ethyl caprylate	Ethyl octanoate	106-32-1	$C_{10}H_{20}O_2$		+	0.52	+	0.51	+		
Ethylenediamine	1,2-Ethanediamine; 1,2-Diaminoethane	107-15-3	$C_2H_8N_2$	0.9	+	0.8	+	1.0	+	8.6	10
Ethylene glycol *	1,2-Ethanediol	107-21-1	$C_2H_6O_2$			16	+	6	+	10.16	C100
Ethylene glycol, Acrylate	2-hydroxyethyl Acrylate	818-61-1	$C_5H_8O_3$			8.2				≤10.6	
Ethylene glycol dimethyl ether	1,2-Dimethoxyethane, Monoglyme	110-71-4	$C_4H_{10}O_2$	1.1		0.86		0.7		9.2	ne
Ethylene glycol monobutyl ether acetate	2-Butoxyethyl acetate	112-07-2	$C_8H_{16}O_3$			1.3				≤10.6	
Ethylene glycol, monothio	mercapto-2-ethanol	60-24-2	C_2H_6OS			1.5				9.65	
Ethylene oxide	Oxirane, Epoxyethane	75-21-8	C_2H_4O			13	+	3.5	+	10.57	1
Ethyl ether	Diethyl ether	60-29-7	$C_4H_{10}O$			1.1	+	1.7		9.51	400
Ethyl 3-ethoxypropionate	EEP	763-69-9	$C_7H_{14}O_3$	1.2	+	0.75	+				ne
Ethyl formate		109-94-4	$C_3H_6O_2$					1.9		10.61	100
Ethylhexyl acrylate, 2-	Acrylic acid 2-ethylhexyl ester	103-11-7	$C_{11}H_{20}O_2$			1.1	+	0.5	+		ne
Ethylhexanol	2-Ethyl-1-hexanol	104-76-7	C8H18O			1.9				≤10.6	
Ethylidenenorbornene	5-Ethylidene bicyclo(2,2,1)hept-2-ene	16219-75-3	C_9H_{12}	0.4	+	0.39	+	0.34	+	≤8.8	ne
Ethyl (S)-(-)-lactate see also DS-108F	Ethyl lactate, Ethyl (S)-(-)-hydroxypropionate	687-47-8 97-64-3	$C_5H_{10}O_3$	13	+	3.2	+	1.6	+	~10	ne
Ethyl mercaptan	Ethanethiol	75-08-1	C_2H_6S	0.60	+	0.56	+			9.29	0.5
Ethyl sulfide	Diethyl sulfide	352-93-2	$C_4H_{10}S$			0.5	+			8.43	ne
Formaldehyde	Formalin	50-00-0	CH_2O	NR	+	NR	+	1.6	+	10.87	C0.3
Formamide		75-12-7	CH_3NO			6.9	+	4		10.16	10
Formic acid		64-18-6	CH_2O_2	NR	+	NR	+	9	+	11.33	5
Furfural	2-Furaldehyde	98-01-1	$C_5H_4O_2$			0.92	+	0.8	+	9.21	2
Furfuryl alcohol		98-00-0	$C_5H_6O_2$			0.80	+			<9.5	10
Gasoline #1		8006-61-9	m.w. 72			0.9	+				300
Gasoline #2, 92 octane		8006-61-9	m.w. 93	1.3	+	1.0	+	0.5	+		300
Glutaraldehyde	1,5-Pentanedial, Glutaric dialdehyde	111-30-8	$C_5H_8O_2$	1.1	+	0.8	+	0.6	+		C0.05
Glycidyl methacrylate	2,3-Epoxypropyl methacrylate	106-91-2	$C_7H_{10}O_3$	2.6	+	1.2	+	0.9	+		0.5
Halothane	2-Bromo-2-chloro-1,1,1-trifluoroethane	151-67-7	$C_2HBrClF_3$					0.6		11.0	50
HCFC-22 see Chlorodifluoromethane											
HCFC-123 see 2,2-Dichloro-1,1,1-trifluoroethane											
HCFC-141B see 1,1-Dichloro-1-fluoroethane											
HCFC-142B see 1-Chloro-1,1-difluoroethane											
HCFC-134A see 1,1,1,2-Tetrafluoroethane											
HCFC-225 see Dichloropentafluoropropane											
Heptane, n-		142-82-5	C_7H_{16}	45	+	2.8	+	0.60	+	9.92	400
Heptanol, 4-	Dipropylcarbinol	589-55-9	$C_7H_{16}O$	1.8	+	1.3	+	0.5	+	9.61	ne
Hexamethyldisilazane, 1,1,1,3,3,3- *	HMDS	999-97-3	$C_6H_{19}NSi_2$			0.2	+	0.2	+	~8.6	ne
Hexamethyldisiloxane	HMDSx	107-46-0	$C_6H_{18}OSi_2$	0.33	+	0.27	+	0.25	+	9.64	ne
Hexane, n-		110-54-3	C_6H_{14}	350	+	4.3	+	0.54	+	10.13	50
Hexanol, 1-	Hexyl alcohol	111-27-3	$C_6H_{14}O$	9	+	2.5	+	0.55	+	9.89	ne
Hexene, 1-		592-41-6	C_6H_{12}			0.8				9.44	30
HFE-7100 see Methyl nonafluorobutyl ether											
Histoclear (Histo-Clear)	Limonene/corn oil reagent		m.w. ~136	0.5	+	0.4	+	0.3	+		ne
Hydrazine *		302-01-2	H_4N_2	>8	+	2.6	+	2.1	+	8.1	0.01
Hydrazoic acid	Hydrogen azide		HN_3							10.7	
Hydrogen	Synthesis gas	1333-74-0	H_2	NR	+	NR	+	NR	+	15.43	ne
Hydrogen cyanide	Hydrocyanic acid	74-90-8	HCN	NR	+	NR	+	NR	+	13.6	C4.7
Hydrogen iodide *	Hydriodic acid	10034-85-2	HI			~0.6*				10.39	
Hydrogen peroxide		7722-84-1	H_2O_2	NR	+	NR	+	NR	+	10.54	1
Hydrogen sulfide		7783-06-4	H_2S	NR	+	3.3	+	1.5	+	10.45	10
Hydroxypropyl methacrylate		27813-02-1 923-26-2	$C_7H_{12}O_3$	9.9	+	2.3	+	1.1	+		ne
Iodine *		7553-56-2	I_2	0.1	+	0.1	+	0.1	+	9.40	C0.1

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Iodomethane	Methyl iodide	74-88-4	CH_3I	0.21	+	0.22	+	0.26	+	9.54	2
Isoamyl acetate	Isopentyl acetate	123-92-2	$C_7H_{14}O_2$	10.1		2.1		1.0		<10	100
Isobutane	2-Methylpropane	75-28-5	C_4H_{10}			100	+	1.2	+	10.57	ne
Isobutanol	2-Methyl-1-propanol	78-83-1	$C_4H_{10}O$	19	+	3.8	+	1.5		10.02	50
Isobutene	Isobutylene, Methyl butene	115-11-7	C_4H_8	1.00	+	1.00	+	1.00	+	9.24	Ne
Isobutyl acrylate	Isobutyl 2-propenoate	106-63-8	$C_7H_{12}O_2$			1.5	+	0.60	+		Ne
Isoflurane	1-Chloro-2,2,2-trifluoroethyl difluoromethyl ether, forane	26675-46-7	$C_3H_2ClF_5O$	NR	+	NR	+	48	+	~11.7	Ne
Isooctane	2,2,4-Trimethylpentane	540-84-1	C8H18			1.2				9.86	ne
Isopar E Solvent	Isoparaffinic hydrocarbons	64741-66-8	m.w. 121	1.7	+	0.8	+				Ne
Isopar G Solvent	Photocopier diluent	64742-48-9	m.w. 148			0.8	+				Ne
Isopar K Solvent	Isoparaffinic hydrocarbons	64742-48-9	m.w. 156	0.9	+	0.5	+	0.27	+		Ne
Isopar L Solvent	Isoparaffinic hydrocarbons	64742-48-9	m.w. 163	0.9	+	0.5	+	0.28	+		Ne
Isopar M Solvent	Isoparaffinic hydrocarbons	64742-47-8	m.w. 191			0.7	+	0.4	+		Ne
Isopentane	2-Methylbutane	78-78-4	C_5H_{12}			8.2					Ne
Isophorone		78-59-1	$C_9H_{14}O$					3		9.07	C5
Isoprene	2-Methyl-1,3-butadiene	78-79-5	C_5H_8	0.69	+	0.63	+	0.60	+	8.85	Ne
Isopropanol	Isopropyl alcohol, 2-propanol, IPA	67-63-0	C_3H_8O	500	+	6.0	+	2.7		10.12	200
Isopropyl acetate		108-21-4	$C_5H_{10}O_2$			2.6				9.99	100
Isopropyl ether	Diisopropyl ether	108-20-3	$C_6H_{14}O$			0.8				9.20	250
Jet fuel JP-4	Jet B, Turbo B, F-40 Wide cut type aviation fuel	8008-20-6 + 64741-42-0	m.w. 115			1.0	+	0.4	+		Ne
Jet fuel JP-5	Jet 5, F-44, Kerosene type aviation fuel	8008-20-6 + 64747-77-1	m.w. 167			0.6	+	0.5	+		29
Jet fuel JP-8	Jet A-1, F-34, Kerosene type aviation fuel	8008-20-6 + 64741-77-1	m.w. 165			0.6	+	0.3	+		30
Jet fuel A-1 (JP-8)	F-34, Kerosene type aviation fuel	8008-20-6 + 64741-77-1	m.w. 145			0.67					34
Jet Fuel TS	Thermally Stable Jet Fuel, Hydrotreated kerosene fuel	8008-20-6 + 64742-47-8	m.w. 165	0.9	+	0.6	+	0.3	+		30
Limonene, D-	(R)-(+)-Limonene	5989-27-5	$C_{10}H_{16}$			0.33	+			~8.2	Ne
Kerosene C10-C16 petro.distillate – see Jet Fuels		8008-20-6									
MDI – see 4,4'-Methylenebis(phenylisocyanate)											
Maleic anhydride	2,5-Furandione	108-31-6	$C_4H_2O_3$							~10.8	0.1
Mesitylene	1,3,5-Trimethylbenzene	108-67-8	C_9H_{12}	0.36	+	0.35	+	0.3	+	8.41	25
Methallyl chloride – see 3-Chloro-2-methylpropene											
Methane	Natural gas	74-82-8	CH_4	NR	+	NR	+	NR	+	12.61	Ne
Methanol	Methyl alcohol, carbinol	67-56-1	CH_4O	NR	+	NR	+	2.5	+	10.85	200
Methoxyethanol, 2-	Methyl cellosolve, Ethylene glycol monomethyl ether	109-86-4	$C_3H_8O_2$	4.8	+	2.4	+	1.4	+	10.1	5
Methoxyethoxyethanol, 2-	2-(2-Methoxyethoxy)ethanol Diethylene glycol monomethyl ether	111-77-3	$C_7H_{16}O$	2.3	+	1.2	+	0.9	+	<10	Ne
Methoxyethyl ether, 2-	bis(2-Methoxyethyl) ether, Diethylene glycol dimethyl ether, Diglyme	111-96-6	$C_6H_{14}O_3$	0.64	+	0.54	+	0.44	+	<9.8	Ne
Methyl acetate		79-20-9	$C_3H_6O_2$	NR	+	6.6	+	1.4	+	10.27	200
Methyl acrylate	Methyl 2-propenoate, Acrylic acid methyl ester	96-33-3	$C_4H_6O_2$			3.7	+	1.2	+	(9.9)	2
Methylamine	Aminomethane	74-89-5	CH_5N			1.2				8.97	5
Methyl amyl ketone	MAK, 2-Heptanone, Methyl pentyl ketone	110-43-0	$C_7H_{14}O$	0.9	+	0.85	+	0.5	+	9.30	50
Methyl bromide	Bromomethane	74-83-9	CH_3Br	110	+	1.7	+	1.3	+	10.54	1
Methyl t-butyl ether	MTBE, *tert*-Butyl methyl ether	1634-04-4	$C_5H_{12}O$			0.9	+			9.24	40
Methyl cellosolve	see 2-Methoxyethanol										
Methyl chloride	Chloromethane	74-87-3	CH_3Cl	NR	+	NR	+	0.74	+	11.22	50
Methylcyclohexane		107-87-2	C_7H_{14}	1.6	+	0.97	+	0.53	+	9.64	400
Methylene bis(phenyl-isocyanate), 4,4'- *	MDI, Mondur M		$C_{15}H_{10}N_2O_2$	Very slow ppb level response							0.005

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Methylene chloride	Dichloromethane	75-09-2	CH_2Cl_2	NR	+	NR	+	0.89	+	11.32	25
Methyl ether	Dimethyl ether	115-10-6	C_2H_6O	4.8	+	3.1	+	2.5	+	10.03	Ne
Methyl ethyl ketone	MEK, 2-Butanone	78-93-3	C_4H_8O	0.86	+	0.9	+	1.1	+	9.51	200
Methylhydrazine	Monomethylhydrazine, Hydrazomethane	60-34-4	$C_2H_6N_2$	1.4	+	1.2	+	1.3	+	7.7	0.01
Methyl isoamyl ketone	MIAK, 5-Methyl-2-hexanone	110-12-3	$C_7H_{14}O$	0.8	+	0.76	+	0.5	+	9.28	50
Methyl isobutyl ketone	MIBK, 4-Methyl-2-pentanone	108-10-1	$C_6H_{12}O$	0.9	+	0.8	+	0.6	+	9.30	50
Methyl isocyanate	CH3NCO	624-83-9	C_2H_3NO	NR	+	4.6	+	1.5		10.67	0.02
Methyl isothiocyanate	CH3NCS	551-61-6	C_2H_3NS	0.5	+	0.45	+	0.4	+	9.25	ne
Methyl mercaptan	Methanethiol	74-93-1	CH_4S	0.65		0.54		0.66		9.44	0.5
Methyl methacrylate		80-62-6	$C_5H_8O_2$	2.7	+	1.5	+	1.2	+	9.7	100
Methyl nonafluorobutyl ether	HFE-7100DL	163702-08-7, 163702-07-6	$C_5H_3F_9O$			NR	+	~35	+		ne
Methyl-1,5-pentanediamine, 2- (coats lamp) *	Dytek-A amine, 2-Methyl pentamethylenediamine	15520-10-2	C6H16N2			~0.6	+			<9.0	ne
Methyl propyl ketone	MPK, 2-Pentanone	107-87-9	$C_5H_{12}O$			0.93	+	0.79	+	9.38	200
Methyl-2-pyrrolidinone, N-	NMP, N-Methylpyrrolidone, 1-Methyl-2-pyrrolidinone, 1-Methyl-2-pyrrolidone	872-50-4	C_5H_9NO	1.0	+	0.8	+	0.9	+	*9.17*	ne
Methyl salicylate	Methyl 2-hydroxybenzoate	119-36-8	C_8H_8O3	1.3	+	0.9	+	0.9	+	~9	ne
Methylstyrene, α-	2-Propenylbenzene	98-83-9	C_9H_{10}			0.5				8.18	50
Methyl sulfide	DMS, Dimethyl sulfide	75-18-3	C_2H_6S	0.49	+	0.44	+	0.46	+	8.69	ne
Mineral spirits	Stoddard Solvent, Varsol 1, White Spirits	8020-83-5 8052-41-3 68551-17-7	m.w. 144	1.0		0.69	+	0.38	+		100
Mineral Spirits - Viscor 120B Calibration Fluid, b.p. 156-207°C		8052-41-3	m.w. 142	1.0	+	0.7	+	0.3	+		100
Monoethanolamine - see Ethanolamine											
Mustard *	HD, Bis(2-chloroethyl) sulfide	505-60-2 39472-40-7 68157-62-0	$C_4H_8Cl_2S$			0.6					0.0005
Naphtha - see VM & P Naptha											
Naphthalene	Mothballs	91-20-3	$C_{10}H_8$	0.45	+	0.42	+	0.40	+	8.13	10
Nickel carbonyl (in CO)	Nickel tetracarbonyl	13463-39-3	C_4NiO_4			0.18				<8.8	0.001
Nicotine		54-11-5	$C_{10}H_{14}N_2$			2.0				≤10.6	
Nitric oxide		10102-43-9	NO	~6		5.2	+	2.8	+	9.26	25
Nitrobenzene		98-95-3	$C_6H_5NO_2$	2.6	+	1.9	+	1.6	+	9.81	1
Nitroethane		79-24-3	$C_2H_5NO_2$					3		10.88	100
Nitrogen dioxide		10102-44-0	NO_2	23	+	16	+	6	+	9.75	3
Nitrogen trifluoride		7783-54-2	NF_3	NR		NR		NR		13.0	10
Nitromethane		75-52-5	CH_3NO_2					4		11.02	20
Nitropropane, 2-		79-46-9	$C_3H_7NO_2$					2.6		10.71	10
Nonane		111-84-2	C_9H_{20}			1.4				9.72	200
Norpar 12	n-Paraffins, mostly C_{10}-C_{13}	64771-72-8	m.w. 161	3.2	+	1.1	+	0.28	+		ne
Norpar 13	n-Paraffins, mostly C_{13}-C_{14}	64771-72-8	m.w. 189	2.7	+	1.0	+	0.3	+		ne
Octamethylcyclotetrasiloxane		556-67-2	$C_8H_{24}O_4Si_4$	0.21	+	0.17	+	0.14	+		ne
Octamethyltrisiloxane		107-51-7	$C_8H_{24}O_2Si_3$	0.23	+	0.18	+	0.17	+	<10.0	ne
Octane, n-		111-65-9	C_8H_{18}	13	+	1.8	+			9.82	300
Octene, 1-		111-66-0	C_8H_{16}	0.9	+	0.75	+	0.4	+	9.43	75
Pentane		109-66-0	C_5H_{12}	80	+	8.4	+	0.7	+	10.35	600
Peracetic acid *	Peroxyacetic acid, Acetyl hydroperoxide	79-21-0	$C_2H_4O_3$	NR	+	NR	+	2.3	+		ne
Peracetic/Acetic acid mix *	Peroxyacetic acid, Acetyl hydroperoxide	79-21-0	$C_2H_4O_3$			50	+	2.5	+		ne
Perchloroethene	PCE, Perchloroethylene, Tetrachloroethylene	127-18-4	C_2Cl_4	0.69	+	0.57	+	0.31	+	9.32	25
PGME	Propylene glycol methyl ether, 1-Methoxy-2-propanol	107-98-2	$C_6H_{12}O_3$	2.4	+	1.5	+	1.1	+		100

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PGMEA	Propylene glycol methyl ether acetate, 1-Methoxy-2-acetoxypropane, 1-Methoxy-2-propanol acetate	108-65-6	$C_6H_{12}O_3$	1.65	+	1.0	+	0.8	+		ne
Phenol	Hydroxybenzene	108-95-2	C_6H_6O	1.0	+	1.0	+	0.9	+	8.51	5
Phosgene	Dichlorocarbonyl	75-44-5	CCl_2O	NR	+	NR	+	8.5	+	11.2	0.1
Phosgene in Nitrogen	Dichlorocarbonyl	75-44-5	CCl_2O	NR	+	NR	+	6.8	+	11.2	0.1
Phosphine (coats lamp)		7803-51-2	PH_3	28		3.9	+	1.1	+	9.87	0.3
Photocopier Toner	Isoparaffin mix					0.5	+	0.3	+		ne
Picoline, 3-	3-Methylpyridine	108-99-6	C_6H_7N			0.9				9.04	ne
Pinene, α-		2437-95-8	$C_{10}H_{16}$			0.31	+	0.47		8.07	ne
Pinene, β-		18172-67-3	$C_{10}H_{16}$	0.38	+	0.37	+	0.37	+	~8	100
Piperylene, isomer mix	1,3-Pentadiene	504-60-9	C_5H_8	0.76	+	0.69	+	0.64	+	8.6	100
Propane		74-98-6	C_3H_8			NR	+	1.8	+	10.95	2500
Propanol, n-	Propyl alcohol	71-23-8	C_3H_8O			5		1.7		10.22	200
Propene	Propylene	115-07-1	C_3H_6	1.5	+	1.4	+	1.6	+	9.73	ne
Propionaldehyde	Propanal	123-38-6	C_3H_6O			1.9				9.95	ne
Propyl acetate, n-		109-60-4	$C_5H_{10}O_2$			3.5		2.3		10.04	200
Propylamine, n-	1-Propylamine, 1-Aminopropane	107-10-8	C_3H_9N	1.1	+	1.1	+	0.9	+	8.78	ne
Propylene carbonate *		108-32-7	$C_4H_6O_3$			62	+	1	+	10.5	ne
Propylene glycol	1,2-Propanediol	57-55-6	$C_3H_8O_2$	18		5.5	+	1.6	+	<10.2	ne
Propylene glycol propyl ether	1-Propoxy-2-propanol	1569-01-3	$C_6H_{14}O_2$	1.3	+	1.0	+	1.6	+		ne
Propylene oxide	Methyloxirane	75-56-9 16088-62-3 15448-47-2	C_3H_6O	~240		6.6	+	2.9	+	10.22	20
Propyleneimine	2-Methylaziridine	75-55-8	C_3H_7N	1.5	+	1.3	+	1.0	+	9.0	2
Propyl mercaptan, 2-	2-Propanethiol, Isopropyl mercaptan	75-33-2	C_3H_8S	0.64	+	0.66	+			9.15	ne
Pyridine		110-86-1	C_5H_5N	0.78	+	0.7	+	0.7	+	9.25	5
Pyrrolidine (coats lamp)	Azacyclohexane	123-75-1	C_4H_9N	2.1	+	1.3	+	1.6	+	~8.0	ne
RR7300 (PGME/PGMEA)	70:30 PGME:PGMEA (1-Methoxy-2-propanol:1-Methoxy-2-acetoxypropane)	107-98-2	$C_4H_{10}O_2$ / $C_6H_{12}O_3$			1.4	+	1.0	+		ne
Sarin	GB, Isopropyl methylphosphonofluoridate	107-44-8 50642-23-4	$C_4H_{10}FO_2P$			~3					
Stoddard Solvent - see Mineral Spirits		8020-83-5									
Styrene		100-42-5	C_8H_8	0.45	+	0.40	+	0.4	+	8.43	20
Sulfur dioxide		7446-09-5	SO_2	NR		NR	+	NR	+	12.32	2
Sulfur hexafluoride		2551-62-4	SF_6	NR		NR		NR		15.3	1000
Sulfuryl fluoride	Vikane	2699-79-8	SO_2F_2	NR		NR		NR		13.0	5
Tabun *	Ethyl N, N-dimethylphosphoramidocyanidate	77-81-6	$C_5H_{11}N_2O_2P$			0.8					15ppt
Tetrachloroethane, 1,1,1,2-		630-20-6	$C_2H_2Cl_4$					1.3		~11.1	ne
Tetrachloroethane, 1,1,2,2-		79-34-5	$C_2H_2Cl_4$	NR	+	NR	+	0.60	+	~11.1	1
Tetrachlorosilane		10023-04-7	$SiCl_4$	NR		NR		15	+	11.79	ne
Tetraethyl lead	TEL	78-00-2	$C_8H_{20}Pb$	0.4		0.3		0.2		~11.1	0.008
Tetraethyl orthosilicate	Ethyl silicate, TEOS	78-10-4	$C_8H_{20}O_4Si$			0.7	+	0.2	+	~9.8	10
Tetrafluoroethane, 1,1,1,2-	HFC-134A	811-97-2	$C_2H_2F_4$			NR		NR			ne
Tetrafluoroethene	TFE, Tetrafluoroethylene, Perfluoroethylene	116-14-3	C_2F_4			~15				10.12	ne
Tetrafluoromethane	CFC-14, Carbon tetrafluoride	75-73-0	CF_4			NR	+	NR	+	>15.3	ne
Tetrahydrofuran	THF	109-99-9	C_4H_8O	1.9	+	1.7	+	1.0	+	9.41	200
Tetramethyl orthosilicate	Methyl silicate, TMOS	681-84-5	$C_4H_{12}O_4Si$	10	+	1.9	+			~10	1
Therminol® D-12 *	Hydrotreated heavy naphtha	64742-48-9	m.w. 160	0.8	+	0.51	+	0.33	+		ne
Therminol® VP-1 *	Dowtherm A, 3:1 Diphenyl oxide: Biphenyl	101-84-8 92-52-4	$C_{12}H_{10}O$ $C_{12}H_{10}$			0.4	+				1
Toluene	Methylbenzene	108-88-3	C_7H_8	0.54	+	0.50	+	0.51	+	8.82	50

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Tolylene-2,4-diisocyanate	TDI, 4-Methyl-1,3-phenylene-2,4-diisocyanate	584-84-9	$C_9H_6N_2O_2$	1.4	+	1.4	+	2.0	+		0.002
Trichlorobenzene, 1,2,4-	1,2,4-TCB	120-82-1	$C_6H_3Cl_3$	0.7	+	0.46	+			9.04	C5
Trichloroethane, 1,1,1-	1,1,1-TCA, Methyl chloroform	71-55-6	$C_2H_3Cl_3$			NR	+	1	+	11	350
Trichloroethane, 1,1,2-	1,1,2-TCA	79-00-5	$C_2H_3Cl_3$	NR	+	NR	+	0.9	+	11.0	10
Trichloroethene	TCE, Trichoroethylene	79-01-6	C_2HCl_3	0.62	+	0.54	+	0.43	+	9.47	50
Trichloromethylsilane	Methyltrichlorosilane	75-79-6	CH_3Cl_3Si	NR		NR		1.8	+	11.36	ne
Trichlorotrifluoroethane, 1,1,2-	CFC-113	76-13-1	$C_2Cl_3F_3$			NR		NR		11.99	1000
Triethylamine	TEA	121-44-8	$C_6H_{15}N$	0.95	+	0.9	+	0.65	+	7.3	1
Triethyl borate	TEB; Boric acid triethyl ester	150-46-9	$C_6H_{15}O_3B$			2.2	+	1.1	+	~10	ne
Triethyl phosphate	Ethyl phosphate	78-40-0	$C_6H_{15}O_4P$	~50	+	3.1	+	0.60	+	9.79	ne
Trifluoroethane, 1,1,2-		430-66-0	$C_2H_3F_3$					34		*12.9*	ne
Trimethylamine		75-50-3	C_3H_9N			0.9				7.82	5
Trimethylbenzene, 1,3,5- - see Mesitylene		108-67-8									25
Trimethyl borate	TMB; Boric acid trimethyl ester, Boron methoxide	121-43-7	$C_3H_9O_3B$			5.1	+	1.2	+	10.1	ne
Trimethyl phosphate	Methyl phosphate	512-56-1	$C_3H_9O_4P$			8.0	+	1.3	+	9.99	ne
Trimethyl phosphite	Methyl phosphite	121-45-9	$C_3H_9O_3P$			1.1	+		+	*8.5*	2
Turpentine	Pinenes (85%) + other diisoprenes	8006-64-2	$C_{10}H_{16}$	0.37	+	0.30	+	0.29	+	~8	20
Undecane		1120-21-4	$C_{11}H_{24}$			2				9.56	ne
Varsol – see Mineral Spirits											
Vinyl actetate		108-05-4	$C_4H_6O_2$	1.5	+	1.2	+	1.0	+	9.19	10
Vinyl bromide	Bromoethylene	593-60-2	C_2H_3Br			0.4				9.80	5
Vinyl chloride	Chloroethylene, VCM	75-01-4	C_2H_3Cl			2.0	+	0.6	+	9.99	5
Vinyl-1-cyclohexene, 4-	Butadiene dimer, 4-Ethenylcyclohexene	100-40-3	C_8H_{12}	0.6	+	0.56	+			9.83	0.1
Vinylidene chloride - see 1,1-Dichloroethene											
Vinyl-2-pyrrolidinone, 1-	NVP, N-vinylpyrrolidone, 1-ethenyl-2-pyrrolidinone	88-12-0	C_6H_9NO	1.0	+	0.8	+	0.9	+		ne
Viscor 120B - see Mineral Spirits - Viscor 120B Calibration Fluid											
V. M. & P. Naphtha	Ligroin; Solvent naphtha; Varnish maker's & painter's naptha	64742-89-8	m.w. 111 (C_8-C_9)	1.7	+	0.97	+				300
Xylene, m-	1,3-Dimethylbenzene	108-38-3	C_8H_{10}	0.50	+	0.44	+	0.40	+	8.56	100
Xylene, o-	1,2-Dimethylbenzene	95-47-6	C_8H_{10}	0.56	+	0.46	+	0.43		8.56	100
Xylene, p-	1,4-Dimethylbenzene	106-42-3	C_8H_{10}	0.48	+	0.39	+	0.38	+	8.44	100
None				1		1		1			
Undetectable				1E+6		1E+6		1E+6			

* Compounds indicated in green can be detected using a MiniRAE 2000 or ppbRAE/+ with slow response, but may be lost by adsorption on a MultiRAE or EntryRAE. Response on multi-gas meters can give an indication of relative concentrations, but may not be quantitative and for some chemicals no response is observed.

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Appendix I:
Example of Automatic Calculation of Correction Factors, TLVs and Alarm Limits for Mixtures
(Calculations performed using Excel version of this database, available on request)

Compound	CF 9.8 eV	CF 10.6 eV	CF 11.7eV	Mol. Frac	Conc ppm	TLV ppm	STEL Ppm
Benzene	0.55	0.53	0.6	0.01	1	0.5	2.5
Toluene	0.54	0.5	0.51	0.06	10	50	150
Hexane, n-	300	4.3	0.54	0.06	10	50	150
Heptane, n-	45	2.8	0.6	0.28	50	400	500
Styrene	0.45	0.4	0.42	0.06	10	20	40
Acetone	1.2	1.1	1.4	0.28	50	750	1000
Isopropanol	500	6	2.7	0.28	50	400	500
None	1	1	1	0.00	0	1	
Mixture Value:	2.1	1.5	0.89	1.00	181	56	172
TLV Alarm Setpoint when Calibrated to Isobutylene:	26 ppm	37 ppm	62 ppm		ppm	ppm	ppm
STEL Alarm Setpoint, same Calibration	86 ppm	115 ppm	193 ppm				

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TurnKey Environmental Restoration, LLC

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

EQUIPMENT CALIBRATION

PROJECT INFORMATION:

Project Name: Date:

Project No.:

Client: Instrument Source: ☐ TK ☐ 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:**

TurnKey Environmental Restoration, LLC

Field Operating Procedures

Composite Sample Collection Procedure for Non-Volatile Organic 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 TurnKey's Non-disposable and Non-dedicated Sampling Equipment Decontamination procedures.

7. Prepare samples in accordance with TurnKey'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

TurnKey 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

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						

SAMPLE

Equipment Rinsate Blanks *- Pour clean deionized water over or th... eq...to 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 (e... ...eeds a separate container). Match equipment used for constituents of concern to rinsate analyte. Note deionzied water lot # or distilled water can be substit info & date.*

MS/MSD/MSB *- Collect at a frequency of 1 per 20 samples of each matrix per day... ...ose 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 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.

TurnKey Environmental Restoration, LLC

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. TurnKey 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 TurnKey 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 TurnKey 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 TurnKey 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 TurnKey field supervisor and the driller's representative, and provided to the TurnKey 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

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.:	IMPORTANT TELEPHONE CALLS:
P.M.:	
BM/TK PERSONNEL ON SITE:	
SIGNATURE	DATE:

FOP 015.0

DOCUMENTATION REQUIREMENTS FOR DRILLING AND WELL INSTALLATION

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, ...ticity, Fabric, Bedding, Weathering/Fracturing, Odor SURFACE ELEVATION (FMSL):	REMARKS

SAMPLE

ABANDONMENT:

Volume of cement/bentonite grout required:	V = pr2 x 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:	**TurnKey Environmental Restoration, LLC**	Figure

DOCUMENTATION REQUIREMENTS FOR DRILLING AND WELL INSTALLATION

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, Fabric, Bedding, Weathering/Fracturing, Odor, Other SURFACE ELEVATION (FMSL):	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS

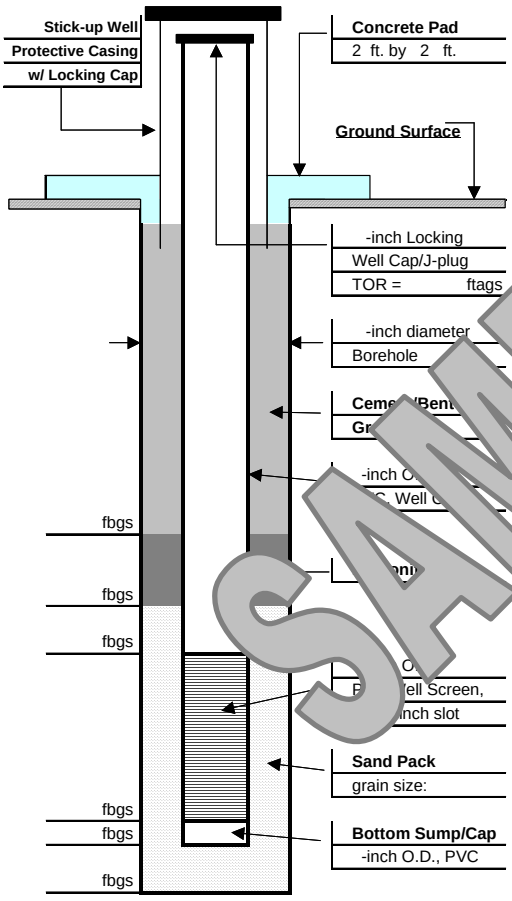
SAMPLE

Project No:	**TurnKey Environmental Restoration, LLC**	Figure

DOCUMENTATION REQUIREMENTS FOR DRILLING AND WELL INSTALLATION

STICK-UP MONITORING WELL 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 Surface Ele	fmsl (approximate)
Method:	
Sa le Collection	
Los g Dri	gallons (approximate)

of We truction

g:	
n:	
Sa	
and	
ular Seal:	

ll Development

Well Purpose:	
Techneque(s):	
Date Completed:	
BM/TK Personnel:	
Total Volume Purge:	gallons
Static Water Level (SWL):	fbTOR
Pump Depth: bottom of well	
Purge Duration:	minutes
Yeild:	gpm
Specific Capacity:	gpm/ft

SAMPLE

Comments: saturated thickness: SWL - stickup = fbgs

Total Depth = fbTOR Total Depth - SWL = feet

stick-up = feet

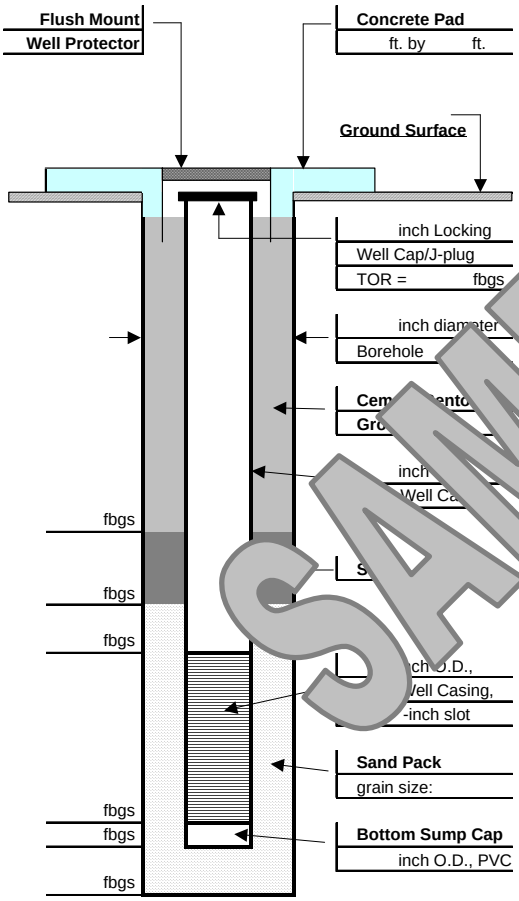
Total Depth = fbgs

PREPARED BY: DATE:

DOCUMENTATION REQUIREMENTS FOR DRILLING AND WELL INSTALLATION

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 Typ	

Well Informa

Land Surface Ele	fmsl (approximate)
Method:	
Soi le Collection	
rilling	
os D	gallons (approximate)

of We struction

g:	
Sur	
nd P	
r Seal:	

ll Development

Well Purpose:	
Techneque(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:

FOP 015.0

DOCUMENTATION REQUIREMENTS FOR DRILLING AND WELL INSTALLATION

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, quantity, siz

ITEM OR SERVICE	QUANTITIES	LOCATION				TOTALS
Starting depth (fbgs)						--
Ending depth (fbgs)						--
Total footage drilled (feet)						
Drilling Method (HSA, air rotary, cab						--
Auger/Bit size						--
CSSS starting depth (f						--
CSSS ending depth (f						--
Total CSSS footage						
-inch Schedule 40 P						
-inch Schedule 40 PVC						
-inch Schedule 40 PVC screen, slot s						
-inch Schedule 40 PVC riser						
-inch Schedule 40 PVC screen,						
-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

TurnKey Environmental Restoration, LLC

FIELD OPERATING PROCEDURES

Downhole Geophysical Survey

FOP 016.0

DOWNHOLE GEOPHYSICAL SURVEY

PURPOSE

This procedure describes a method for down-hole geophysical surveys to characterize the electrical conductivity of stratigraphic units.

Downhole geophysical techniques will be conducted to define the vertical distribution of ground water contamination, if present, within the soils outside the perimeter of the existing PVC-cased monitoring wells and some of the wells that may be installed as part of this program. Mapping the vertical extent of a contaminant plume will assist in the development of a conceptual model of site and will assist in future monitoring efforts.

PROCEDURE

Conductivity is measured through the non-metallic casing by EM induction. The Geonics EM39 induction probe measures the apparent conductivity (in units of milliSiemens per meter (mS/m)) of the formation. The induction probe can measure the vertical extent of a contaminant plume where the ground water has a higher specific conductance than background conditions. The induction probe measures these zones of high electrical conductivity approximately one to two feet from the probe that ensures the response is related primarily to material within the geologic formation. There is a negligible effect from the specific conductance of the ground water in the monitoring well and the well bore on the instrument response.

Data will be acquired with the Mount Sopris MGX Logging System. It is a portable digital borehole geophysical logging systems designed for shallow (1,000 feet or less) environmental and engineering projects. The system is computer driven with a notebook computer using

the manufacturer's software. The system consists of a motorized winch with a digital depth encoder attached to a component console.

Data are graphically displayed on a computer screen during data acquisition such that anomalous responses can be immediately identified and revisited, if necessary. Preliminary field analysis and plots are available on request. Final analysis and data presentation is made using VIEWLOG software. VIEWLOG is a borehole data base system with functions for log analysis including cross-plotting, statistical analysis, log data processing, interpretation and plotting. The resultant plots compare the borehole geophysical response with the geologic log, ground water monitor construction details, hydraulic head data and a summary of the geochemical results, if available.

ATTACHMENTS

none

TurnKey Environmental Restoration, LLC

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

TurnKey Environmental Restoration, LLC

FIELD OPERATING PROCEDURES

Drilling & 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 TurnKey Field Operating Procedure for Management of Investigation-Derived Waste.

ATTACHMENTS

none

TurnKey Environmental Restoration, LLC

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 TurnKey's 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

TurnKey FOPs:
040 Non-Disposable and Non-Dedicated Sampling Equipment Decontamination

GROUNDWATER LEVEL MEASUREMENT

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)

TurnKey Environmental Restoration, LLC

FIELD OPERATING PROCEDURES

Groundwater Purging Procedures Prior to Sample Collection

FOP 023.1

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 TurnKey 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 TurnKey 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 TurnKey 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 TurnKey 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. **A peristaltic pump and dedicated tubing cannot be used to collect VOC or SVOC project-required samples; only non-organic compounds may be collected using this type of pump.**

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.

- Submersible Pump (12 or 24 volt, or similar) – These submersible pumps are constructed of PVC or stainless steel and are capable of pumping up to 70 feet from ground surface using a 12 volt battery (standard pump) and standard low flow controller. For depths up to 200 feet from ground surface, a high performance power booster controller is used with a 12 volt battery. Unless these pumps are dedicated to the monitoring well location, decontamination between locations is necessary and an equipment blank may be required.

- 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 TurnKey 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 TurnKey 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

TurnKey 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*

GROUNDWATER PURGING PROCEDURES PRIOR TO SAMPLE COLLECTION

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 ☐ Sampling			
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:									
	S1								
	S2								

Well No.			Diameter (inches):			Sample Time:			
Product Depth (fbTOR):			Water Column (ft):			DTW when sampled:			
DTW (static) (fbTOR):			Casing Volume:			Purpose: ☐ Development ☐ Sampling			
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:									
	S1								
	S2								

SAMPLE

REMARKS:

Note: All 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:

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

TurnKey Environmental Restoration, LLC

FIELD OPERATING PROCEDURES

Groundwater Sample Collection Procedures

FOP 024.1

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 TurnKey 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 TurnKey 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 TurnKey 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 TurnKey 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 TurnKey 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 TurnKey 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 TurnKey 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 TurnKey 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 TurnKey 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).
3. 1,4-dioxane will be analyzed via the 8270 SIM method.

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

TurnKey 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

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 ☐ Sampling			
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:									
	S1								
	S2								

Well No.			Diameter (inches):			Sample Time:			
Product Depth (fbTOR):			Water Column (ft):			DTW when sampled:			
DTW (static) (fbTOR):			Casing Volume:			Purpose: ☐ Development ☐ Sampling			
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:									
	S1								
	S2								

SAMPLE

REMARKS:

Note: All 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:

FIELD OPERATING PROCEDURES

Perfluorooctanoic Acid (PFOA) & Perfluorooctanesulfonic Acid (PFOS) Groundwater Sample Collection Procedures

FOP 024.2

PFOA & PFOS GROUNDWATER SAMPLE COLLECTION PROCEDURES

PURPOSE

This procedure describes the methods for collecting perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS) groundwater samples from monitoring wells and domestic supply wells following purging and sufficient recovery. This procedure is specific to sites where PFOA & PFOS sample analysis is required and analysis specific collection and handling procedures are needed.

PROCEDURE

Prior to sampling discuss with the Sites Project Manager whether the monitoring wells that are to be sampled for the PFAS analytical parameters are new monitoring wells or existing monitoring wells. The specific handing and collection procedures for PFOA & PFOS sampling is solely based on job preparation and sampling equipment used for the job. The standard practice of a ten (10) volume surge and purge of a newly installed monitoring well for development as discussed in TurnKey's FOP 036.0 – Monitoring Well Development Procedures and three (3) volume well purge and/or low flow sampling that are discussed in TurnKey's FOP 023.1 for Groundwater Procedures Prior to Sample Collection remain the same.

FIELD CLOTHING

For both the lead sampling technician and the field technician should be prepared with clothing, equipment and sampling containers appropriate for PFOA & PFOS sampling.

Unacceptable Field Clothing

- No Gore-Tex® this includes but not limited to; boots, gloves, coveralls, hats and coats.

- No Tyvex® this includes but not limited to; coveralls, boots, hoods and head coverings. Tyvex® is also found in every day items such as envelopes, receipts and adhesives.

- No clothes, jackets, boots or gloves that have been pretreated with Teflon® water proofing. Teflon® can be found in every day items such as scissors, plumers tape, adhesive tapes, Teflon ® paper for crafting and cooking and utensils.

- No brand new unwashed cotton clothing.

- Don't use any fabric softener with your washed clothes prior to sampling.

- Do not apply cosmetics or moisturizers prior to sampling.

- Don't use standard commercial sunscreen or insect repellents. Use only all natural or organic products.

Acceptable Field Clothing

- Well-worn washed clothes, jackets hats and coveralls w/out fabric softener usage.

- Rain Gear made from PVC or polyurethane only (it cannot contain any of the products listed above.)

- Only use natural and/or organic sun screens and insect repellants.

- Disposable powder free nitrile gloves.

FIELD EQUIPMENT

Unacceptable Field Equipment

- Sampling Equipment containing Teflon® or Low-Density Polyethylene (LDPE). Sampling equipment that may contain these materials are; submersible pumps, bailers, tubing, braided poly rope or cord, fishing line.
- Water proof field books, binders, plastic clip boards, spiral hard cover note books.
- No adhesives or permanent makers can be used (i.e Post-It® notes and Sharpies).
- No Aluminum foil or sampling tins.
- No blue ice packs

Acceptable Field Equipment

- Sampling Equipment made from High Density Polethylene (HDPE), stainless steel, acetate, silicon, or polypropylene.

ATTACHMENTS

Groundwater Field Form (sample)

REFERENCES

TurnKey FOPs:

023 Groundwater Purging Procedures Prior to Sample Collection

036 Monitoring Well Development Procedures

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 ☐ Sampling			
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								
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	3								
	4								
	5								
	6								
	7								
	8								
	9								
	10								
Sample Information:									
	S1								
	S2								

Well No.			Diameter (inches):			Sample Time:			
Product Depth (fbTOR):			Water Column (ft):			DTW when sampled:			
DTW (static) (fbTOR):			Casing Volume:			Purpose: ☐ Development ☐ Sampling			
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:									
	S1								
	S2								

SAMPLE

REMARKS:

Note: All 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:

TurnKey Environmental Restoration, LLC

Field Operating Procedures

Hand Augering Procedure

FOP 025.0

HAND AUGERING PROCEDURES

PURPOSE

This guideline presents a method for hand augering, which enables the recovery of representative surface and shallow subsurface samples for classification and sample collection (ASTM D1452).

PROCEDURE

1. Review project objectives and the Project Health and Safety Plan (HASP).

2. Follow TurnKey's FOP: Drill Site Selection Procedure prior to implementing any hand augering activity.

3. Establish a central staging area for storage of augering supplies and for equipment decontamination (include plastic-covered work bench/table as necessary). Locate a secure storage area for augered samples.

4. Assemble auger and decontaminate in accordance with TurnKey's FOP: Non-Disposable and Non-Dedicated Sampling Equipment Decontamination.

5. Cover the area to be sampled with plastic sheeting, as determined by the Project Work Plan.

6. Make the auger boring through the plastic sheeting by rotating and advancing the auger to the desired depth below ground surface.

7. Withdraw the auger from the hole and remove soil for examination, soil classification, on-site testing (if applicable) and laboratory physical/chemical sample collection (if applicable) in accordance with specific TurnKey FOPs (Soil Description Procedures Using the Unified Soil Classification System; Composite Sample Collection Procedure for Non-Volatile Organic Analysis; and/or Soil Sample Handling for VOC Analysis) and as directed by the Project Work Plan.

8. Document all properties and sample locations in the Project Field Book and Hand Auger Borehole Log (sample attached). Specifically, total depth, borehole diameter, depth of sample collection, personnel, etc. should be recorded.

9. Place sample in appropriate container(s), label and store for future reference or ship to laboratory for analysis in accordance with TurnKey's Field Operating Procedure for Sample Labeling, Storage and Shipment.

10. Decontaminate auger in accordance with TurnKey's Field Operating Procedure for Non-Disposable and Non-Dedicated Sampling Equipment Decontamination.

11. Advance auger to next sample interval and repeat steps 7 through 12 as necessary.

12. Backfill auger holes in accordance with approved procedures outlined in the Project Work Plan.

ATTACHMENTS

Hand Auger Borehole Log (sample)

REFERENCES

TurnKey FOPs:

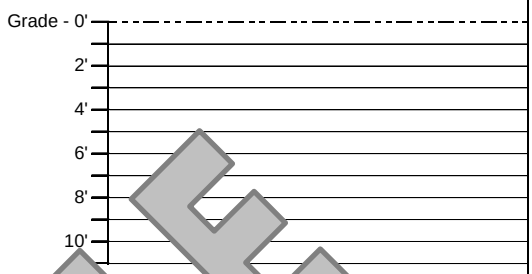
013 Composite Sample Collection Procedure for Non-Volatile Organic Analysis
017 Drill Site Selection Procedure
040 Non-Disposable and Non-Dedicated Sampling Equipment Decontamination
046 Sample Labeling, Storage and Shipment
054 Soil Description Procedures Using the Unified Soil Classification System
057 Soil Sample Handling for Volatile Organic Compound Analysis – Encore Sampling

HAND AUGER BOREHOLE LOG

Project:	BOREHOLE I.D.:
Project No.:	Excavation Date:
Client:	Excavation Method:
Location:	Logged / Checked By:

Hand Auger Location: *NOT TO SCALE*

Hand Auger Cross Section:



TIME	BOREHOLE DIMENSIONS	
Start:	Diameter:	(approx.)
End:	Depth:	(approx.)

Depth (fbgs)	SAMPLE DESCRIPTION USCS Classification: Color, Moisture, ... Texture, Plasticity, Fabric, Bedding, Weathering, ... Other	Photos Y / N	Samples Collected (fbgs)

SAMPLE

COMMENTS:			
GROUNDWATER ENCOUNTERED:	yes	no	If yes, depth to GW:
VISUAL IMPACTS:	yes	no	Describe:
OLFACTORY OBSERVATIONS:	yes	no	Describe:
NON-NATIVE FILL ENCOUNTERED:	yes	no	
OTHER OBSERVATIONS:	yes	no	Describe:
SAMPLES COLLECTED:	yes	no	Sample I.D.:
			Sample I.D.:
			Sample I.D.:

TurnKey Environmental Restoration, LLC

FIELD OPERATING PROCEDURES

Hollow Stem Auger (HSA) 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 TurnKey'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 TurnKey'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 TurnKey field supervisor.

10. Collect soil samples via split spoon sampler in accordance with TurnKey'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 TurnKey'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 TurnKey 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 TurnKey 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

TurnKey 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*

DRILLING SAFETY CHECKLIST

Project:	Date:
Project No.:	Drilling Company:
Client:	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?		

SAMPLE

DRILLING SAFETY CHECKLIST

Project: Date:

ITEMS TO CHECK	OK	ACTION NEEDED
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?		
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 **TurnKey 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:

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:

SAMPLE

TurnKey Environmental Restoration, LLC

Field Operating Procedures

Low-Flow (Minimal Drawdown) Groundwater Purging & Sampling Procedure

FOP 031.2

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 TurnKey's Groundwater Level Measurement FOP and decontaminate the e-line probe and a lower portion of cable following the procedures referenced in the TurnKey'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 TurnKey'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 TurnKey'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 TurnKey'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. If the water level continues to drop and will not stabilize, the monitoring location is not conducive to low-flow sampling and conventional purge and sample methods should be performed.

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 or at least a minimum of three (3) well volumes have been removed. 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 TurnKey's Groundwater Sample Collection Procedures FOP. **A peristaltic pump and dedicated tubing cannot be used to collect VOC or SVOC project-required samples; only non-organic compounds may be collected using this type of pump.** 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.

ATTACHMENTS

Groundwater Field Form (sample)

REFERENCES

United States Environmental Protection Agency, 540/S-95/504, 1995. *Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures.*

TurnKey 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

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 ☐ Sampling			
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:									
	S1								
	S2								

Well No.			Diameter (inches):			Sample Time:			
Product Depth (fbTOR):			Water Column (ft):			DTW when sampled:			
DTW (static) (fbTOR):			Casing Volume:			Purpose: ☐ Development ☐ Sampling			
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:									
	S1								
	S2								

SAMPLE

REMARKS:

Note: All 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:

TurnKey Environmental Restoration, LLC

FIELD OPERATING PROCEDURES

Management of Investigation-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 TurnKey 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 TurnKey'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

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):

Project Name:
Project Number:

Container I.D.:
Contents/Matrix:
Estimated Quantity:
Date of Generation:
Date of Sample Collection:

Contact Name:
Contact Phone Number:

TurnKey Environmental Restoration, LLC

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 TurnKey'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 TurnKey'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 TurnKey's Field Operating Procedure for Monitoring Well Development.

18. Manage all waste materials generated during well installation and development as described in the TurnKey's Field Operating Procedure for Management of Investigation Derived Waste.

ATTACHMENTS

Field Borehole/Monitoring Well Installation Log (sample)
Typical Monitoring Well Detail (Figure 1)

REFERENCES

TurnKey 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

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, Fabric, Bedding, Weathering/Fracturing, Odor, Other	
							SURFACE ELEVATION (FMSL):	

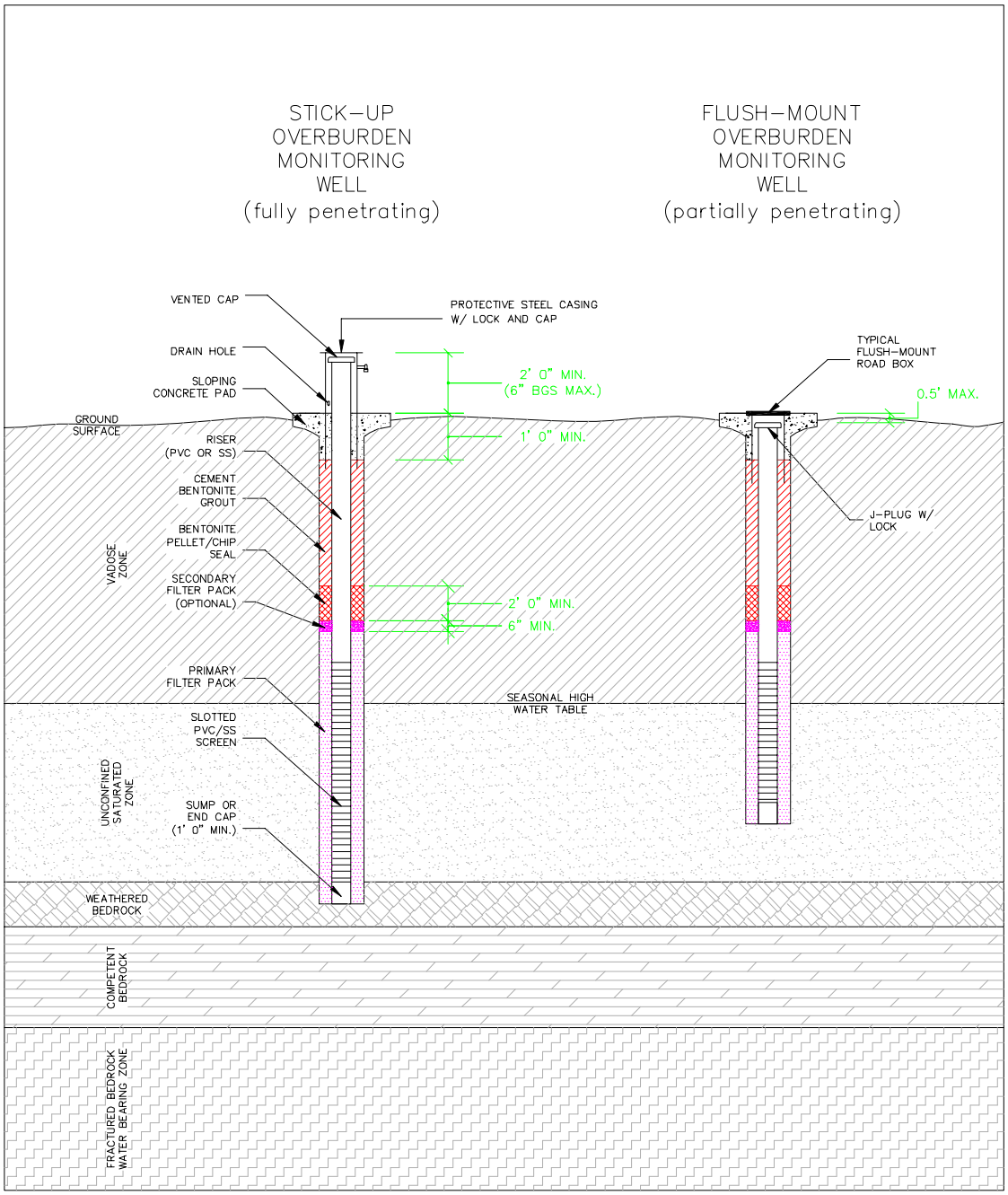
SAMPLE

Project No:	**TurnKey Environmental Restoration, LLC**	Figure

FOP 033.0

MONITORING WELL CONSTRUCTION FOR HOLLOW STEM AUGER BOREHOLES

FIGURE 1



TurnKey Environmental Restoration, LLC

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 TurnKey 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 TurnKey's 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 Groundwater Well Development Log (sample attached).

ATTACHMENTS

Groundwater Well Development Log (sample)

REFERENCES

TurnKey FOPs:
040 Non-Disposable and Non-Dedicated Sampling Equipment Decontamination

MONITORING WELL DEVELOPMENT PROCEDURES

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): $V = 0.0408 [(B)^2 \times \{ (A) - (C) \}]$	

*Use the table to the right to calculate one well

Volume Calculati

Well Diam	Volume gal/ft
1"	.041
4"	0.65
	1.020
	1.469
8"	2.611

Stabilization Criteria

Pa ter	Criteria
	+/- 0.3 mg/L
bidity	+/- 10%
SC	+/- 3%
ORP	+/- 10 mV
pH	+/- 0.1 unit

Field Personnel:

EVACUATION STABILIZATION

Time	Water Level (fbTOR)	Accumulat Volume (gallons)		Ter (degre	ific nce (m h)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor

REMARKS:

PREPARED BY:

SAMPLE

TurnKey Environmental Restoration, LLC

FIELD OPERATING PROCEDURES

NAPL Detection and Sample Collection Procedure

FOP 039.1

NON-AQUEOUS PHASE LIQUID DETECTION AND SAMPLE COLLECTION PROCEDURE

PURPOSE

This procedure describes the methods to detect the presence and sample collection of Non-Aqueous Phase Liquid (NAPL) in groundwater monitoring wells prior to purging activities. If NAPL is suspected, all activities should be performed with proper personnel protective equipment (PPE).

DETECTION PROCEDURE

Groundwater monitoring wells suspected of containing NAPL will be sounded with an interface probe, or similar device, in accordance with the following.

1. 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.

2. Unlock and remove the well protective cap or cover and place on clean plastic to avoid introducing foreign material into the well.

3. Calibrate the photoionization detector (PID) in accordance with the TurnKey Field Operating Procedure for Calibration and Maintenance of Portable Photoionization Detector.

4. 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 the Groundwater Field Form (sample attached).

5. Slowly lower the interface probe down the well, avoiding contact with the well casing. Upon contact with the static liquid level in the well, the interface

probe will signal contact with an audible tone and/or a visible light mounted inside the reel.

Note:

- If the signal is constant, the probe is in contact with groundwater; and
- If the signal oscillates, the probe is in contact with NAPL.

6. Record the depth, type of liquid encountered (if applicable) and any other related information in the Project Field Book and on a Groundwater Field Form (sample attached).

7. Slowly lower the interface probe to the well bottom. Record the depth(s) and type(s) of any additional phases encountered.

8. Slowly raise the interface probe to the surface, avoiding contact with the well casing.

9. Place the interface probe and storage reel in a plastic bag for subsequent decontamination in accordance with the TurnKey's Field Operating Procedure for Non-Disposable and Non-Dedicated Sampling Equipment Decontamination.

SAMPLE COLLECTION PROCEDURE

All NAPL samples collected from groundwater monitoring wells will be collected in accordance with the following.

1. Place plastic sheeting on the ground around the well to prevent equipment from coming in contact with soil and also to prevent the surface transmission of NAPL.

2. All sampling personnel will don the appropriate PPE in accordance with the site health and safety plan.

3. Measure the static water level and NAPL level(s) using an interface probe as described in the previous section.

4. Determine depth to NAPL layer and thickness. Record appropriate data in the Project Field Book and on a Groundwater Sample Collection Log form (sample attached).

DNAPL SAMPLE COLLECTION

The following procedure should be used in sampling dense, heavier than water NAPL (i.e., with a high specific gravity) (DNAPL).

1. Collect samples using a translucent double check valve bailer (i.e., a bailer with a ball valve on both the top and bottom) constructed of Teflon, polyethylene or PVC which is connected to polypropylene rope for lowering into the well. All non-dedicated equipment shall be decontaminated in accordance with the TurnKey's Field Operating Procedure for Non-Disposable and Non-Dedicated Sampling Equipment Decontamination.

2. Remove wrapping (i.e., aluminum foil, manufacturers packaging etc.), attach bailer to new polypropylene rope and slowly lower the bailer until it contacts the well bottom.

3. Slowly raise and lower the bailer to create a gentle surging action thereby inducing DNAPL into the bailer past the bottom ball valve.

4. Slowly raise the bailer to the surface. Avoid contact of the bailer line with the well casing and/or ground surface.

5. Observe the DNAPL through the translucent wall of the bailer and check if the immiscible phases have separated. If not, allow the bailer to stand upright until the phases have separated.

6. Carefully attach a bottom-emptying device with stopcock to the bottom of the bailer and discharge the DNAPL gently down the side of the sample bottle to minimize turbulence.

7. Repeat steps 2 through 6 until a sufficient sample volume is obtained.

8. Cap the sample bottle and label, preserve and ship samples in accordance with the TurnKey's Field Operating Procedure for Sample Labeling, Storage and Shipment Procedures.

9. Place the used plastic sheeting, bailer and polyethylene rope in a plastic bag for subsequent decontamination or disposal.

10. Document the sampling procedures and related information in the Project Field Book and on a Groundwater Sample Collection Log form (sample attached).

LNAPL SAMPLE COLLECTION

The following procedure should be used in sampling lighter than water NAPL (i.e., with a low specific gravity) (LNAPL).

1. Collect samples using a translucent double check valve bailer (i.e., a bailer with a ball valve on both the top and bottom) constructed of Teflon, polyethylene or PVC which is connected to polypropylene rope for lowering into the well. All non-dedicated equipment shall be decontaminated in accordance with the TurnKey's Field Operating Procedure for Non-Disposable and Non-Dedicated Sampling Equipment Decontamination.

2. Remove wrapping (i.e., aluminum foil, manufacturers packaging etc.), attach bailer to new polypropylene rope and slowly lower the bailer down the well into the immiscible phase of LNAPL. Care should be taken to lower the bailer just through the LNAPL layer, but not significantly down into the underlying groundwater.

3. Slowly raise the bailer to the surface. Avoid contact of the bailer line with the well casing and/or ground surface.

4. Observe the LNAPL through the translucent wall of the bailer and check if the immiscible phases have separated. If not, allow the bailer to stand upright until the phases have separated.

5. Carefully attach a bottom-emptying device with stopcock to the bottom of the bailer and decant the denser groundwater portion of the bailer contents into a DOT-approved 55-gallon drum for proper disposal.

6. Discharge the LNAPL gently down the side of the sample bottle to minimize turbulence.

7. Repeat steps 2 through 6 until a sufficient sample volume is obtained.

8. Cap the sample bottle and label, preserve and ship samples in accordance with the TurnKey's Field Operating Procedure for Sample Labeling, Storage and Shipment Procedures.

9. Place the used plastic sheeting, bailer and polyethylene rope in a plastic bag for subsequent decontamination or disposal.

10. Document the sampling procedures and related information in the Project Field Book and on a Groundwater Sample Collection Log form (sample attached).

ATTACHMENTS

Groundwater Field Form (sample)

REFERENCES

TurnKey FOPs:

011 *Calibration and Maintenance of Portable Photoionization Detector*
040 *Non-Disposable and Non-Dedicated Sampling Equipment Decontamination*
046 *Sample Labeling, Storage and Shipment Procedures*

NON-AQUEOUS PHASE LIQUID DETECTION AND SAMPLE COLLECTION PROCEDURE

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 ☐ Sampling			
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:									
	S1								
	S2								

Well No.			Diameter (inches):			Sample Time:			
Product Depth (fbTOR):			Water Column (ft):			DTW when sampled:			
DTW (static) (fbTOR):			Casing Volume:			Purpose: ☐ Development ☐ Sampling			
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:									
	S1								
	S2								

SAMPLE

REMARKS:

Note: All 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:

TurnKey Environmental Restoration, LLC

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 TurnKey's 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

TurnKey FOPs:
032 Management of Investigation-Derived Waste

TurnKey Environmental Restoration, LLC

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 TurnKey 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 TurnKey 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

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 dec[illegible] 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. H[illegible] Metals analyzed for that day (except Hexavalent Chromium which needs a separate container). Match equipment used for constituents of concern to rinsate analyte. [illegible] water manufacturers info & date.*

MS/MSD/MSB *- Collect at a frequency of 1 per 20 samples of each [illegible] day. A[illegible] rs analyzed for the samples collected the same day.*

Field Blank *- Pour clean deionized water (used as final decon rinse w[illegible] e 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 *- One co[illegible] rums of decon fluids and soil. Please note number of drums and labels on collection log.*

Notes:

1. See QAPP for sampling frequency and actual numb[illegible]
2. CWM - clear, wide-mouth glass jar with Teflon-lined ca[illegible]
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

GROUNDWATER/SURFACE WATER 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 dec[illegible] 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. H[illegible] Metals analyzed for that day (except Hexavalent Chromium which needs a separate container). Match equipment used for constituents of concern to rinsate analyte.* [illegible] *water manufacturers info & date.*

MS/MSD/MSB *- Collect at a frequency of 1 per 20 samples of each [illegible] day. A[illegible] rs analyzed for the samples collected the same day.*

Field Blank *- Pour clean deionized water (used as final decon rinse w[illegible] e 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 *- One co[illegible] rums of decon fluids and soil. Please note number of drums and labels on collection log.*

Notes:

1. See QAPP for sampling frequency and actual numb[illegible]
2. CWM - clear, wide-mouth glass jar with Teflon-lined c[illegible]
3. HDPE - high density polyethylene bottle.
4. FD - Field Duplicate.
5. MS/MSD/MSB - Matrix Spike, Matrix Spike Duplicate, Matrix Spike Blank.
6. BD - Blind Duplicate.

SAMPLE

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 S… Blanks fo… sa…
7. Rinsates should be taken at a rate of 1 per day … sampling … …us…le equipment is used.
8. Wipe sample FB collected by wiping unused gl… …d a… other sam… …ling 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 samp… …r 2… …les.
10. **EH :** Extract and Hold

SAMPLE

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 n[illegible] of [illegible] samples.
2. SC - Summa Canister.
3. TB - Tedlar Bag (quantity).
4. No Matrix Spike, Matrix Spike Duplicate, Matrix Spike [illegible] Field [illegible]ate, Field Blanks or Rinsates collected for air samples.

SAMPLE

SAMPLE LABELING, STORAGE & SHIPMENT PROCEDURES

CHAIN OF CUSTODY RECORD

Project No.	Project Name																				
Samplers (Signature)																					
No.	Date	Time	comp	grab	Sample Identification	Number of Containers	VOCs	SVOCs	Metals												REMARKS

Possible Hazard Identification:
☐ Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B [illegible] [illegible] to Client ☐ Disposal by Lab ☐ Archive _____(mos.)

Turnaround Time Required:
Normal ☐ Rush ☐ [illegible] II. ☐ III. ☐ Project Specific (specify):_____

Relinquished by: (Signature)	Date	Time	Re[illegible]Signature)	Date	Time	REMARKS:
Relinquished by: (Signature)	Date	[illegible]	[illegible] (Signature)	Date	Time	

SAMPLE

TurnKey Environmental Restoration, LLC

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 TurnKey's Field Operating Procedures or manufacturers recommendations for calibration of field meters.

2. Collect split-spoon (or other sampler) samples in accordance with TurnKey'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

TurnKey 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

FOP 047.0

SCREENING OF SOIL SAMPLES FOR ORGANIC VAPORS DURING DRILLING ACTIVITIES

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, Texture, Plasticity, Fabric, Bedding, Weathering/Fracturing, Odor, Other SURFACE ELEVATION (FMSL):	REMARKS

SAMPLE

ABANDONMENT:			
Volume of cement/bentonite grout required:	V = pr2 x 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:	**TurnKey Environmental Restoration, LLC**		Figure

FOP 047.0

SCREENING OF SOIL SAMPLES FOR ORGANIC VAPORS DURING DRILLING ACTIVITIES

FIELD GEOPROBE BOREHOLE \ TEMPORARY WELL INSTALLATION LOG

PROJECT:			**Log of Temp. 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, Plasticity, Fabric, Bedding, Weathering/Fracturing, Odor; SURFACE ELEVATION (FMSL):	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS

SAMPLE

Project No:	TurnKey Environmental Restoration, LLC	Figure

TurnKey Environmental Restoration, LLC

FIELD OPERATING PROCEDURES

Screening of Soil Samples for Organic Vapors During Impacted Soil Removal Activities

FOP 048.0

SCREENING OF SOIL SAMPLES FOR ORGANIC VAPORS DURING IMPACTED SOIL REMOVAL ACTIVITIES

PURPOSE

This procedure is used to screen soil samples for the presence of volatile organic constituents (VOCs) using a field organic vapor meter. The field meter should either be a photoionization detector (PID) or flame-ionization detector (FID) type. This type of screening is generally performed during underground storage tank (UST) and/or impacted soil removal activities as a procedure for ensuring the health and safety of the community and personnel at the site as well as to identify potential VOC-impacted soil samples for laboratory analysis (i.e., confirmatory or verification samples). Soil samples are also screened in the field to provide assessment criteria to determine horizontal and vertical extents of VOC-impacts in order to ensure soils that may have been impacted by volatile organic substances are removed.

PROCEDURE

1. Calibrate air-monitoring equipment in accordance with the appropriate TurnKey's Field Operating Procedures or manufacturers recommendations for calibration of field meters.

2. Perform community air monitoring in accordance with the Project Work Plan and/or TurnKey's FOP: Real-Time Air Monitoring During Intrusive Activities.

3. Upon proper removal of any identified UST in accordance with NYSDEC Division of Environmental Remediation, Spill Response Unit or Bulk Storage Unit guidelines and/or TurnKey's FOP: Underground Storage Tank Removal Procedures; examine the four sidewalls and bottom of the excavation for visually impacted (i.e., stained) soils.

4. If visually impacted soils are identified, direct the excavating equipment operator to scrape the impacted area (i.e., sidewall or bottom of the excavation) and present the scraped soil for evaluation. NOTE: Under no circumstances should anyone enter an excavation greater than 4 feet in depth, unless absolutely necessary. Excavation entry may only occur under strict confined space entry procedures following implementation of specific engineering controls (i.e., continuous air monitoring, excavation shoring, trench box installation, benching).

5. Visually inspect and perform an open air PID/FID scan of the scraped soil sample noting stratification, visible staining, or other evidence of impact (i.e., presence of non-aqueous phase liquid, NAPL).

6. Collect a representative sample (approximately 100 milligrams (mg)) of soil using a decontaminated or dedicated stainless steel sampling tool (i.e., spoon, spatula, scoop, or approved equivalent), for field headspace determination of VOC-impact. Place the representative soil sample 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 sample may be placed into a clean, re-sealable plastic bag and sealed. Be sure to leave adequate headspace above the soil sample within either sealed container.

7. Place the field screening sample (i.e., jar or bag) in a location where the ambient temperature is at least 70^{o} Fahrenheit for at least 15 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 depth, sample location (i.e., sidewall, bottom) and <u>maximum</u> reading in parts per million by volume (ppmv) in the Project Field Book and Impacted Soil Excavation Log (sample attached), at the depth interval corresponding to the depth of sample collection.

10. The representative soil samples collected from the excavation will be used to assess the vertical and horizontal limits of VOC-impact and guide the impacted soil removal activities in accordance with project requirements (i.e., PID scans less than 20 ppm will not require removal unless laboratory analytical results exceed regulatory limits).

11. Collect verification/confirmation samples in accordance with NYSDEC Division of Environmental Remediation, Spill Response Unit or Bulk Storage Unit guidelines and/or TurnKey's FOP: Surface and Subsurface Soil Sampling Procedures.

ATTACHMENTS

Impacted Soil Excavation Log (sample)

REFERENCES

TurnKey FOPs:

010 *Calibration and Maintenance of Portable Flame Ionization Detector*
011 *Calibration and Maintenance of Portable Photoionization Detector*
063 *Surface and Subsurface Soil Sampling Procedures*
073 *Real-Time Air Monitoring During Intrusive Activities*
074 *Underground Storage Tank Removal Procedures*

FOP 048.0

SCREENING OF SOIL SAMPLES FOR ORGANIC VAPORS DURING IMPACTED SOIL REMOVAL ACTIVITIES

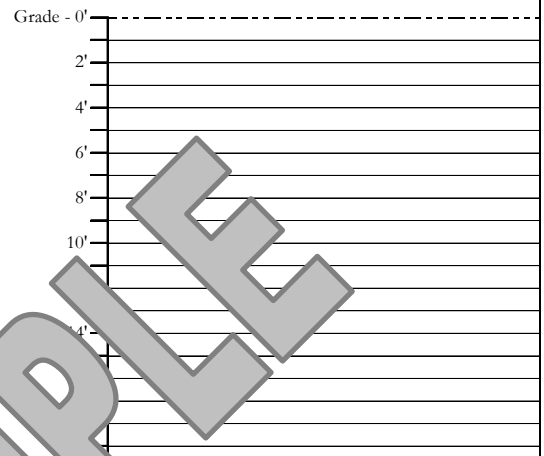
BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

IMPACTED SOIL EXCAVATION LOG

Project:	EXCAVATION I.D.:
Project No.:	Excavation Date:
Client:	Excavation Method:
Location:	CQA Observer:

Excavation Location: *NOT TO SCALE*
(approximate)

Excavation Cross Section:



SAMPLE

TIME	Length:					
Start:	Width:					
End:	Depth:					

Verification Sample I.D.	D… (ft…	…ca… (sid…	…hi…	PID Scan (ppm)	PID Headspace (ppm)	Photos Y / N	

COMMENTS:

UST ENCOUNTERED:	☐ yes	☐ no	If yes, Describe (type, material, size, capacity etc.):
GROUNDWATER ENCOUNTERED:	☐ yes	☐ no	If yes, depth to GW:
VISUAL IMPACTS:	☐ yes	☐ no	Describe:
OLFACTORY OBSERVATIONS:	☐ yes	☐ no	Describe:
NON-NATIVE FILL ENCOUNTERED:	☐ yes	☐ no	
OTHER OBSERVATIONS:	☐ yes	☐ no	Describe:
QUANTITY OF IMPACTED SOIL REMOVED:			
FINAL DESTINATION OF IMPACTED SOIL:			
TYPE OF BACKFILL:			
SURFACE COMPLETION:			

TURNKEY ENVIRONMENTAL RESTORATION, LLC

TurnKey Environmental Restoration, LLC

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.

SOIL DESCRIPTION PROCEDURES USING THE VISUAL-MANUAL METHOD

PROCEDURE

Assemble necessary equipment and discuss program requirements with drilling contractor.

1. Calibrate air-monitoring equipment in accordance with the appropriate TurnKey's Field Operating Procedures or manufacturers recommendations for calibration of field meters.

2. Collect desired soil sample in accordance with appropriate TurnKey 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 TurnKey'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 TurnKey's Sample Labeling, Storage and Shipment Procedures FOP.

9. All remaining soil from soil sample collection activities shall be containerized in accordance with TurnKey'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, TurnKey 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.*

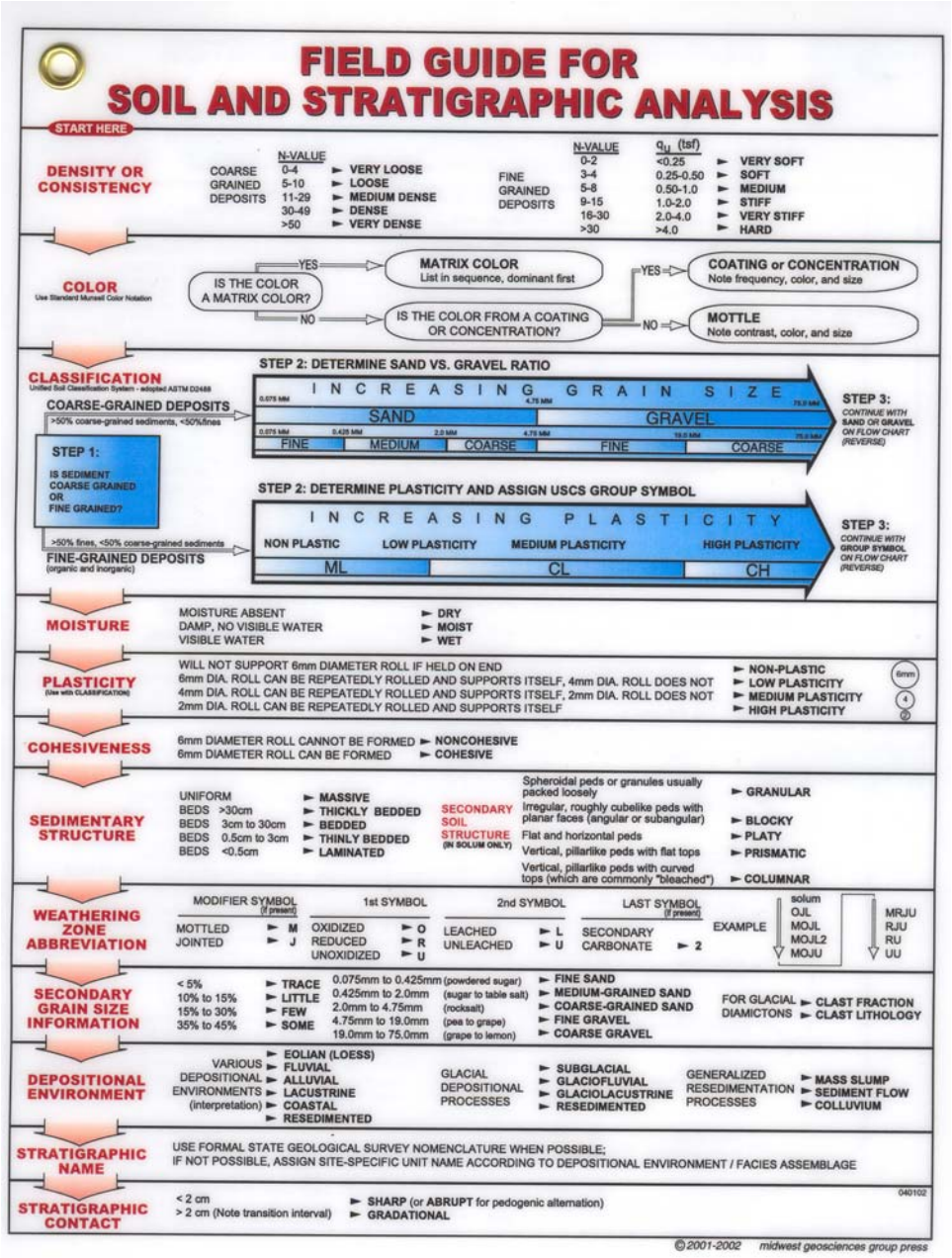
TurnKey FOPs:

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)

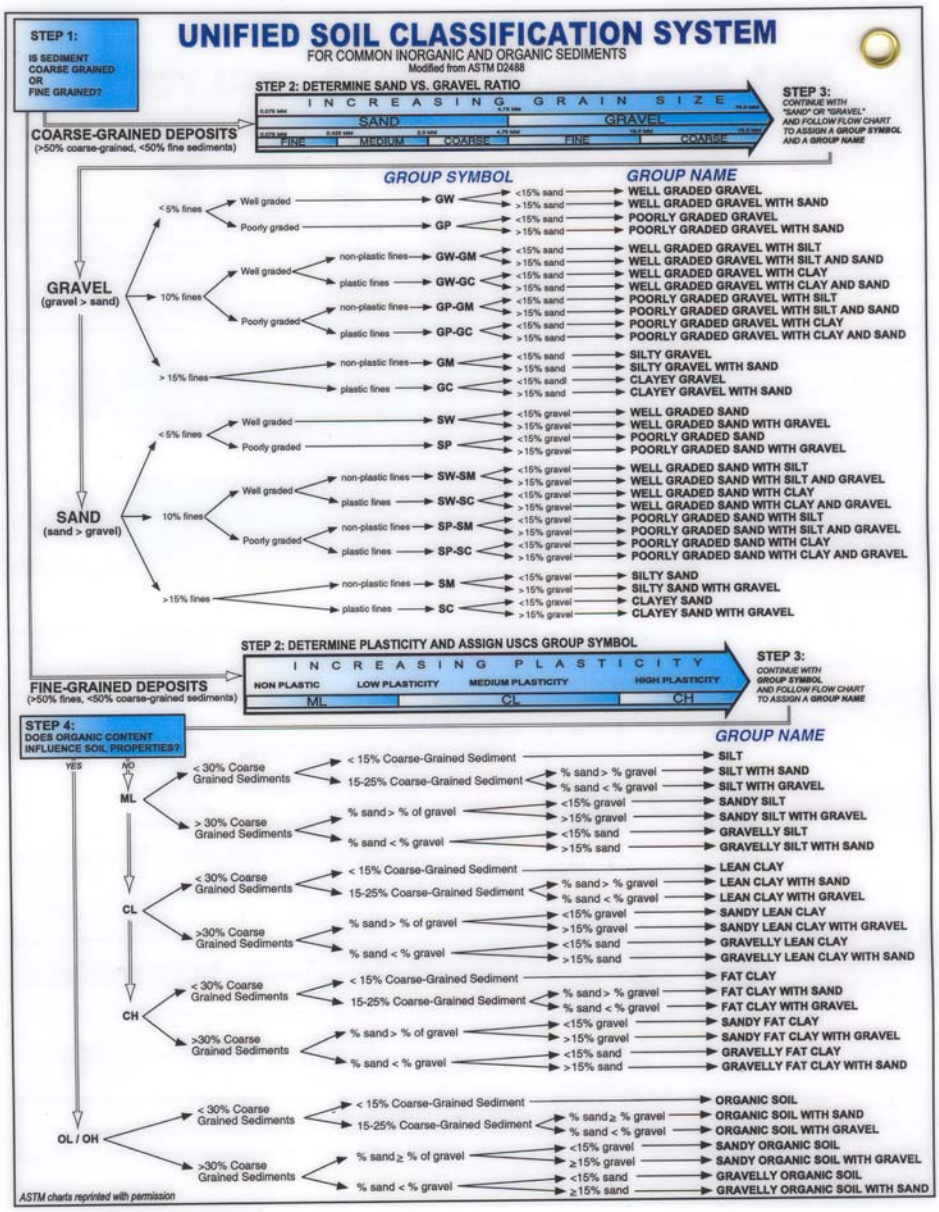


FIGURE 3

ILLUSTRATION OF PARTICLE SIZES

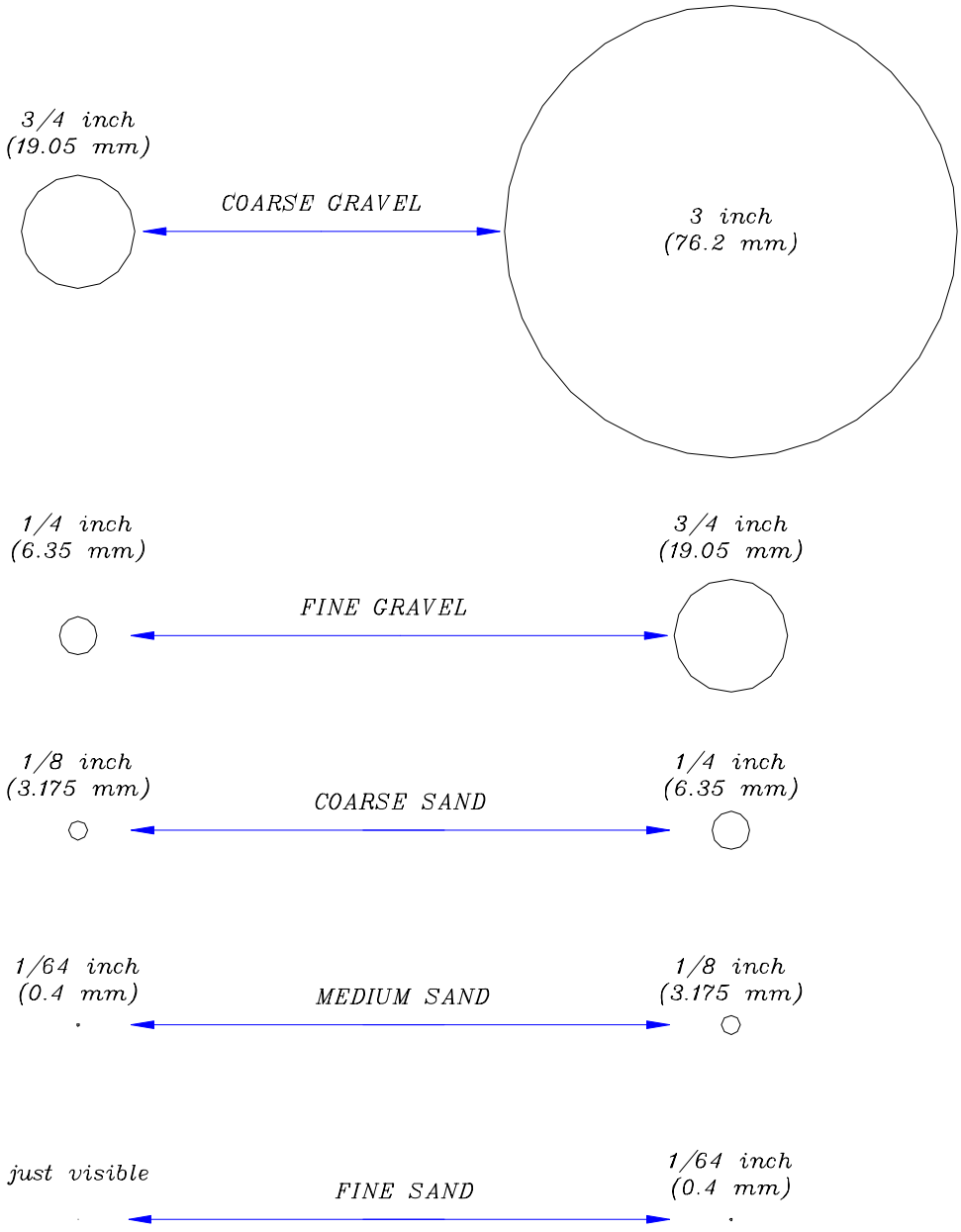


FIGURE 4

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:*

TurnKey Environmental Restoration, LLC
726 Exchange Street, Suite 624
Buffalo, NY
(716) 856-0635

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*

TurnKey Environmental Restoration, LLC

FIELD OPERATING PROCEDURES

Soil Sample Collection for VOC Analysis - EnCore Sampling

FOP 057.0

SOIL SAMPLE COLLECTION FOR VOC ANALYSIS – ENCORE SAMPLING

BACKGROUND AND PURPOSE

This procedure describes the methods for collecting soil samples for VOC analysis to ensure that the sample adequately represents the VOC concentrations in the soil in accordance with SW-846 Method 5035A (effective July 1, 2002). These compounds tend to volatilize from the soil after disturbance or introduction to the atmosphere. Therefore, care must be exercised to ensure that the sample collected is not altered during the collection and storage procedures. A variety of sampling options are allowed and Appendix A of Method 5035A provides details regarding the many options available for sample collection. The collection and preservation procedures are intended to prevent loss of VOCs during sample transport, handling and analysis.

Method 5035A is a method designed for volatile sample collection and analysis of soils and solid wastes for volatile organic compounds. This method is described in Update III to the Third Edition of SW-846, *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, and is required for all analytical methods using purge and trap techniques (8021, 8015B, and 8260B). Alternative protocols may be used in some states (including New York), however this method is strongly recommended.

The volatile analysis is performed over two ranges:

	GC/MS (µg/kg)	GC (µg/kg)
Low Level	5 – 300	Not Available
High Level	>250	>20

The different levels require different sampling techniques. The low level method can only handle samples within a specific concentration range (these samples CANNOT be diluted), therefore a high level sample MUST be collected to ensure that all the target analytes can be quantified.

Naturally occurring carbonates in some soils may cause effervescence (foaming) on contact with the sodium bisulfate (NaHSO4) solution used as preservative for the low-level preparation. This interference makes it necessary for the laboratory to use the high-level prep or an alternative technique for low level. Check with the NYSDEC to discuss acceptable options.

Typically, analytical laboratories will support the following options for the two levels:

Option	No. of Containers	Sample Size (g)	Holding Time (days)
A – Low Level EnCore™ Samplers	3*	5	14**
B – High Level EnCore™ Sampler	1*	5	14**
C – High Level Methanol vial w/syringe	1	10	14

* Additional EnCore™ Samplers are required for MS/MSD.

** The sample MUST be extracted and preserved in sodium bisulfate or methanol within 48 hours of collection.

NOTE: The EnCore™ Sampler is disposable – it can only be used ONCE. It CANNOT be cleaned and/or reused. The samplers MUST be used in conjunction with an EnCore™ T-handle.

SOIL SAMPLE COLLECTION FOR VOC ANALYSIS – ENCORE SAMPLING

PROCEDURE

The preferred method for collecting and storing a soil sample for VOC analysis is using the EnCore™ method. This field procedure is described in this FOP.

1. The sampling team should reference the manufacturers' directions prior to sample collection (attached).

    a. Ensure that the EnCore™ Sampler is present at the sampling location before collecting the sample from the borehole or surface sample location. The necessary parts of the EnCore™ Sampler will consist of three disposable coring bodies, three disposable caps, and a reusable stainless steel T-handle.

    b. Retrieve the sampling tool from the borehole or sample location.

    c. Expose a surface of the soil sample. For Shelby tube samples, this would require the extrusion of the sample. For split spoon samples, this would require the spoon be disassembled and opened. If liners are being used in conjunction with a split spoon or solid barrel sampler, this would require the removal of the liners from the sampler, so that the soil at the liner's end is exposed.

    d. Following the manufacturer's directions for the use of the EnCore™ Sampler (attached), collect three aliquots of soil from the exposed soil surface, using the three coring bodies. After the collection of each aliquot, cap and label each aliquot. The manufacturer's direction for use of the EnCore™ Sampler are attached

2. If the use of the EnCore™ Sampler is not possible due to soil texture (e.g. gravels) the sample must be field preserved with acid and methanol in accordance with SW-846 Method 5035A.

3. If the soil material is too coarse for sampling with the EnCore™ Sampler and contains excessive calcium carbonate material that reacts with the acid preservative, the sample will be retained in the brass or stainless steel liner of the split-spoon sampler or similar device. The ends of these liners will be covered with Teflon™ rounds, capped and sealed with tape.

4. Record all information associated with sample collection in the Project Field Book.

5. The samples will be labeled, stored and shipped in accordance with the TurnKey's Field Operating Procedure for Sample Labeling, Storage and Shipment Procedures.

ATTACHMENTS

EnCore™ Sampling Procedure (manufacturers instructions)

REFERENCES

TurnKey FOPs:
046 Sample Labeling, Storage and Shipment Procedures

ATTACHMENT

EnCore™ Sampling Procedure (manufacturers instructions)

Disposable En Core® Sampler

Sampling Procedures

Using The En Core® T-Handle

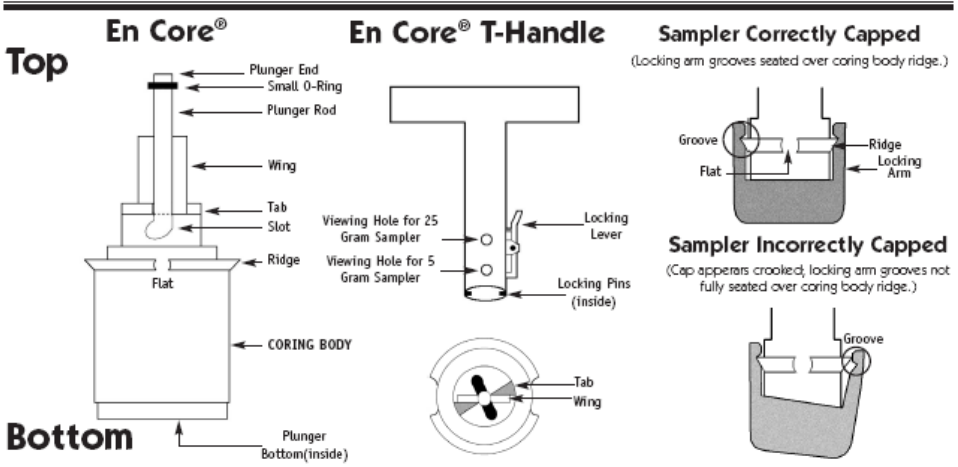
En Novative Technologies, Inc.
1241 Bellevue Street
Green Bay, WI 54302
Phone: 920-465-3960 • Fax: 920-465-3963
Toll Free: 888-411-0757
www.ennovativetech.com

NOTE:

1. En Core® Sampler is a SINGLE USE device. It cannot be cleaned and/or reused.

2. En Core® Sampler is designed to store soil. Do not use En Core Sampler to store solvent or free product!

3. En Core® Sampler must be used with En Core® T-Handle and/or En Core® Extrusion Tool exclusively. (These items are sold separately.)



BEFORE TAKING SAMPLE:

1. Hold **coring body** and push **plunger rod** down until **small o-ring** rests against **tabs**. This will assure that plunger moves freely.

2. Depress **locking lever** on En Core T-Handle. Place coring body, **plunger end first**, into open end of T-Handle, *aligning the (2) **slots** on the coring body with the (2) **locking pins** in the T-Handle*. Twist coring body clockwise to lock pins in slots. Check to ensure Sampler is locked in place. Sampler is ready for use.

TAKING SAMPLE:

3. Turn T-Handle with T-up and coring body down. This positions plunger bottom flush with bottom of coring body (ensure that plunger bottom is in position). Using T-Handle, push Sampler into soil until coring body is completely full. When full, small o-ring will be centered in T-Handle **viewing hole**. Remove Sampler from soil. Wipe excess soil from coring body exterior.

4. Cap coring body while it is still on T-handle. *Push* **cap** over **flat** area of **ridge** *and twist* to lock **cap** in place. **CAP MUST BE SEATED TO SEAL SAMPLER (see diagram).**

PREPARING SAMPLER FOR SHIPMENT:

5. Remove the capped Sampler by depressing locking lever on T-Handle while twisting and pulling Sampler from T-Handle.

6. Lock plunger by rotating extended plunger rod fully counter-clockwise until **wings** rest firmly against tabs (see plunger diagram).

7. Attach completed tear-off label (from En Core Sampler bag) to cap on coring body.

8. Return full En Core Sampler to zipper bag. Seal bag and put on ice.

Disposable En Core® Sampler

EXTRUSION PROCEDURES

USING THE En Core® EXTRUSION TOOL

CAUTION! Always use the Extrusion Tool to extrude soil from the En Core Sampler. If the Extrusion Tool is not used, the Sampler may fragment, causing injury.

1. Use a pliers to break locking arms on cap of En Core Sampler. Do not remove cap at this time. **(CAUTION: Broken edges will be sharp.)**

2. To attach En Core Sampler to En Core Extrusion Tool: Depress locking lever on Extrusion Tool and place Sampler, plunger end first, into open end of Extrusion Tool, aligning slots on coring body with pins in Extrusion Tool. Turn coring body clockwise until it locks into place. Release locking lever.

3. Rotate and gently push Extrusion Tool plunger knob clockwise until plunger slides over wings of coring body. (When properly positioned plunger will not rotate further.)

4. Hold Extrusion Tool with capped Sampler pointed upward so soil does not fall out when cap is removed. To release soil core, remove cap from Sampler and push down on plunger knob of En Core Extrusion Tool. Remove and properly dispose of En Core Sampler.

Warranty and Disclaimers

IMPORTANT: FAILURE TO USE THE EN CORE® SAMPLER IN COMPLIANCE WITH THE WRITTEN INSTRUCTIONS PROVIDED HEREIN VOIDS ALL EXPRESS AND IMPLIED WARRANTIES, INCLUDING WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

PRINCIPLE OF USE. The En Core Sampler Cartridge System is a volumetric sampling system designed to collect, store and deliver a soil sample. The En Core Sampler comes in two sizes for sample volumes of approximately 25 or 5 grams. There are four components: the cartridge with a movable plunger; a cap with two locking arms; a T-handle (purchased separately); and an extrusion handle (purchased separately). NOTE: The En Core Sampler is designed to store soil. It is not designed to store solvent or free product.

The soil is stored in a sealed headspace-free state. The seals are achieved by three special Viton® * o-rings, two located on the plunger and one on the cap of the Sampler. At no time and under no condition should these o-rings be removed or disturbed.

QUALITY CONTROL. The cartridge is sealed in an airtight package to prevent contamination prior to use. Due to the stringent quality control requirements associated with the use of this system, the disposable cartridge is designed to be used only once.

WARRANTY. En Novative Technologies, Inc. ("En Novative Technologies") warrants that the En Core Sampler shall perform consistent with the research conducted under En Novative Technologies' approval, within thirty (30) days from the date of delivery, provided that the Customer gives En Novative Technologies prompt notice of any defect or failure to perform and satisfactory proof thereof. THIS WARRANTY DOES NOT APPLY TO THE FOLLOWING, AS SOLELY DETERMINED BY EN NOVATIVE TECHNOLOGIES: (a) Damage caused by accident, abuse, mishandling or dropping; (b)Samplers that have been opened, taken apart or mishandled; (c)Samplers not used in accordance with the directions; and (d)Damages exceeding the cost of the sampler. Seller warrants that all En Core Samplers shall be free from defects in title. THE FOREGOING WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES, WHETHER ORAL, WRITTEN, EXPRESSED, IMPLIED OR STATUTORY, INCLUDING ANY INFORMATION PROVIDED BY SALES REPRESENTATIVES OR IN MARKETING LITERATURE. IMPLIED WARRANTIES OF FITNESS AND MERCHANTABILITY SHALL NOT APPLY. En Novative Technologies' warranty obligations and Customer's remedies, except as to title, are solely and exclusively as stated herein.

LIMITATION OF LIABILITY. IN NO EVENT SHALL EN NOVATIVE TECHNOLOGIES BE LIABLE FOR ANTICIPATED PROFITS, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES, INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF REVENUE, DOWN TIME, REMEDIATION ACTIVITIES, REMOBILIZATION OR RESAMPLING, COST OF CAPITAL, SERVICE INTERRUPTION OR FAILURE OF SUPPLY, LIABILITY OF CUSTOMER TO A THIRD PARTY, OR FOR LABOR, OVERHEAD, TRANSPORTATION, SUBSTITUTE SUPPLY SOURCES OR ANY OTHER EXPENSE, DAMAGE OR LOSS, INCLUDING PERSONAL INJURY OR PROPERTY DAMAGE. En Novative Technologies' liability on any claim of any kind shall be replacement of the En Core Sampler or refund of the purchase price. En Novative Technologies shall not be liable for penalties of any description whatsoever. In the event the En Core Sampler will be utilized by Customer on behalf of a third party, such third party shall not occupy the position of a third-party beneficiary of the obligation or warranty provided by En Novative Technologies, and no such third party shall have the right to enforce same. All claims must be brought within one (1) year of shipment, regardless of their nature.

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Green Bay, WI 54302
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The En Core™ Sampler is covered by One or More of the Following U.S. Patents: 5,343,771; 5,505,098; 5,517,868; 5,522,271. Other U.S. and Foreign Patents Pending.

* Viton® is a registered trademark of DuPont Dow Elastomers.

TurnKey Environmental Restoration, LLC

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 TurnKey's Field Operating Procedures or manufacturers recommendations for calibration of field meters.

4. Commence intrusive activities in accordance with specific TurnKey's 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 TurnKey'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 TurnKey'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 TurnKey'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 TurnKey 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

TurnKey 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*

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:

SAMPLE

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 its separate container). Match equipment used for constituents of concern to rinsate analyte. Note deionzied water lot # or distilled water can be substit info & date.*

MS/MSD/MSB *- Collect at a frequency of 1 per 20 samples of each matrix per day. Analyze for all those parameters analyzed for in 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 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.

SAMPLE

SURFACE AND SUBSURFACE SOIL SAMPLING PROCEDURES

REAL TIME AII

Date:	
Project Name:	
Project Number:	
Project Location:	
Client:	
Purpose of Air Monitoring:	

WEATHER CONDITIONS:

Time of Day:	A.M.
Ambient Air Temp.:	
Wind Direction:	
Wind Speed:	
Precipitation:	

Date	Personnel	Time	Air Monitoring Meter Measurement (Units)							Location
			PID (ppm)	LEL (%)	H2S (ppm)	O2 (%)	CO (ppm)	Particulates (mg/m^3)	Other	

SAMPLE

NOTE: SEE EQUIPMENT CALIBRATION LOG FOR DESCRIPTION OF EQUIPMENT TYPE.

Prepared By:

TurnKey Environmental Restoration, LLC

FIELD OPERATING PROCEDURES

Test Pit Excavation and Logging Procedures

FOP 065.1

TEST PIT EXCAVATION & LOGGING PROCEDURES

PURPOSE

This procedure describes the methods for completing test pits, trenches, and other excavations that may be performed to expose subsurface soils or materials. In most cases, these pits will be mechanically excavated, using a backhoe, trackhoe, or other equipment. Because pits and other excavations can represent a substantial physical hazard, it requires a particular focus on safety procedures. The Project Health and Safety Plan identifies practices related to excavation permits, entry, and control that must be incorporated into excavation activities.

EXCAVATION PROCEDURE

1. Review project objectives and the Project Health and Safety Plan (HASP).

2. Perform excavation equipment safety checks with the operator. Specific concerns should include, but not limited to, no leaking hydraulic lines, fire extinguisher on board of the excavation equipment, operator experience etc.

3. Conduct tailgate health and safety meeting with project team and excavation operator(s) by completing the Tailgate Safety Meeting Form (sample attached).

4. Calibrate air-monitoring equipment in accordance with the appropriate TurnKey's Field Operating Procedures or manufacturers recommendations for calibration of field meters.

5. Conduct air monitoring as required by the HASP and/or Project Work Plan. Record all results on the Real Time Air Monitoring Log (sample attached).

6. Mobilize the excavation equipment to the site and position over the required location.

7. Select excavation locations, which provide necessary information for achieving objectives. Check locations with owner/operator to ensure excavation

operations will not interfere with site operations, and select appropriate access routes.

8. Stake locations in the field and measure distance from locations to nearest landmarks. Survey location, if required.

9. Obtain clearances from appropriate utilities and, if buried waste/metallic objects are suspected, screen location with appropriate geophysical methods, as necessary.

10. Decontaminate excavation equipment in accordance with TurnKey's Drilling and Excavation Equipment Decontamination procedures.

11. Excavate pits. In uncontrolled areas, excavate only as many test pits as can be backfilled during the same day. Generally, allow equal time for excavation and backfilling. To the extent practicable, no pits should be left open overnight in an uncontrolled area. If sudden weather changes or other unforeseen events necessitate this, pits will be covered and/or barricaded and flagged with caution/hazard tape. These pits should be backfilled as soon as possible.

12. The TurnKey field geologist or experienced professional should determine the depth of excavation. The depth is generally limited by the safe reach of the selected equipment, but may also be limited by the stability of the excavated materials (i.e. wall stability).

13. Excavate the test pits in compliance with applicable safety regulations. In no case should a pit deeper than 4 feet be entered without first stabilizing the sidewalls by using forms, or by terracing or sloping (2:1 slope maximum) the sidewalls.

14. Excavated spoils must be placed no closer than 2 feet from the open excavation.

15. Collect soil samples from pit sidewalls in accordance with TurnKey's Surface and Subsurface Soil Sampling Procedures. If the test pit is greater than 4 feet in depth, it will not be entered for sampling. In this event, collect samples

using the backhoe bucket, then fill sample containers from the center of the bucket using the stainless steel sampling equipment (i.e., spoon, spade, trowel etc.) or drive a Shelby tube or EnCore™ sampler for VOCs.

16. Record excavation observations in the Project Field Book or Test Pit Excavation Log form (sample attached). Information recorded should include:

    - Physical dimension of the pit;
    - A scaled sketch of one side of the pit showing any lithologic contacts, zones of groundwater seepage, other special features (jointing, boulders, cobbles, zones of contamination, color abnormalities, etc.)
    - General information such as project number, pit designation number, depth, date, name of responsible professional (i.e., geologist), type of excavating equipment utilized, time of excavation and backfilling, method of collecting samples and amount of sample collected (if applicable);
    - Rate of groundwater inflow, depth to groundwater and time of measurement; and
    - Unified Soil Classification System (USCS) designation of each distinctive unit.

17. Photograph each excavation, highlighting unique or important features. Use a ruler or other suitable item for scale. Include a label with the pit designation so the developed picture will be labeled.

18. Backfill pit to match the existing grade compacting in 2 to 3 foot lifts. Since the excavated material should be cover soil, the excess soil will be placed back into the hole. The TurnKey Field Team Leader will provide direction on whether excavated soils may be used as fill, or these materials are to be containerized as investigation derived waste.

ATTACHMENTS

Tailgate Safety Meeting Form (sample)
Real Time Air Monitoring Log (sample)
Test Pit Excavation Log (sample)

REFERENCES

TurnKey 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*
018 *Drilling and Excavation Equipment Decontamination*
063 *Surface and Subsurface Soil Sampling Procedures*

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:

SAMPLE

TEST PIT EXCAVATION & LOGGING PROCEDURES

REAL TIME AII

Date:	
Project Name:	
Project Number:	
Project Location:	
Client:	
Purpose of Air Monitoring:	

WEATHER CONDITIONS:

Time of Day:	A.M.
Ambient Air Temp.:	
Wind Direction:	
Wind Speed:	
Precipitation:	

Date	Personnel	Time	Air Monitoring Meter Measurement (Units)							Location
			PID (ppm)	LEL (%)	H2S (ppm)	O2 (%)	CO (ppm)	Particulates (mg/m^3)	Other	

SAMPLE

NOTE: SEE EQUIPMENT CALIBRATION LOG FOR DESCRIPTION OF EQUIPMENT TYPE.

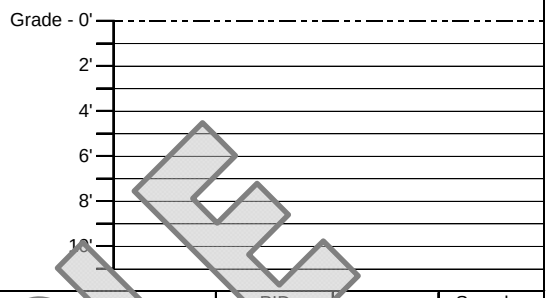
Prepared By:

TEST PIT EXCAVATION LOG

Project:	TEST PIT I.D.:
Project No.:	Excavation Date:
Client:	Excavation Method:
Location:	Logged / Checked By:

Test Pit Location: *NOT TO SCALE*

Test Pit Cross Section:



TIME		
Start:	Length:	(approx.)
End:	Width:	(approx.)
	Depth:	(approx.)

Depth (fbgs)	USCS Symbol & Soil Description	PID Scan (ppm)	Photos Y / N	Samples Collected (fbgs)

SAMPLE

COMMENTS:			
GROUNDWATER ENCOUNTERED:	yes	no	If yes, depth to GW:
VISUAL IMPACTS:	yes	no	Describe:
OLFACTORY OBSERVATIONS:	yes	no	Describe:
NON-NATIVE FILL ENCOUNTERED:	yes	no	
OTHER OBSERVATIONS:	yes	no	Describe:
SAMPLES COLLECTED:	yes	no	Sample I.D.:
			Sample I.D.:
			Sample I.D.:

TurnKey Environmental Restoration, LLC

Field Operating Procedures

Well/Piezometer Construction Materials and Design

FOP 070.0

WELL/PIEZOMETER CONSTRUCTION MATERIALS AND DESIGN

PURPOSE

This guideline presents construction materials and design requirements for monitoring well/piezometer installations in accordance with NYSDEC recommended specifications (6NYCRR Part 360).

CONSTRUCTION MATERIALS

1. Well Screen and Riser – Only new flush threaded screen and riser materials will be used. Screen and riser materials, well dimensions, screen slot opening size and length to be determined based on formation characteristics and suspect water quality or as specified by the project geologist/hydrogeologist. A vented cap or J-plug should be placed over the riser. A V-slot cut in the riser or permanent marking, both placed on the north side of the riser, will act as a monitoring reference point.

2. Bentonite Well Seal – The bentonite should be from a commercial source free of chemical additives (granular or powdered for grout and pelletized for seal).

3. Concrete – Low heat of hydration concrete should be used for grout and cementing protective casing if well construction materials are composed of PVC (ASTM Type II or Type IV Portland Cement).

4. Water – Water should be from a potable source of known chemistry and free of chemical constituents which may compromise integrity of installation.

5. Grout – Mixture of bentonite, cement and water in accordance with the following specifications. Premix bentonite and water prior to adding cement.

   Grout Slurry Composition (% Weight)

1.5 to 3.0%	-	Bentonite (Quick Gel)
40 to 60 %	-	Cement (Portland Type I)
40 to 60 %	-	Potable Water

6. Filter Pack – The filter pack should consist of clean, inert, siliceous, rounded to subrounded particles. Filter pack particle size is dependent on the formation and the slot size of the screen.

   A secondary filter about 6-inches thick may be placed between filter pack and the bentonite seal and potentially between the bentonite seal and the grout backfill, to minimize grout penetration of the seal. A uniformly graded fine sand (100% passing No. 30 sieve) should be used as a secondary filter.

7. Protective Casing, Locking Cap and Lock – Protective casing with a lockable cap should be cemented in place around the riser. The inside diameter of the protective casing should be a minimum of 2-inches larger than the outside diameter of the well riser. The annular space between the casing and the riser should be filled with pea gravel or coarse sand. A weep hole should be drilled near the base of the casing to facilitate drainage of standing water. If more than one well is installed, all locks should be keyed alike.

8. A sample of all cement, bentonite and sand used in well construction should be saved in a labeled, Teflon-sealed, precleaned glass jar.

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.

Sara, M. N., *Proposed Recommended Practice for Design and Installation of Ground Water Monitoring Wells in Aquifers: ASTM Subcommittee D18.21.*

TurnKey Environmental Restoration, LLC

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, 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).

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 perimeter locations for 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.

- 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, TurnKey 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

TurnKey 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

FOP 073.2

REAL-TIME AIR MONITORING DURING INTRUSIVE ACTIVITIES PROCEDURE

REAL TIME AII

Date:	
Project Name:	
Project Number:	
Project Location:	
Client:	
Purpose of Air Monitoring:	

WEATHER CONDITIONS:

Time of Day:	A.M.
Ambient Air Temp.:	
Wind Direction:	
Wind Speed:	
Precipitation:	

Date	Personnel	Time	Air Monitoring Meter Measurement (Units)							Location
			PID (ppm)	LEL (%)	H2S (ppm)	O2 (%)	CO (ppm)	Particulates (mg/m^3)	Other	

SAMPLE

NOTE: SEE EQUIPMENT CALIBRATION LOG FOR DESCRIPTION OF EQUIPMENT TYPE.

Prepared By:

TurnKey Environmental Restoration, LLC

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

TurnKey Environmental Restoration, LLC

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 TurnKey'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 TurnKey'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 TurnKey'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 TurnKey'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 TurnKey's Field Operating Procedure for Abandonment of Borehole. Boreholes to be used as temporary wells should be completed in accordance with TurnKey'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 TurnKey'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 TurnKey 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 TurnKey field supervisor.

ATTACHMENTS

Drilling Safety Checklist (sample)
Tailgate Safety Meeting Form (sample)

REFERENCES

TurnKey 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

DRILLING SAFETY CHECKLIST

Project:	Date:
Project No.:	Drilling Company:
Client:	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" a[illegible] or missing sections?		
Cables are terminated at the working end with a proper eye splice[illegible] swaged Coupling or using cable clamps?		
Cable clamps are installed with the saddle on the live or [illegible]de? Clamp[illegible] should not be alternated and should be of the corre[illegible]an[illegible]ber for the cable size to which it is installed. Clamps are co[illegible] parts		
Hooks installed on hoist cables are the safe[illegible]y ty[illegible]h a[illegible]tiona[illegible] prevent accidental separation?		
Safety latches are functional and complete[illegible] e[illegible]roat of the hook and have positive action to close th[illegible]at [illegible]hen [illegible]ally displaced for connecting or disconnecting a loa[illegible]		
Drive shafts, belts, chain d[illegible]es and [illegible]ts [illegible]l be guarded to prevent accidental insertion[illegible]ls and [illegible]		
Outriggers shall be extended [illegible] whe[illegible]r th[illegible]oom is raised off its cradle. Hydraulic o[illegible]iggers m[illegible]ma[illegible]res[illegible]to continuously support and stabilize the[illegible]n whi[illegible]		
Outriggers shall [illegible]pro[illegible]upp[illegible]n the ground surface to prevent settling into the so[illegible]		
Controls are properly labeled [illegible]ha[illegible] freedom of movement? Controls should not be blocked or lo[illegible]d i[illegible]action position.		
Safeties on any device shall n[illegible] 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?		

SAMPLE

DRILLING SAFETY CHECKLIST

Project: Date:

ITEMS TO CHECK	OK	ACTION NEEDED
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?		
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 with[out] [a] restraining device and must attach the device in a manner to restric[t] [to] less than 6 feet.		
A fire extinguisher of appropriate size shall be immediately [a]vailable to the crew. The drill crew shall have received annual training o[n] [p]roper use of the fire extinguisher.		
29 CFR 1910.333 © (3) Except where electric[al] [e]quipment lines have been de-energized and visibly g[r]ounded at [t]he point of work, all ri[g]ht shall be proximate to, under, by, or near power [li]nes only [in] accordance wi[th] the following: .333 © (3) (ii) 50 kV or less[,] [t]he minimum [a]pproach distance is 10 feet For 50 kV or over - 10ft. Plus [an] [a]dditional [1] foot **TurnKey Policy: M[a]intain 20 fe[et]**		
29 CFR 1910.333 © (3) (iii) W[h]ere [a] crane is in [a] position where it [c]an boom in the down position, clearance from energ[i]zed [p]arts and lines will be maintained as follows: Less tha[n] [1]0 feet 50 to 36[5] - 10 f[eet] 365 to 72[0]		

SAMPLE

Name: (printed)

Signed: Date:

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:			B	C	D
Activity:			B	C	D
Activity:		A	B	C	D
Activity:		A	B	C	D
Activity:		A	B	C	D

New Equipment:

Other Safety Topic (s) ve fauna)

Eating, drink co products is prohibited in the Exclusion Zone (EZ)

ATTENDEES

Name Printed	Signatures

Meeting conducted by:

SAMPLE

TurnKey Environmental Restoration, LLC

FIELD OPERATING PROCEDURES

Stockpile Sampling Procedures for Chemical Analysis

FOP 079.0

STOCKPILE SAMPLING PROCEDURES FOR CHEMICAL ANALYSIS

PURPOSE

This guideline presents a method for collecting representative soil samples from stockpiled borrow source material for chemical analysis.

GENERAL

In general, off-site soil that is brought to a Site for use as supplemental fill is subject to Quality Assurance sampling and analysis. If QA is required, all off-site soil proposed for use as Site backfill shall be documented by the subcontractor in writing to have originated from locations having no evidence of disposal or release of hazardous, toxic or radioactive substances, wastes or petroleum products. If the subcontractor designates a source as "virgin" soil, it shall be further documented in writing to be native soil material having not supported any known past industrial or commercial development or agricultural use. Borrow soils can be used as backfill once concentrations are confirmed to meet project designated criteria for the Constituents of Primary Concern (COPCs) and NYSDEC TAGM HWR-94-4046 recommended soil cleanup objectives (SCOs) or NYSDEC 6NYCRR Part 375 SCOs.

Sample collection equipment will include stainless steel mixing bowls, stainless steel mixing spoons, and a stainless steel hand auger with extension rods or a stainless steel spade or equivalent. It may be necessary to use a backhoe or drilling rig to facilitate sample collection.

FOP 079.0

STOCKPILE SAMPLING PROCEDURES FOR CHEMICAL ANALYSIS

SAMPLING PLAN

1. Virgin Sources – Virgin borrow sources will be confirmed acceptable for use as site backfill through collection of a single composite soil sample representative of the borrow pit or stockpile.

2. Non-Virgin Sources – Prior to sampling, determine the amount of soil that will be sampled. The soil will be tested via collection of one composite sample per 250 cubic yards of material from each source area. If more than 1,000 cubic yards of soils are excavated from a given off-site source area and all samples of the first 1,000 cubic yards meet project designated criteria, the sample collection frequency may be reduced to one composite for each additional 1,000 cubic yards of soils from the same source area, up to 5,000 cubic yards. For borrow sources greater than 5,000 cubic yards, sampling frequency may be reduced to one sample per 5,000 cubic yards, providing all earlier samples meet project designated criteria. Sampling procedure for non-virgin sources is described in the next section.

SAMPLE COLLECTION AND HANDLING

The following procedure will be used to collect representative soil samples from a non-virgin soil stockpile.

1. Using a stainless steel spade (or hand auger), a backhoe, or drilling rig, penetrate the pile to a depth of approximately 2 to 3 feet and collect four (4) representative grab samples of approximate equal volume from the top, middle, and bottom.

2. Transfer each grab into a small stainless steel mixing bowl.

3. **VOC Analysis:** Using a clean stainless steel spoon, transfer equal amounts from each small mixing bowl into a laboratory-supplied, 4 oz. VOC sample jar. This should be performed by randomly transferring several small aliquots from each bowl, taking care to minimize disturbance of the soil.

4. **Other COPCs:** Transfer equal aliquots from each small bowl into a large mixing bowl and homogenize the sample. Fill the remaining laboratory-supplied jars with the homogenized soil for all other project required COPCs (i.e., SVOCs, PCBs, Pesticides, Herbicides, inorganics, etc.).

5. Label each set of jars with the following information:
   - Project and site name
   - Sample Code
   - Project Number
   - Date/Time
   - Sample type (soil composite or grab)
   - Sampler's initials
   - Sample Preservation
   - Required analysis

   The sample code will consist of a unique, alphanumeric identification code keyed to the sampling location. Identify the sampling location on a field sketch.

6. Record all information associated with sample collection in the Project Field Book.

7. Label, store, and ship the samples in accordance with the Benchmark Field Operating Procedure for Sample Labeling, Storage and Shipment Procedures.

8. Clean the sampling and mixing equipment with Alconox and deionized water and repeat steps 1 through 7 for the remaining samples.

REFERENCES

Benchmark FOPs:
046 Sample Labeling, Storage and Shipment Procedures

TurnKey Environmental Restoration, LLC

FIELD OPERATING PROCEDURES

Stockpile & Borrow Source Sampling Procedures for Physical Analysis

FOP 080.0

STOCKPILE & BORROW SOURCE SAMPLING PROCEDURES FOR PHYSICAL ANALYSIS

PURPOSE

This guideline presents a method for collecting representative soil samples from stockpiled borrow source material for physical analysis.

GENERAL

Generally, one of two methods will be utilized to collect soil samples for analysis. One method is to collect the samples by digging a series of representative test pits at the borrow source area and obtaining samples from those test pits. The other method involves collecting samples from representative stockpiles (normally after the material has been mechanically screened). Both procedures are discussed within this method.

Sample collection equipment will include stainless steel mixing bowls, stainless steel mixing spoons, and a stainless steel hand auger with extension rods or a stainless steel spade or equivalent. It may be necessary to use a backhoe or drilling rig to facilitate sample collection.

STOCKPILED SOIL SAMPLING METHOD

As shown in the attached Figure 1, twelve (12) samples of approximate equal volume should be collected from the top, middle and bottom of each 1000 CY stockpile by CQA personnel and composited in the field to give one representative aliquot per 1000 CY.

Stockpile Sampling Procedure

1. Using a shovel or backhoe, penetrate the pile to a depth of about two to three feet.
2. Collect a sample using the shovel.

3. Transfer the sample to a specially prepared mixing area.
4. Repeat Steps 1 through 3 at each 1,000 CY stockpile.
5. Mix subsamples using shovel into one homogenous mass and place in a properly labeled 5-gallon bucket. Fill each bucket completely and cover.
6. Attach a label to each container and record location referencing the stockpile identification number. The label may be made with permanent marker on the side (not top) of the container or using adhesive-back paper labels affixed to the side of the container. At a minimum, the labels should be identified with the following information:
    - Project Name
    - Sample number.
    - Initials of CQA inspector or sample collection personnel.
    - Date of collection.
    - Location of collection (i.e. stockpile I.D.)
7. Return remaining contents of composite sample to stockpile.
8. Deliver the samples to the laboratory for analysis as soon as possible.
9. All information pertinent to each sampling event should be recorded by sampling personnel in the field at the time of sample collection. Each report should correspond to each stockpile and will contain the following information:
    - Project Name
    - Sample number or numbers collected
    - Field observations.
    - Climatologic conditions.
    - Date and time of collection.
    - Approximate location of test pit.
    - Name of person who collected sample.

BORROW AREA TEST PIT SAMPLING METHOD

Prior to obtaining representative soil samples, test holes should be excavated at the borrow area to determine the actual depth and lateral extent of the borrow source soil material. A base line should then be established and a grid system staked in the field. Five samples

should be collected at equidistant locations for each 5000 cubic yards (CY) of soil designated for use in the borrow areas (at approximately mid-depth).

Borrow Area Sampling Procedure

1. Using a shovel, collect a representative sample at approximately mid-depth at each of the sampling locations representing 1000 CY of the proposed excavation area.
2. Transfer each sample into a labeled separate 5-gallon bucket. Fill each bucket completely and cover.
3. Attach a label to each container and record location referencing the established grid system in the borrow area. The label may be made with permanent marker on the side (not top) of the container or using adhesive-back paper labels affixed to the side of the container. At a minimum, the labels should be identified with the following information:
    - Project Name
    - Sample number.
    - Initials of CQA inspector or sample collection personnel.
    - Date of collection.
    - Location of collection (i.e. location of borrow area grid system location)
4. Deliver the samples to the laboratory for analysis as soon as possible.
5. All information pertinent to each sampling event should be recorded by sampling personnel in the field at the time of sample collection. Each report should correspond to each test pit and will contain the following information:
    - Project Name
    - Sample number or numbers collected
    - Field observations.
    - Climatologic conditions.
    - Date and time of collection.
    - Approximate location of test pit.
    - Name of person who collected sample.

ATTACHMENTS

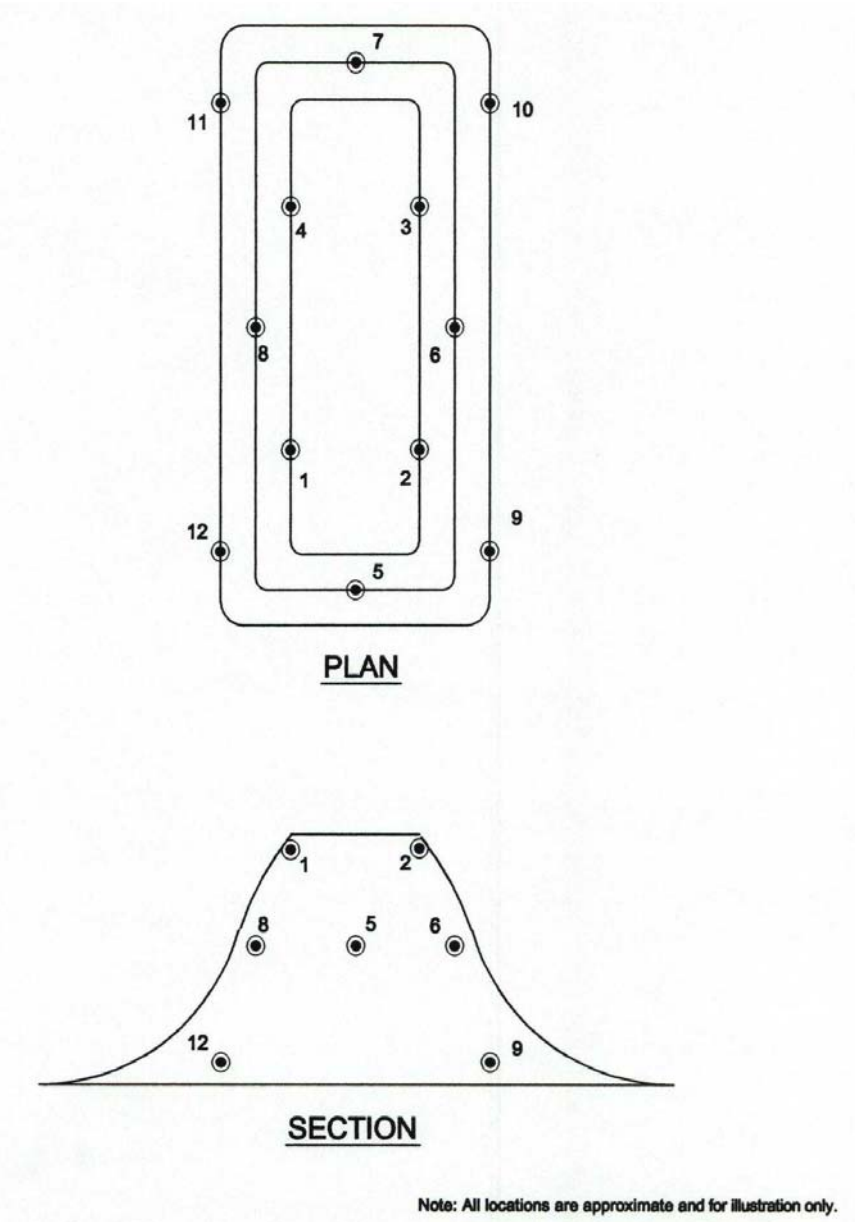
Figure 1; Stockpile Sampling Methodology

REFERENCES

None

FIGURE 4

1,000 CY STOCKPILE SAMPLING METHODOLOGY



TurnKey Environmental Restoration, LLC

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

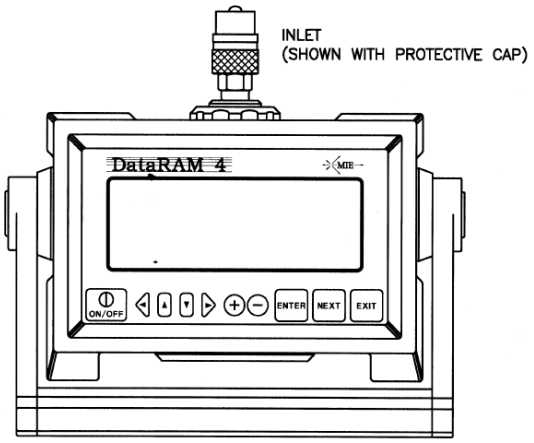


FIGURE 1. FRONT–PANEL VIEW OF DataRAM

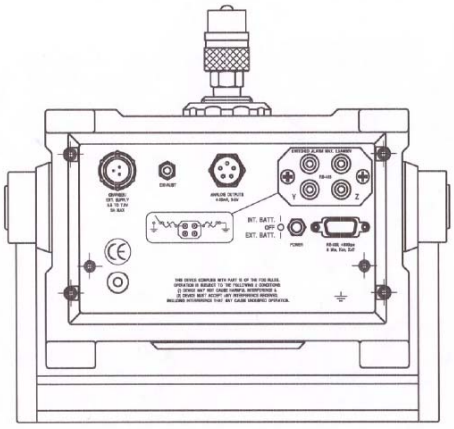


FIGURE 2. BACK–PANEL VIEW OF DataRAM

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

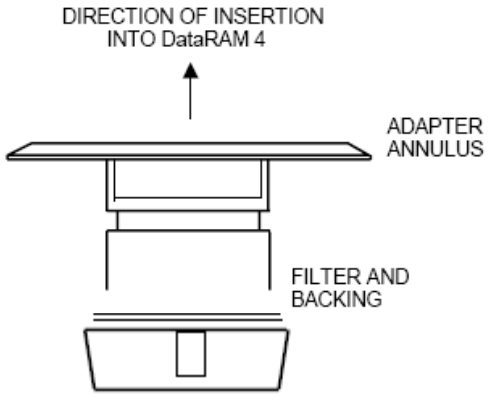
The DataRAM 4 is shipped from the factory with the HEPA filter cartridge installed. This cartridge can be identified by its metallic cover. Remove this cartridge. Clean the internal black rubber gasket against which the cartridge is normally compressed. Install new HEPA-type cartridge (MIE part no. MSA-95302) 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

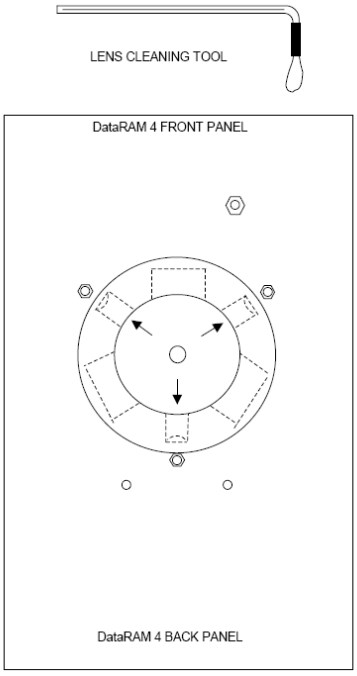
Although the DataRAM 4 incorporates filtered air shielding of the critical optical sensing surfaces, continued sampling of airborne particles at high concentrations may result in gradual build-up of contamination on those interior surfaces of the sensing chamber components. This may cause an excessively 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

TurnKey Environmental Restoration, LLC

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 TurnKey'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

TurnKey FOPs:
040 Non-disposable and Non-dedicated Sampling Equipment Decontamination

TurnKey Environmental Restoration, LLC

FIELD OPERATING PROCEDURES

Underground Piping Decommissioning Procedures

APPENDIX F

MASTER EROSION CONTROL PLAN (MECP)

MASTER EROSION CONTROL PLAN

8 ST. LOUIS PLACE SITE
BUFFALO, NEW YORK

November 2019 0395-018-001

Prepared for:
Main St. Louis, L.P.

Prepared By:

TurnKey Environmental Restoration, LLC
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In Association With:

Benchmark Environmental Engineering & Science, PLLC
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Figure 1 Site Location and Vicinity Map
Figure 2 Site Plan/Erosion Control

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F-1 Erosion Control Details
F-2 Inspection and Maintenance Report Form

1.0 INTRODUCTION

1.1 Background

The New York State Brownfield Cleanup Program (BCP) Applicant, Main St. Louis, L.P., acting as a Volunteer, has elected to pursue cleanup and redevelopment of the Site under the BCP. The BCP work will be completed by TurnKey Environmental Restoration, LLC in association with Benchmark Environmental Engineering & Science, PLLC (collectively, TurnKey-Benchmark), on behalf of the Applicant. The work will be completed in accordance with NYSDEC DER-10 guidelines.

The Site consisting of one parcel (SBL 111.22-8-7.1) totaling ±0.23-acres is located in a highly developed commercial and residential use area in the City of Buffalo, Erie County, New York (see Figures 1 and 2).

The Site is currently used as a parking lot. Based on historic records and previous investigation reports, multiple former buildings have been identified in connection with the Site.

Previous environmental investigations completed at the Site have identified elevated levels of polycyclic aromatic hydrocarbons (PAHs) and metals at concentrations exceeding 6NYCRR Part 375 Unrestricted Use Soil Cleanup Objectives (USCOs) and Restricted-Residential Use (RRSCOs).

1.2 Purpose and Scope

This Master Erosion Control Plan (MECP) was prepared to provide guidance during remedial action activities since erosion control will be a critical component of preventing the potential migration of contaminants off-site during excavation activities.

2.0 POTENTIAL EROSION AND SEDIMENT CONTROL CONCERNS

Potential areas and items of concern during remedial action activities may include the following:

- Remediated areas or off-site properties adjacent to unremediated parcels need protection so they do not become impacted by Site operations.
- Runoff from soil stockpiles, if any, will require erosion controls.
- Surface slopes need to be minimized as much as practical to control sediment transfer.
- Soil/fill excavated will require proper handling and disposal.

3.0 EROSION AND SEDIMENT CONTROL MEASURES

3.1 Background

Standard soil conservation practices need to be incorporated into remedial activities to mitigate soil erosion damage, off-site sediment migration, and water pollution from erosion. These practices combine vegetative and structural measures, many of which will be permanent in nature and become part of the completed project (i.e., grading). Other measures will be temporary and serve only during the construction stage. Selected erosion and sediment control measures will meet the following criteria:

- Incorporate temporary and permanent erosion control measures.
- Remove sediment from sediment-laden storm water before it leaves the Site.

3.2 Temporary Measures

Temporary erosion and sedimentation control measures and facilities will be used during construction. These temporary measures will be installed and maintained until they are either no longer needed or until such time as permanent measures are installed and become effective. Erosion and sediment controls shall be installed in accordance with the standards and specifications presented in Attachment F-1. At a minimum, the following temporary measures will be used:

- Stabilized Construction Entrance
- Tubular silt socks
- Cautious placement, compaction and grading of stockpiles

3.2.1 Stabilized Construction Entrance

Prior to initiation of construction activities, a stabilized temporary construction entrance will be used at the eastern boundary of the Site, allowing trucks to access the Site from St. Louis Place.

3.2.2 Silt Socks

Remedial activities may result in surface water flow to drainage ditches and adjacent properties. Tubular silt socks will be the primary sediment control measure used in these areas. Prior to extensive soil excavation or grading activities, silt socks will be installed along the perimeter of all construction areas and along the construction entrance. The orientation of the silt sock will be adjusted as necessary as the work proceeds to accommodate changing site conditions.

If necessary, intermediate socks will be used upgradient of the perimeter socks to help lower surface water runoff velocities and reduce the volume of sediment to perimeter socks. Stockpiles will also be surrounded with silt socks.

As sediment collects, the silt socks will be cleaned as necessary to maintain their integrity. Removed sediment will be used elsewhere on-site as general fill. All perimeter silt socks will remain in place until construction activities in an area are completed and vegetative cover has been established.

3.2.3 Cautious Placement of Stockpiles

Excavation activities may produce stockpiles of soil and subgrade soil/fill materials. Careful placement and construction of stockpiles will be required to control erosion. Stockpiles will be placed no closer than 50 feet from storm water inlets and parcel boundaries. Additionally, stockpiles will be graded and compacted as necessary for positive surface water runoff and dust control.

3.3 Permanent Control Measures during Site Redevelopment

Permanent erosion and sedimentation control measures and structures will be installed as soon as practical during construction for long-term erosion protection. Examples of permanent erosion control measures could include:

- Minimizing the potential contact with, and migration of, subsurface soil/fill through the placement of a "clean" slag cover system in all areas not covered with structures, roads, parking areas, sidewalks, etc.
- Planting and maintaining vegetation.
- Limiting runoff flow velocities to the extent practical.

4.0 CONSTRUCTION MANAGEMENT PRACTICES

4.1 General

The following general construction practices should be evaluated for erosion and sedimentation control purposes during remedial activities:

- Clearing and grading only as much area as is necessary to accommodate the construction needs to minimize disturbance of areas subject to erosion (i.e., phasing the work).
- Covering exposed or disturbed areas of the Site as quickly as practical.
- Installing erosion and sediment control measures before disturbing the Site subgrade.
- Minimizing both on-site and off-site tracking of soil by vehicles by using routine entry/exit routes.

4.2 Monitoring, Inspection and Maintenance

All erosion and sedimentation controls described in this Plan will be inspected by a qualified representative of the Site Owner within 24 hours of a heavy rainfall event (defined as more than 0.5 inches of precipitation in a 24-hour period) and repaired or modified as necessary to effectively control erosion or turbidity problems. Inspections should include areas under construction, stockpile areas, erosion control devices (silt socks) and locations where vehicles enter and leave the site. Routine inspections of the entire Site should also be made on a weekly basis during development.

If inspections indicate problems, corrective measures should be implemented within 24 hours. A report summarizing the scope of the inspection, name of the inspector, date, observations made, and a description of the corrective actions taken should be completed. Attachment F-2 includes the Inspection and Maintenance Report Form.

4.2.1 Implementation

Erosion controls and features shall, at all times, be properly constructed, operated, and maintained in accordance with regulatory requirements and good engineering and construction practices. Erosion control measures and activities will be conducted in accordance with currently accepted Best Management Practices (BMPs).

Erosion control monitoring, inspection, and maintenance are an integral part of Site storm water and erosion control. The key elements of the monitoring effort include the following:

- Site inspections and maintenance
- BMPs monitoring
- Recordkeeping
- Review and modifications
- Certification of compliance

4.2.2 Site Inspections and Maintenance Practices

The temporary erosion control features will be maintained until no longer needed or permanent erosion control methods are installed. Site inspections are required twice every seven days or within 24 hours of a rainfall of 0.5 inches or greater. All disturbed areas, areas for material storage, locations where vehicles enter or exit the site, and all of the erosion and sediment controls identified as part of this Plan must be inspected. Controls must be in good operating condition until the affected area they protect has been completely stabilized and the construction activity is complete. If a repair is necessary, it must be completed within seven days of receipt of a report or notice, if practical. Inspection for specific erosion and sediment controls will include the following:

- The silt socks will be inspected twice weekly and within 24 hours of a 0.5 inch or greater storm event to confirm they are properly located, and the fabric is in good condition.
- The construction entrance will be inspected for sediment tracked on the road and to ensure all traffic uses the entrance when leaving the Site.
- Temporary and permanent seeding and planting will be inspected for bare spots, washouts, and other potential erosion control problems.
- The Contractor shall designate individual(s) that will be responsible for erosion control, maintenance, and repair activities. The designated individual will also be responsible for inspecting the site and filling out the inspection and maintenance report.
- Personnel selected for inspection and maintenance responsibilities will receive training as directed by the Engineer. They will be trained in all the inspection and maintenance practices necessary for keeping the erosion and sediment controls used on-site in good working order.

The individual inspecting the Site must record any damages or deficiencies on the Inspection and Maintenance Report Form in Attachment F-2. This form can be used to request maintenance and repair and to document inspection and maintenance activities. Damages or deficiencies must be corrected as soon as possible after the inspection. Any changes that may be required to correct deficiencies in this Plan should also be made as soon as possible, but in no case later than seven days after the inspection.

4.2.3 Recordkeeping

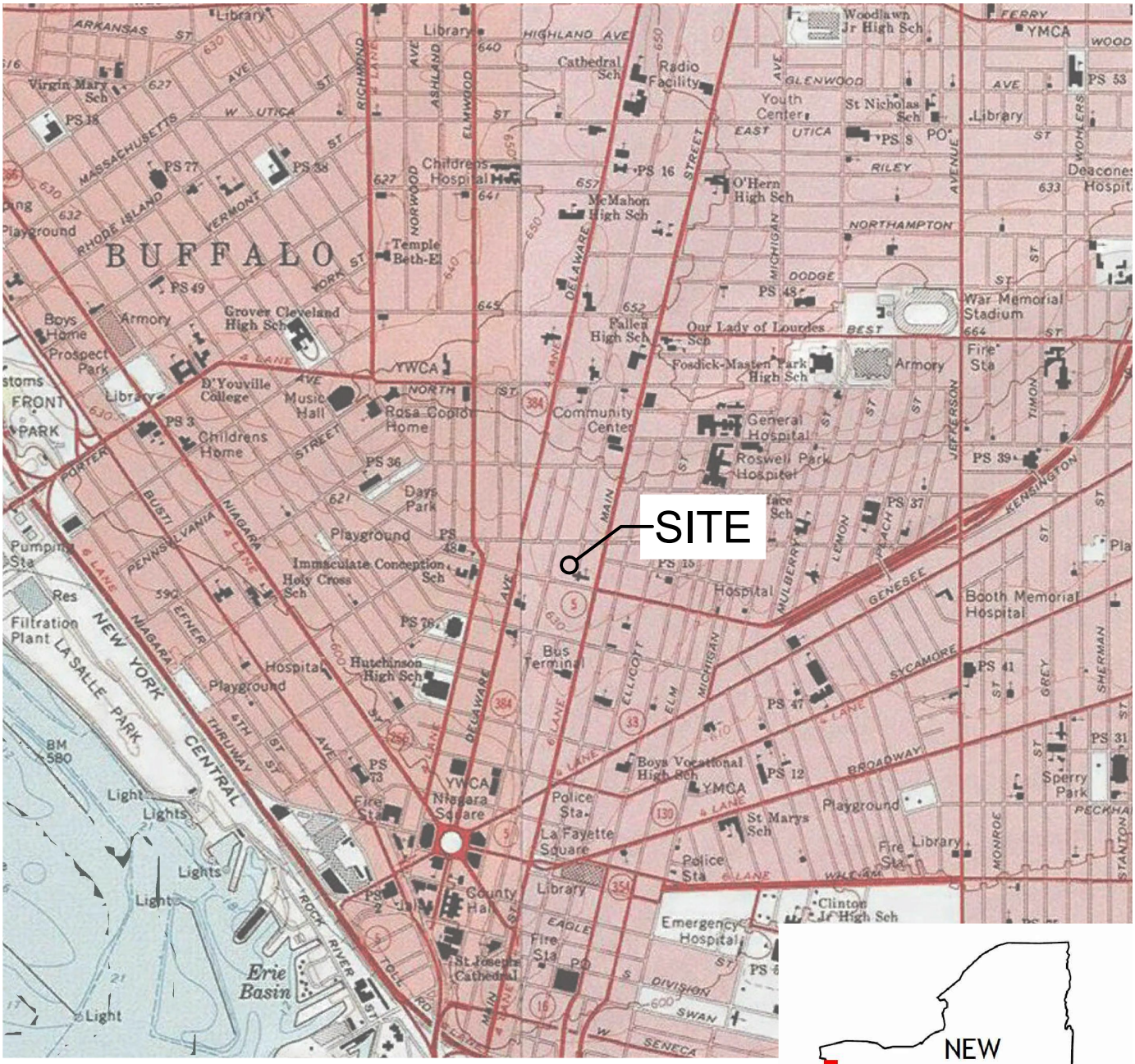
A copy of the MECP and inspection and maintenance records must be kept at the Site from the time construction activities begins until the Site is stabilized. These documents will be made available upon request to regulatory agency representatives or members of the public.

4.2.4 Modifications to the Storm Water Management and Erosion Control Plan

During the course of remedial construction, unanticipated changes may occur that affect this MECP such as schedule changes, phasing changes, staging area modifications, off-site drainage impacts, and repeated failures of designed controls. Any changes to the activities and controls identified in this Plan must be documented and the Plan revised accordingly. Certification of revisions to this plan shall be included at the end of the document.

FIGURES

FIGURE 1



BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC
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PROJECT NO.: 0395-018-001

DATE: OCTOBER 2019

DRAFTED BY: CEH

SITE LOCATION AND VICINITY MAP

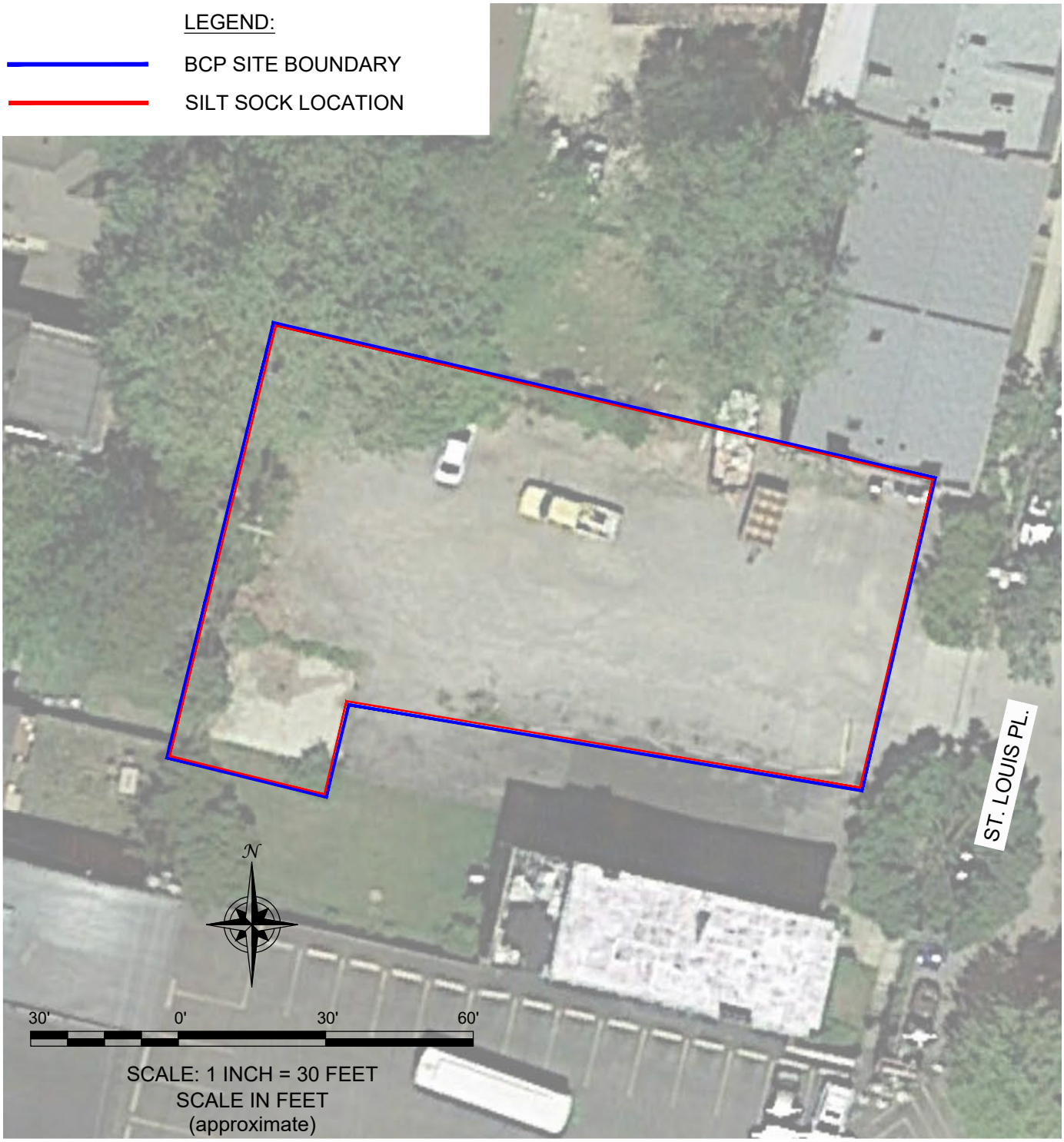
MASTER EROSION CONTROL PLAN

8 SAINT LOUIS PLACE
BUFFALO, NEW YOTK

PREPARED FOR
MAIN ST LOUIS LP

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FIGURE 2



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

PROJECT NO.: 0395-018-001

DATE: OCTOBER 2019

DRAFTED BY: CEH

SITE PLAN / EROSION CONTROL

MASTER EROSION CONTROL PLAN

8 SAINT LOUIS PLACE
BUFFALO, NEW YORK

PREPARED FOR
MAIN ST LOUIS LP

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ATTACHMENT F-1

EROSION CONTROL DETAILS

FINAL

New York State Standards and Specifications for Erosion and Sediment Control



November 2016

NEW YORK STATE OF OPPORTUNITY
Department of Environmental Conservation

STANDARD AND SPECIFICATIONS FOR STABILIZED CONSTRUCTION ACCESS



Definition & Scope

A stabilized pad of aggregate underlain with geotextile located at any point where traffic will be entering or leaving a construction site to or from a public right-of-way, street, alley, sidewalk, or parking area. The purpose of stabilized construction access is to reduce or eliminate the tracking of sediment onto public rights-of-way or streets.

Conditions Where Practice Applies

A stabilized construction access shall be used at all points of construction ingress and egress.

Design Criteria

See Figure 2.1 on page 2.31 for details.

Aggregate Size: Use a matrix of 1-4 inch stone, or reclaimed or recycled concrete equivalent.

Thickness: Not less than six (6) inches.

Width: 12-foot minimum but not less than the full width of points where ingress or egress occurs. 24-foot minimum if there is only one access to the site.

Length: As required, but not less than 50 feet (except on a single residence lot where a 30 foot minimum would apply).

Geotextile: To be placed over the entire area to be covered with aggregate. Filter cloth will not be required on a single-family residence lot. Piping of surface water under entrance shall be provided as required. If piping is impossible, a mountable berm with 5:1 slopes will be permitted.

Criteria for Geotextile: The geotextile shall be woven or nonwoven fabric consisting only of continuous chain polymeric filaments or yarns of polyester. The fabric shall be inert to commonly encountered chemicals, hydro-carbons, mildew, rot resistant, and conform to the fabric properties as shown:

Fabric Properties[3]	Light Duty[1] Roads Grade Subgrade	Heavy Duty[2] Haul Roads Rough Graded	Test Method
Grab Tensile Strength (lbs)	200	220	ASTM D1682
Elongation at Failure (%)	50	60	ASTM D1682
Mullen Burst Strength (lbs)	190	430	ASTM D3786
Puncture Strength (lbs)	40	125	ASTM D751 Modified
Equivalent	40-80	40-80	US Std Sieve
Opening Size			CW-02215
Aggregate Depth	6	10	-

[1]Light Duty Road: Area sites that have been graded to subgrade and where most travel would be single axle vehicles and an occasional multi-axle truck. Acceptable materials are Trevira Spunbond 1115, Mirafi 100X, Typar 3401, or equivalent.

[2]Heavy Duty Road: Area sites with only rough grading, and where most travel would be multi-axle vehicles. Acceptable materials are Trevira Spunbond 1135, Mirafi 600X, or equivalent.

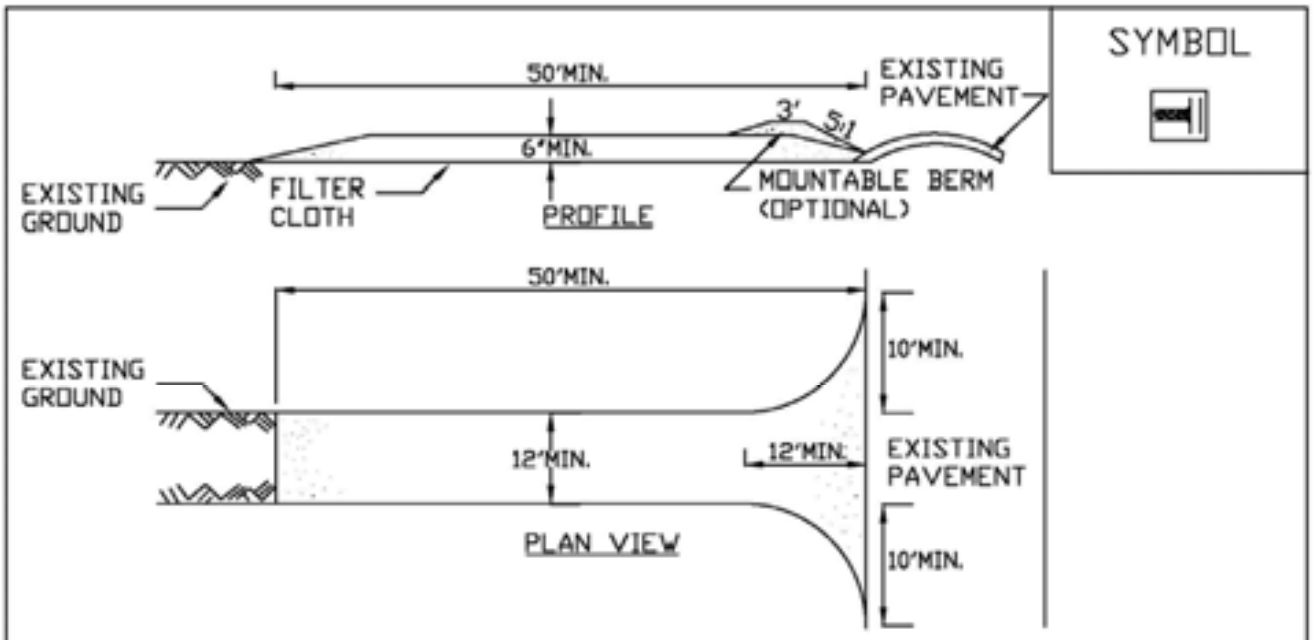
[3]Fabrics not meeting these specifications may be used only when design procedure and supporting documentation are supplied to determine aggregate depth and fabric strength.

Maintenance

The access shall be maintained in a condition which will prevent tracking of sediment onto public rights-of-way or streets. This may require periodic top dressing with additional aggregate. All sediment spilled, dropped, or washed onto public rights-of-way must be removed immediately.

When necessary, wheels must be cleaned to remove sediment prior to entrance onto public rights-of-way. When washing is required, it shall be done on an area stabilized with aggregate, which drains into an approved sediment-trapping device. All sediment shall be prevented from entering storm drains, ditches, or watercourses.

Figure 2.1
Stabilized Construction Access



CONSTRUCTION SPECIFICATIONS

1. STONE SIZE - USE 1-4 INCH STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
5. GEOTEXTILE - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ACCESS SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY, ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

ADAPTED FROM DETAILS PROVIDED BY: USDA - NRCS, NEW YORK STATE DEPARTMENT OF TRANSPORTATION, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

STABILIZED CONSTRUCTION ACCESS

STANDARD AND SPECIFICATIONS FOR COMPOST FILTER SOCK



Definition & Scope

A **temporary** sediment control practice composed of a degradable geotextile mesh tube filled with compost filter media to filter sediment and other pollutants associated with construction activity to prevent their migration offsite.

Condition Where Practice Applies

Compost filter socks can be used in many construction site applications where erosion will occur in the form of sheet erosion and there is no concentration of water flowing to the sock. In areas with steep slopes and/or rocky terrain, soil conditions must be such that good continuous contact between the sock and the soil is maintained throughout its length. For use on impervious surfaces such as road pavement or parking areas, proper anchorage must be provided to prevent shifting of the sock or separation of the contact between the sock and the pavement. Compost filter socks are utilized both at the site perimeter as well as within the construction areas. These socks may be filled after placement by blowing compost into the tube pneumatically, or filled at a staging location and moved into its designed location.

Design Criteria

1. Compost filter socks will be placed on the contour with both terminal ends of the sock extended 8 feet upslope at a 45 degree angle to prevent bypass flow.

2. Diameters designed for use shall be 12" – 32" except that 8" diameter socks may be used for residential lots to control areas less than 0.25 acres.

3. The flat dimension of the sock shall be at least 1.5 times the nominal diameter.

4. The **Maximum Slope Length** (in feet) above a compost filter sock shall not exceed the following limits:

Dia. (in.)	Slope %						
	2	**5**	**10**	**20**	**25**	**33**	**50**
8	225*	200	100	50	20	—	—
12	250	225	125	65	50	40	25
18	275	250	150	70	55	45	30
24	350	275	200	130	100	60	35
32	450	325	275	150	120	75	50
* Length in feet							



5. The compost infill shall be well decomposed (matured at least 3 months), weed-free, organic matter. It shall be aerobically composted, possess no objectionable odors, and contain less than 1%, by dry weight, of man-made foreign matter. The physical parameters of the compost shall meet the standards listed in Table 5.2 - Compost Standards Table. **Note: All biosolids compost produced in New York State (or approved for importation) must meet NYS DEC's 6 NYCRR Part 360 (Solid Waste Management Facilities) requirements. The Part 360 requirements are equal to or more stringent than 40 CFR Part 503 which ensure safe standards for pathogen reduction and heavy metals content. When using compost filter socks adjacent to surface water, the compost should have a low nutrient value.**

6. The compost filter sock fabric material shall meet the

7. Compost filter socks shall be anchored in earth with 2" x 2" wooden stakes driven 12" into the soil on 10 foot centers on the centerline of the sock. On uneven terrain, effective ground contact can be enhanced by the placement of a fillet of filter media on the disturbed area side of the compost sock.

8. All specific construction details and material specifications shall appear on the erosion and sediment control constructions drawings when compost filter socks are included in the plan.

Maintenance

1. Traffic shall not be permitted to cross filter socks.

2. Accumulated sediment shall be removed when it reaches half the above ground height of the sock and disposed of in accordance with the plan.

3. Socks shall be inspected weekly and after each runoff event. Damaged socks shall be repaired in the manner required by the manufacturer or replaced within 24 hours of inspection notification.

4. Biodegradable filter socks shall be replaced after 6 months; photodegradable filter socks after 1 year. Polypropylene socks shall be replaced according to the manufacturer's recommendations.

5. Upon stabilization of the area contributory to the sock, stakes shall be removed. The sock may be left in place and vegetated or removed in accordance with the stabilization plan. For removal the mesh can be cut and the compost spread as an additional mulch to act as a soil supplement.

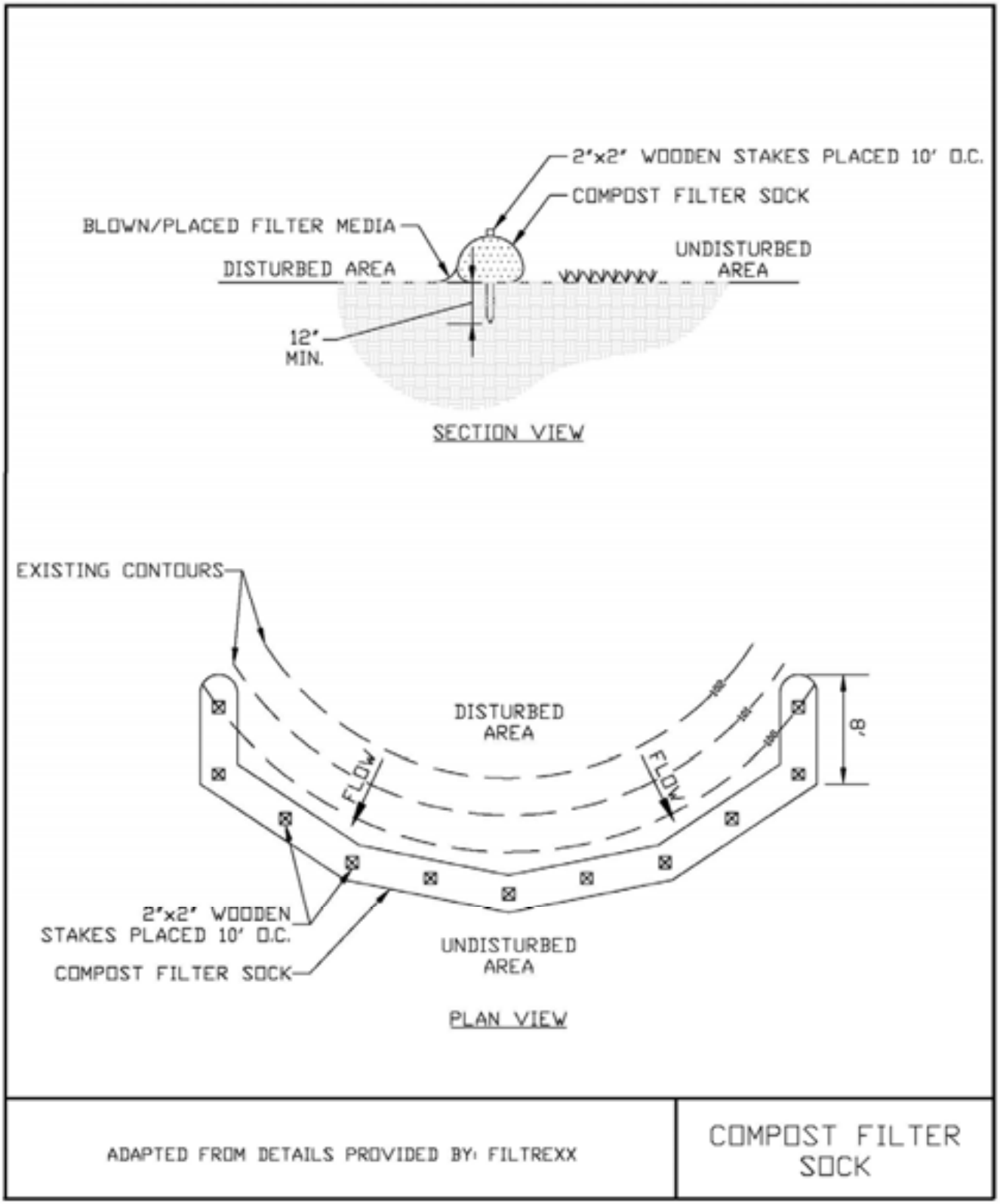
Table 5.1 - Compost Sock Fabric Minimum Specifications Table

Material Type	3 mil HDPE	5 mil HDPE	5 mil HDPE	Multi-Filament Polypropylene (MFPP)	Heavy Duty Multi-Filament Polypropylene (HDMFPP)
Material Characteristics	Photodegradable	Photodegradable	Biodegradable	Photodegradable	Photodegradable
Sock Diameters	12" 18"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"
Mesh Opening	3/8"	3/8"	3/8"	3/8"	1/8"
Tensile Strength		26 psi	26 psi	44 psi	202 psi
Ultraviolet Stability % Original Strength (ASTM G-155)	23% at 1000 hr.	23% at 1000 hr.		100% at 1000 hr.	100% at 1000 hr.
Minimum Functional Longevity	6 months	9 months	6 months	1 year	2 years

Table 5.2 - Compost Standards Table

Organic matter content	25% - 100% (dry weight)
Organic portion	Fibrous and elongated
pH	6.0 – 8.0
Moisture content	30% - 60%
Particle size	100% passing a 1" screen and 10 - 50% passing a 3/8" screen
Soluble salt concentration	5.0 dS/m (mmhos/cm) maximum

Figure 5.2
Compost Filter Sock



ATTACHMENT F-2

INSPECTION AND MAINTENANCE REPORT FORM

Inspection and Maintenance Report Form

To be completed every 7 days and within 24 hours of a rainfall event of 0.5 inches or more

Regular Inspector:_____Rainfall Event Inspector:_____Rainfall (inches):_____

Contractor Activities	OK	NO	N/A	Notes
Are construction onsite traffic routes, parking, and storage of equipment and supplies restricted to areas specifically designated for those uses?				
Are locations of temporary soil stock piles of construction materials in approved areas?				
Is there any evidence of spills and resulting cleanup procedures?				
General Erosion & Sediment Controls				
Are sediment and erosion BMPs installed in the proper location and according to the specifications set out in the SWM & ECP?				
Are all operational storm drain inlets protected from sediment inflow?				
Do any seeded or landscaped areas require maintenance, irrigation, fertilization, seeding or mulching?				
Is there any evidence that sediment is leaving the site?				
Is there any evidence of erosion or cut fill slopes?				
Perimeter Road Use				
Does much sediment get tracked on to the perimeter road?				
Is the gravel clean or is it filled with sediment?				
Does all traffic use the perimeter road to leave the site?				
Is maintenance or repair required for the perimeter road?				

_____ _____

Inspected by (Signature) Date

Inspection and Maintenance Report Form

To be completed every 7 days and within 24 hours of a rainfall event of 0.5 inches or more

Inspector:_____

STABILIZATION MEASURES					
Area	Date Since Last Disturbed	Date of Next Disturbance	Stabilized? Yes/No	Stabilized with	Condition

Stabilization Required: _____

_____

_____

_____

_____

_____

To be performed by: _____ On or before: _____