Remedial Investigation/ Alternative Analysis Report/ Interim Remedial Measures Report

2250 Factory Outlet Blvd. Site
Town of Niagara, New York
BCP Site No. C932127

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RI/AAR/IRM REPORT
2250 Factory Outlet Boulevard Site
Table of Contents

RI/AAR/IRM REPORT
2250 Factory Outlet Boulevard Site
Table of Contents

LIST OF TABLES

LIST OF FIGURES

APPENDICES

1.0 INTRODUCTION

This Remedial Investigation / Alternatives Analysis Report / Interim Remedial Measures (RI/AAR/IRM) Report has been prepared on behalf of NF-3rd Associates, LLC (NF-3rd) for the 2250 Factory Outlet Boulevard Site in the Town of Niagara, New York (see Figure 1).

In July 2006, NF-3rd, Benchmark Environmental Engineering & Science, PLLC (Benchmark) and Harter, Secrest and Emery, LLP met with the New York State Department of Environmental Conservation (NYSDEC) to discuss the known chromium-impacted green-colored soil/fill at the property and to discuss the potential for applying to the NYSDEC Brownfield Cleanup Program (BCP) to investigate and cleanup the property. Based on those discussions with the NYSDEC, it was decided that NF-3rd would submit a BCP application concurrently with an RI/AAR/IRM Work Plan. Based on previous investigations, which identified that only green-colored soil/fill contained elevated concentrations of chromium above NYSDEC Part 375 restricted-commercial Soil Cleanup Objectives (SCOs), the IRM component was included in the Work Plan to address the known impacted area concurrent with the RI/AAR activities in lieu of delaying this measure until after completion of the RI/AAR.

The RI/AAR/IRM Work Plan was approved by the NYSDEC on December 19, 2006 and a Brownfield Cleanup Agreement (BCA) was executed between NF-3rd and the NYSDEC on December 29, 2006 (BCP No. C932127). As indicated in the BCA, and based on the approximate area of the green-colored soil/fill, the NYSDEC determined that an approximate 1.81-acre portion (Site or BCP Site) of the greater 4.75-acre parcel is subject to the BCA (see Figure 2).

Benchmark implemented RI activities at the Site starting in December 2006. Based on the RI findings and findings of previous investigations, IRM activities (i.e., removal of green-colored soil/fill within the BCP Site) were completed in February-July 2007.

1.1 Purpose and Scope

NF-3rd intends to redevelop the subject property for commercial use. The primary objectives of the RI were to better delineate the nature and extent of soil/fill and groundwater contamination; to determine if the concentrations of constituents of concern in Site soil/fill and groundwater pose potential unacceptable risks to human health and the

environment; and to provide the data needed to evaluate potential remedial measures and determine appropriate actions to address potential significant risks.

This RI/RAR/IRM Report has been prepared on behalf of NF-3rd to: describe and present the findings of the December 2006 RI and subsequent IRM activities (February-March 2007); and, evaluate the IRM as the final remedial alternative for the Site.

This report contains the following sections:

- Section 2.0 presents the approach for the soil and groundwater investigation.
- Section 3.0 describes the physical characteristics of the Site as they pertain to the investigation findings.
- Section 4.0 presents the investigation results by media.
- Section 5.0 describes the fate and transport of the constituents of primary concern (COPCs).
- Section 6.0 presents the qualitative risk assessment.
- Section 7.0 presents the RI summary and conclusions.
- Section 8.0 summarizes the Interim Remedial Measures.
- Section 9.0 evaluates remedial alternatives for the Site.
- Section 10.0 provides a list of references for this report.

1.2 Background

1.2.1 Property and Site Description

The property located at 2250 Factory Outlet Boulevard, in the Town of Niagara, New York (Niagara County Tax Map No. 145.20-1-1) is an approximate 5-acre parcel owned by NF-3rd Associates, LLC (see Figure 2). An approximate 1.81-acre portion (Site or BCP Site) of the greater 5-acre parcel is subject to the Brownfield Cleanup Agreement (BCA) with the NYSDEC. Previous environmental investigations have determined that portions of the Site soil/fill were contaminated with chromium.

The property is bounded by Interstate 190 to the west, a car dealership to the north, Military Road to the northeast, Factory Outlet Boulevard to the southeast, and an automobile oil and lube facility to the south. The approximate 39,000 square foot vacant concrete block building (slab-on-grade) located on the western portion of the property was demolished in January 2007. The remainder of the Site is covered with asphalt or grass/landscaping. The BCP Site is located in the southeast corner of the property that fronts on Factory Outlet Boulevard. Planned redevelopment of the Site includes a Niagara Frontier Transportation Authority (NFTA) bus terminal and offices with associated drives and surface lot parking (see Figure 2).

1.2.1.1 Site Topography and Drainage

A majority of the Site is covered with asphalt and manicured lawn along the eastern and southern borders. The Site is generally flat with limited distinguishable Site features. Precipitation (i.e., rain or melting snow) either infiltrates into the soil or runs off asphalt to the storm drains present in the parking areas via overland flow. A subsurface storm water detention system, consisting of perforated PVC pipes, is reportedly located north of the former building and drains to a culvert along the western property boundary. Surface and shallow groundwater flow are likely impacted by subsurface fill placed during former site development, as well as utility lines and foundations.

1.2.1.2 Site Geology and Hydrogeology

A summary of boring logs in the Phase II Subsurface Environmental Assessments (Ref. 1) and the Supplemental Phase II Investigation (Ref. 2) indicate that the subsurface soil at the Site consists of three distinct horizons: (1) asphalt, concrete or topsoil at grade to approximately 0.3 feet below ground surface (fbgs); (2) a soil/fill layer consisting of mostly sand and gravel with some topsoil, concrete, and asphalt ranging in thickness from 1-foot to approximately 4.0 feet; and, (3) a native reddish brown silty clay. During the previous investigations, some of the soil/fill was identified has having a characteristic green-color; however, it was not prevalent across the entire greater 5.33-acre parcel.

The U.S. Department of Agriculture Soil Conservation Service soil survey map of Niagara County describes the general soil type at the Site as an association of Darien-Cazenovia-Nunda types and Urban Land (Ref.3).

The Site is located in the Erie-Ontario Lake Plain Physiographic Province of Western New York. The geology of the Erie-Niagara Basin is described as consisting of unconsolidated deposits (predominantly of glacial origin) overlying Silurian- and Devonian-age sedimentary bedded or layered bedrock (Refs. 4 and 5). The naturally occurring unconsolidated deposits in the area consist of the following three types: alluvial silt, sand, and gravel deposited during comparatively recent geologic time; Lacustrine sediments composed primarily of silt, sand, and clay deposited during the late Pleistocene Epoch; and glacial till, a heterogeneous mixture of particles (i.e., clay, silt, sand, gravel, and cobbles) deposited directly from glacial ice during the Pleistocene Epoch. Relief in the area is generally flat and the result of pre-glacial erosion of bedrock and subsequent topographic modification by glaciation.

The bedrock formations in the region dip to the south at approximately 30 to 40 feet per mile and exhibit only very gentle folding. In the Erie-Niagara Basin, the major areas of groundwater are within coarser overburden deposits and limestone and shale bedrock. The main sources of groundwater within the bedrock are fractures and solution cavities. Regional groundwater appears to flow south toward the Niagara River.

1.2.1.3 Climate

Western New York has a cold continental climate, with moisture from Lake Erie causing increased precipitation. Average annual precipitation is reportedly 40.5 inches and snowfall is 93.6 inches (NOAA, 2000) to the northern part of the watershed with over 150 inches per year falling on the southern portion of the watershed. Average monthly temperatures range from 24.5 degrees Fahrenheit in January to 70.8 degrees Fahrenheit in July (NOAA, 2000). The ground and lakes typically remain frozen from December to March. Winds are generally from the southwest (240 degrees) with a mean velocity of 10 miles per hour (Buffalo Airport, 1999).

1.2.1.4 Population and Land Use

The Town of Niagara, encompassing 9.4 square miles, has a population of approximately 8,649 (2005 estimate, U.S. Census Bureau), a decrease of 329 from the 2000 U.S. Census. The Town of Niagara is primarily zoned residential and commercial use, with community and public service use as well. The Site is located in Census Tract 226.02, in an area of the Town zoned commercial/residential, and has a population density of 1,074

people per square mile. Land uses adjacent to the Site include a car dealership to the north and an automobile oil and lube facility to the south. The property is bounded by Interstate 190 to the west, Military Road to the northeast, and Factory Outlet Boulevard to the southeast.

1.2.1.5 Utilities and Groundwater Use

The subject property has access to major public and private utilities, including water (Niagara County Water District), sanitary and storm sewers (Town of Niagara), electric (Niagara Grid Corporation) and natural gas (National Fuel Gas).

Groundwater at the Site is assigned Class "GA" by 6NYCRR Part 701.15. Benchmark contacted the Niagara County Department of Public Health (Environmental Health), and was informed that all water users within the Town of Niagara are required to connect to the available municipal potable water supply. The Department of Public Health has no records indicating the existence of secondary potable water wells within the vicinity of the Site.

1.2.1.6 Wetlands and Floodplains

Niagara County Internet Mapping Service shows that no State or Federal wetlands or floodplains exist on the subject property. Federal wetlands and a 100-year flood plain are located approximately 0.1 miles to the west of the Site.

1.2.2 Previous Investigations

The following sections describe the results of pre-RI sampling programs to provide a historic-based description of the nature and distribution of chemical constituents at the Site. Appendix A presents the analytical data tables from these previous investigations. Sample locations are shown on Figure 3.

1.2.2.1 December 1995 – Phase I Environmental Site Assessment

A Phase I Environmental Assessment (Ref. 6) of the property was completed in December 1995 by Maxim-Empire Soils Investigations, Inc. (Maxim-Empire). That study indicated that the property was first developed in the early 1970s by Grossman's Building Supply. Prior to that time, the Site was reportedly undeveloped. The Phase I ESA indicated that the former "Union Carbide Dump" was located less than 1,000 feet west of the property, but concluded that it was unlikely that portions of the property are within the

limits of the "Union-Carbide Dump." Maxim-Empire did not identify recognized environmental concerns associated with the property.

1.2.2.2 February/March 2006 – Phase II Subsurface Environmental Assessment

In February and March 2006, Panamerican Environmental, Inc. (PEI) performed a Phase II subsurface environmental assessment at the property (Ref. 1). That investigation included 32 soil borings across the property. Select soil/fill samples were analyzed for target compound list (TCL) volatile organic compounds (VOCs), TCL semi-volatile organic compounds (SVOCs), TCL pesticides, polychlorinated biphenyls (PCBs) and Resource Conservation and Recovery Act (RCRA) metals. Analytical results indicated that VOCs, SVOCs, pesticides and PCBs were not constituents of concern. However, it was determined that portions of Site have been impacted with chromium. The concentration of chromium exceeded the NYSDEC Part 375 restricted-commercial Soil Cleanup Objective (SCO) of 400 ppm at five locations, ranging from 4,650 ppm to 16,900 ppm in the 1 to 3 fbgs interval. Additional testing (Ref. 7) of one soil/fill sample (BH2-01, 1-3 fbgs) with an elevated chromium concentration (11 mg/L) completed by PEI subsequent to that investigation indicated that some of the soil/fill could be considered a characteristic hazardous waste due to exceedance of the toxicity characteristic leaching procedure (TCLP) threshold of 5 mg/L. PEI concluded that the source of the chromium impact could be either imported fill materials or historic dumping associated with former landfill activities by Union Carbide in the vicinity of the property.

1.2.2.3 June 2006 – Supplemental Phase II Site Investigation Findings

In June 2006, Benchmark performed a supplemental soil/fill investigation (Ref. 2) focused on collecting near-surface (i.e., 0-4 fbgs) soil/fill samples to evaluate the areal extent of previously identified chromium impact on the property. Eleven (11) soil borings were completed on the property; six (6) within and five (5) outside the former building footprint. Total chromium concentrations ranged from non-detect to 66 ppm, well below the hexavalent chromium Part 375 SCO of 400 ppm.

1.3 Constituents of Primary Concern (COPCs)

Based on findings to date, the only Constituent of Potential Concern (COPC) is chromium. The Remedial Investigation approach described in the RI Work Plan (Ref. 8) focused on sampling for total and hexavalent chromium (site-wide) and TCLP chromium at select locations on the Site.

2.0 INVESTIGATION APPROACH

The purpose of the RI field activities was to more fully define the nature and extent of contamination on the BCP Site, and to collect data of sufficient quantity and quality to perform the remedial alternatives evaluation. On-Site field activities included: surface and subsurface soil sampling; monitoring well installation; groundwater sampling of newly installed monitoring wells and one existing well; collection of hydraulic data; and, bench-scale soil treatability testing.

2.1 Soil/Fill Investigation

To supplement the previous Site investigations performed by PEI and Benchmark, additional surface and subsurface soil/fill samples were collected via a series of soil borings (SBs) and test pits (TPs), designated as SB-12 through SB-23 and TP-1 through TP-12 (see Figure 3). Samples were collected between December 18 and 21, 2006 to more fully delineate the nature and extent of contamination in Site soil/fill. The soil/fill investigation included Site-wide sampling for chromium and limited sampling for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs) and other metals. Based on previous investigations, only chromium was identified within on-site soil/fill at elevated concentrations relative to the NYSDEC Part 375 restricted-commercial SCOs. The soil/fill investigation was designed to delineate the vertical and areal extent of chromium impact on-site; to determine the extent and quantity of characteristic hazardous waste; and to assess whether other potential contaminants exist within on-site soil/fill at concentrations of concern.

Soil/fill samples were collected using dedicated stainless steel sampling tools. Representative soil/fill samples were placed in pre-cleaned sample bottles provided by the laboratory, cooled to 4ºC in the field, and transported under chain-of-custody command to Severn Trent Laboratories, Inc. (STL), located in Amherst, New York, a New York State Department of Health (NYSDOH) ELAP-certified analytical laboratory. Soil/fill samples were submitted for total and hexavalent chromium (Site-wide) and TCLP chromium (select locations). For Site characterization purposes, additional soil/fill samples were analyzed for TCL VOCs, TCL SVOCs, TCL PCBs and TAL Metals in accordance with NYSDEC ASP CLP methodology. Sample locations are shown on Figure 3.

2.1.1 Radiological Screening

Soil/fill materials investigated during test pits and soil borings were field-screened for the presence of radionuclides using a handheld Radiation Alert® Inspector+ radiation meter equipped with a Geiger-Mueller (GM) pancake probe.

2.1.2 Chromium Sampling

Chromium sampling focused on collecting soil/fill samples proximate the area of known impact to delineate the extent of chromium contamination. Delineation activities were completed via a series of test pits in a manner that allowed visual observation of soil/fill materials to determine the extent of green-colored fill materials. Specifically, test pits were initiated in an area of known impact (i.e., green-colored soil/fill) and continued in a radial pattern toward areas previously identified as "clean" (see Figure 3).

A total of 22 soil/fill samples were collected from various depth intervals from 12 test pits in the area of known impact and analyzed for total chromium, hexavalent chromium, and TCLP chromium (TCLP sampling is discussed further below). Trivalent chromium concentrations were calculated as the difference between total chromium and hexavalent chromium concentrations. An additional 12 soil borings were completed using a direct-push drill rig to assess potential chromium impact in other areas of the Site (see Figure 3). Thirteen samples were collected from the 12 soil borings and were analyzed for total chromium. Appendix B contains test pit and field borehole logs.

Soil sampling for chromium focused on collecting samples from the visually impacted soil/fill within the top 4 fbgs. In areas where samples were collected within discolored soil/fill, select samples were collected from the native material beneath visually impacted soil/fill (i.e., 4-6 fbgs) and held at the laboratory. If analytical data from the visually impacted soil/fill indicated concentrations of chromium above the NYSDEC Part 375 restricted-commercial SCO, the archived sample from that test pit or soil boring was analyzed to document the chromium concentration in the native material.

2.1.3 TCLP Chromium Sampling

To determine the whether additional characteristic hazardous chromium-containing soil/fill was present on-site, 13 soil samples in the area east of the former building were analyzed for TCLP chromium. All samples were collected from green-colored fill material.

2.1.4 Other Parameters Sampling

As a requirement of the NYSDEC BCP, surface and subsurface soil samples were collected at select areas of the Site and analyzed for TCL SVOCs, Pesticides/PCBs, Herbicides, and Target Analyte List (TAL) metals to evaluate the potential presence of these contaminants at concentrations of concern. Three subsurface samples were collected from borings MW-1 through MW-3. One composite surface soil sample consisted of two grab samples collected in the grass-covered area of the Site. Since VOCs were not detected during field screening with a PID, samples were not submitted for analysis of TCL VOCs.

2.2 Groundwater Investigation

In accordance with the Work Plan, three overburden groundwater monitoring wells were installed to provide groundwater flow information as well as groundwater quality information. An existing well, designated by Benchmark as MW-4, was discovered east of the former building within the chromium-impacted area (see Figure 3). The 2-inch diameter PVC flush mount well measured approximately 16 fbgs. Monitoring well installation, well development, and groundwater sample collection are discussed in the following sections.

2.2.1 Overburden Drilling

On December 21, 2006, three borings were advanced at the locations shown on Figure 3 to facilitate installation of permanent groundwater monitoring wells MW-1 through MW-3.

Each boring location was advanced using hollow stem auger drilling methods to a depth of 10 fbgs. A 2-inch diameter, 2-foot long split spoon sampler was advanced ahead of the auger string with a standard 140-pound hammer falling freely over a 30-inch fall until 24 inches had penetrated or 50 blows applied. Due to drill rig problems, MW-2 was split-spooned sampled to 4 fbgs then augured to 10 fbgs. Recovered samples were described in the field by qualified Benchmark personnel using the Unified Soil Classification System (USCS), scanned for total volatile organic vapors with a calibrated photoionization detector (PID) equipped with a 10.6 eV lamp (or equivalent), and characterized for impacts via visual and/or olfactory observations. All non-dedicated drilling tools and equipment were decontaminated between boring locations using potable tap water and a phosphate-free detergent (e.g., Alconox).

Soil descriptions, PID scan results, and visual/olfactory observations recorded during boring advancement are presented on the Field Borehole Logs in Appendix B.

2.2.2 Monitoring Well Installation

Subsequent to boring completion, a 2-inch diameter flush-joint Schedule 40 PVC monitoring well was installed at each location. Each well was constructed with a 5-foot flush-joint Schedule 40 PVC, 0.010-inch machine slotted well screen. Each well screen and attached riser was placed at the bottom of each borehole and a silica sand filter pack (size #0) was installed from the base of the well to a maximum of 2 feet above the top of the screen. A minimum 2-foot thick bentonite chip seal was installed and allowed to hydrate sufficiently to mitigate the potential for downhole grout contamination. Cement/bentonite grout was installed to approximately one-foot below ground surface via pressure tremie-pipe procedures. The newly installed monitoring wells were completed with keyed alike locks, a lockable J-plug, and an 8-inch diameter steel flush mounted road box anchored within a 2-foot by 2-foot by 1-foot square concrete pad. Monitoring well construction details are presented in Appendix B.

2.2.3 Groundwater Sampling

Existing and newly installed monitoring wells were developed prior to sampling to remove residual sediments and ensure good hydraulic connection with the water-bearing zone. Newly installed wells were developed a minimum of two days after installation. A minimum of three well volumes were removed from each well. Prior to sample collection, static water levels were measured and recorded.

Dedicated, disposable PVC bailers equipped with a bottom check-valve were used for sample collection. Bailers were lowered gently with minimal water agitation into the well with dedicated polyethylene or polypropylene line.

All groundwater samples were analyzed for TCL VOCs, SVOCs, PCBs, and TAL total and soluble metals (including hexavalent chromium) in accordance with NYSDEC ASP CLP methodology.

2.2.4 Bench-Scale Soil Treatability Testing

Bench-scale treatability testing was completed on January 12 and 30, 2007 to evaluate potential soil amendments that would result in a reduction of the TCLP concentration below 5 mg/L and consequently result in the soil/fill not exhibiting hazardous waste characteristics. The test on January 12 used Portland cement at 0.5%, 2%, and 5% by weight. Since this amendment did not achieve the desired results for Samples 1 and 2, a second test was conducted on January 30 and involved addition of ferrous sulfate (2% and 5%), lime (15%), and Portland cement (10%). The treatability testing was conducted as follows:

- Four, 5-gallon buckets of soil/fill were collected from three locations exhibiting hazardous waste characteristics for chromium (i.e., TP-2, TP-6, and TP-11) and transported under standard chain of custody to STL Laboratories. The bench-scale treatability tests were completed at STL Laboratories by Benchmark personnel.

- The four sample buckets were combined, mixed, and weighed.

- Varying concentrations of soil/fill amendments were added to and mixed with the soil/fill sample aliquots. De-ionized water was used to enhance dispersion of the amendments into the soil/fill samples.

- The treated soil/fill was re-tested for TCLP chromium.

2.3 Site Survey

A Site map was developed during the RI field activities. All sample points and relevant Site features, including the former building, were located on the Site map. Benchmark employed a Trimble GeoXT handheld GPS unit to identify the locations of all soil borings and newly installed wells relative to New York State planar grid coordinates. Monitoring well elevations were measured by Benchmark's surveyor. An isopotential map showing the general direction of groundwater flow was prepared based on water level measurements (see Table B-1 in Appendix B) relative to USGS vertical datum (see Figure 4).

3.0 SITE PHYSICAL CHARACTERISTICS

The physical characteristics of the Site observed during the RI are described in the following sections.

3.1 Surface Features

The Site is generally flat with limited distinguishable surface features. During RI sampling, the majority of the Site was covered with asphalt and some manicured lawn along the eastern and southern borders. Demolition of the building on the portion of the property west of the BCP Site was completed in January 2007.

3.2 Geology

The Site geology described in Section 1.2.1.2 of this report was confirmed during this investigation. Soil/fill observed in the soil borings and test pits ranged from approximately 0.2 to 3.0 fbgs.

3.3 Hydrogeology

Groundwater was generally observed between approximately 3.8 and 4.2 fbgs. Based on the Site topography and surface water elevations, regional groundwater flow is anticipated to be in a southerly direction toward the Niagara River, which is approximately 9,000 feet south of the Site. Based on the water levels measured during the RI, groundwater appears to flow in southerly and southeasterly directions from the Site (see Figure 4).

4.0 INVESTIGATION RESULTS BY MEDIA

The following sections discuss the analytical results of the Remedial Investigation. Tables 1 through 3 summarize the soil and groundwater analytical data. Analytical data is included in Appendix C. Figure 3 presents the soil sampling and groundwater monitoring well locations.

4.1 Soil/Fill

Tables 1 and 2 present a comparison of the detected soil/fill parameters to Soil Cleanup Objectives (SCOs) for protection of public health on both unrestricted and restricted-commercial properties per regulations contained in 6NYCRR Part 375-6 (December 2006). Although the Site is intended to be used for commercial purposes (see Section 9.0 and Appendix F), evaluating a more restricted-use scenario is a requirement of the BCP. Therefore, Table 2 also includes a comparison of the soil/fill analytical data to Part 375-6 Unrestricted SCOs. Sample results are described below according to contaminant class.

4.1.1 Radiological Screening

Field screening of soil materials for the presence of radionuclides during test pits and soil borings did not identify elevated readings above site background. The NYSDEC was present during these field screening activities. The radiological screening levels are noted in the field borehole logs and the test pit excavation logs in Appendix B.

4.1.2 Chromium

As indicated in Table 1, trivalent chromium was detected above its restricted-commercial SCO of 1,500 mg/kg in one soil boring (SB-17) and 11 test pit samples. These samples were collected from green-colored soil/fill within the interval of 0-3 fbgs. The highest chromium concentration (7,622 mg/kg) was observed in the 0-2.5 fbgs interval within test pit TP-2. Samples TP-1 SL#1 (2-2.5), TP-1 SL#2 (0-2), TP-2 (2.5-3), TP-3 SL#1 (2-3), TP-3 SL#2 (0-2), TP-4 (2.5-3.5), TP-5 SL#1 (2.5-3), TP-5 SL#2 (2-2.5), TP-6 SL#1 (3.3.5) and TP-6 SL#2 (0-3), collected from native soil beneath or adjacent to the chromium-impacted (green-colored) fill were analyzed for chromium and found to contain concentrations well below the commercial SCO. Based on the results of this sampling

effort, it was estimated that approximately 4,000 cubic yards of soil were impacted with chromium from approximately 0.5-3 fbgs. Hexavalent chromium was not detected above the restricted-commercial SCO of 400 mg/kg in any soil/fill samples.

4.1.3 TCLP Chromium

As summarized on Table 1, four of the 13 green-colored soil samples analyzed for TCLP chromium exceeded the TCLP threshold for characteristic chromium (5 mg/L). Table 1 also compares the TCLP and total chromium results. Although all the samples that exceeded the TCLP threshold also exceeded the restricted-commercial SCO for trivalent chromium, other soil/fill samples with higher trivalent chromium concentrations did not exceed the TCLP threshold. Therefore, a correlation does not appear to exist between total and TCLP chromium concentrations.

4.1.4 Site Characterization

As presented on Table 2, Benchmark collected one surface (0-0.5 fbgs) and three subsurface (up to 10 fbgs) soil/fill samples for analysis of TCL SVOCs, pesticides/herbicides, PCBs, and TAL metals. None of the surface or subsurface soil/fill samples exceeded the restricted-commercial SCOs for SVOCs, pesticides/herbicides, PCBs, or TAL metals. As indicated on Table 2, the pH range for the soil/fill samples was 7.1 to 7.47.

4.1.5 Bench-Scale Results

Based on the results of the treatability testing as summarized on Table 4, addition of ferrous sulfate appears to be the most suitable amendment of those evaluated. A concentration of 2% by weight of ferrous sulfate rendered the chromium-impacted soil/fill non-hazardous (i.e., below 5 mg/L TCLP chromium) by characterization.

4.1.6 Summary

As described above, chromium concentrations in excess of the restricted-commercial SCO were generally limited to the green-colored fill area in the southeastern portion of the Site. Based on these results, it was estimated that approximately 4,000 cubic yards of soil/fill were impacted with chromium to a maximum depth of 3 fbgs. Four of the 13 soil/fill samples analyzed for TCLP chromium exceeded the TCLP hazardous waste characteristic

threshold concentration, indicating the possible need to treat the chromium-impacted soil prior to disposal or dispose of the soil as a characteristic hazardous waste. None of the soil/fill characterization samples, outside of the green-colored fill area, contained contaminant concentrations in excess of the restricted-commercial SCOs.

4.2 Groundwater

Table 3 presents a comparison of the detected groundwater parameters to the Class GA Groundwater Quality Standards (GWQS) per NYSDEC TOGS 1.1.1 Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations (June 1988). The sampling results for monitoring wells MW-1 through MW-4 are discussed in the following sections.

4.2.1 Volatile Organic Compounds

One VOC (tetrachloroethene) was detected in monitoring well MW-1 but at a concentration (1.0 J ug/L) well below the GWQS of 5 ug/L.

4.2.2 Semi-Volatile Organic Compounds

Bis(2-ethylhexyl)phthalate was detected in all 3 newly installed monitoring wells; however, this compound is a common sampling/laboratory artifact and was detected in the method blank as well as in the sample. As such, the data validator qualified the data as "undetected".

4.2.3 Metals

Total chromium was detected in the existing (upgradient) well MW-4 at a concentration of 75.9 ug/L, which exceeds the GWQS of 50 ug/L. The soluble chromium concentration in MW-4 (0.95 B) is well below the GWQS. Hexavalent chromium was not detected in any groundwater sample. Other metals detected at levels above GWQS/GV were limited to total iron, lead, magnesium, manganese, and sodium. Soluble magnesium, manganese, and sodium also exceeded their respective GWQS.

4.2.4 Polychlorinated Biphenyls

All of the analyzed PCBs were reported as non-detectable in each of the wells sampled.

4.2.5 Summary

Groundwater data indicates a minor groundwater quality impact only in the green-colored fill area. With the exception of one total chromium exceedance in existing well MW-4, located within the green-colored fill area, all other detected groundwater constituents on the Site were generally limited to naturally-occurring metals and minerals.

4.3 Data Usability Summary

In accordance with the Section 9.0 of the RI Work Plan (Ref. 8), the laboratory analytical data from this investigation was independently assessed and, as required, submitted for independent review. Ms. Judy Harry of Data Validation Services located in North Creek, New York performed the data usability summary assessment, which involved a review of the summary form information and sample raw data, and a limited review of associated QC raw data. Specifically, the following items were reviewed:

- Laboratory Narrative Discussion
- Custody Documentation
- Holding Times
- Surrogate and Internal Standard Recoveries
- Matrix Spike Recoveries/Duplicate Recoveries
- Field Duplicate Correlation
- Preparation/Calibration Blanks
- Control Spike/Laboratory Control Samples
- Instrumental IDLs
- Calibration/CRI/CRA Standards
- ICP Interference Check Standards
- ICP Serial Dilution Correlations
- Sample Results Verification

The Data Usability Summary Report (DUSR) was conducted using guidance from the USEPA Region 2 validation Standard Operating Procedures, the USEPA National Functional Guidelines for Data Review, as well as professional judgment. Appendix D includes the DUSR, which was prepared in accordance with Appendix 2B of NYSDEC's draft DER-10 guidance (Ref. 9).

5.0 FATE AND TRANSPORT OF COPCS

The soil and groundwater sample analytical results were incorporated with the physical characterization of the Site to evaluate the fate and transport of COPCs in Site media. The mechanisms by which the COPCs can migrate to other areas or media are briefly outlined below.

5.1 Airborne Pathways

Volatilizations, when volatilizing chemicals are present in Site media, and the generation of fugitive dust are two potential migration pathways for airborne transport of COPCs.

5.1.1 Volatilization

Volatile chemicals are not present in Site soil and groundwater; therefore, this migration pathway is not relevant.

5.1.2 Fugitive Dust Generation

Non-volatile chemicals present in soil can be released to ambient air as a result of fugitive dust generation. However, since the majority of the Site is covered by asphalt and grass/landscaping, suspension due to wind erosion or physical disturbance of surface soil particles is unlikely.

Under a hypothetical future commercial land use, the majority of the Site would be covered by structures, asphalt, and grass/ornamental landscaping. Since fugitive dusts may be generated during excavation activities under both the current and future use scenarios, this migration pathway is potentially relevant under the current and reasonably anticipated future land use.

5.2 Waterborne Pathways

Chemicals in subsurface soils could be potentially transported via storm water runoff during excavation or construction activities, or leaching to groundwater.

5.2.1 Surface Water Runoff

The potential for soil particle transport with surface water runoff is low, as the Site is generally covered by asphalt and vegetative growth, and is serviced by a storm water

collection system. The storm sewer collection system provides a mechanism for controlled surface water transport but will ultimately result in sediment capture in the grit chambers followed by disposal at a permitted sanitary landfill.

5.2.2 Leaching

Leaching refers to chemicals present in soil migrating downward to groundwater as a result of infiltration of precipitation. However, it is necessary to determine how much of that contamination will actually contribute to a violation of groundwater standards upon reaching and dispersing into groundwater.

TCLP results for the Site, show that within the green-colored fill area, total chromium was detected above the Class GA water quality standard in the groundwater sample collected from one monitoring well (MW-4) in that area. Soluble chromium was not detected in any groundwater sample. As elevated chromium was not detected in down-gradient monitoring wells on-site, there is reduced concern for this pathway.

5.3 Exposure Pathways

Based on the analysis of chemical fate and transport provided above, the pathway through which Site COPCs could reach receptors off-site at significant exposure point concentrations is fugitive dust emissions via physical disturbance of soil particles. This exposure pathway may be reduced, but would not necessarily be fully addressed, under the future unremediated commercial land use scenario discussed in Section 6.0.

6.0 QUALITATIVE RISK ASSESSMENT

6.1 Potential Human Health Risks

The identification of potential human receptors is based on the characteristics of the Site, the surrounding land uses, and the probable future land uses. The 2250 Factory Outlet Boulevard BCP Site, and surrounding NF-3rd project are currently vacant. Under unremediated Site use conditions, human contact with Site-related COPCs can be expected to occur primarily by construction workers that may access the Site to service subsurface utilities. Additionally, trespassers could be considered receptors only if the exisiting asphalt and grass cover system were compromised, such as during subsurface construction activities.

Trespassers may be comprised of children, adolescents, and adults, whereas construction workers would be limited to adults. The Site and surrounding properties are serviced by municipal (supplied) water. Therefore, direct exposure to on-site or off-site groundwater would be limited to direct contact by construction workers.

In terms of planned future use, the current Site owner (NF-3rd) intends to redevelop the Site as a Niagara Frontier Transportation Authority (NFTA) bus terminal and offices with associated drives and surface lot parking. This planned use is consistent with surrounding property use and Site zoning. Accordingly, the reasonably anticipated future use of the Site is for commercial purposes, with exposed on-site receptors comprised of the general public, the commercial worker (groundskeeper), and the construction worker (utilities).

The only chemical prevalent in unremediated soil/fill at elevated concentrations is chromium and only within the identified chromium-impacted area of the Site. Total chromium was also present in one groundwater sample located within the chromium-impacted area of the Site. Non-volatile metals (i.e total chromium) present in soil/fill may be released to ambient air as a result of fugitive dust generation, if and when disturbed. Off-site transport of chemicals via storm water runoff and leaching is also possible, although not probable as the site is serviced by storm water collection system and chromium has not been detected on down-gradient wells. Under both the unremediated current and future (commercial) use conditions, potential exposure routes are incidental ingestion, dermal contact, and inhalation of re-suspended particulates in air; and dermal contact with compounds in surface water runoff or groundwater.

For construction worker and potential trespasser scenarios, health-risk based lookup values specifically addressing these types of receptors are not widely published, as estimates of exposure frequency and duration tend to be site-specific in nature. However, the NYSDEC has published health risk-based lookup values for several chemicals under various exposure scenarios in the September 2006 document entitled "New York State Brownfield Cleanup Program, Development of Soil Cleanup Objectives, Technical Support Document" (a.k.a., "Technical Support Document"). The Technical Support Document forms the basis for the health-based SCOs presented in 6NYCRR Part 375-6. Based on incorporation of these types of receptors and exposures, the commercial health-based SCOs presented in the Technical Support Document are considered protective of human health under both the current and future Site use conditions. Referring to Table 5.3.6-2, Chronic Human Health-Based Soil Cleanup Objectives, the commercial SCO of 1,500 mg/kg (child, non-carcinogenic) is the basis for the Part 375 SCO for trivalent chromium.

Historic soil data was reviewed to determine the highest exposure point concentration for chromium detected on the Site. The highest chromium concentration of 16,900 mg/kg was observed in subsurface soil/fill sample BH2-01 (1-3 fbgs) during the March 2006 Phase II Subsurface Environmental Assessment. Unacceptable health risks attributable to chromium in soil/fill are indicated for the potential receptors identified above under the current and future use scenarios. The health-based criterion described above is for individual constituents; cumulative or synergistic effects among chemicals may yield greater risks.

RI data for monitoring well MW-4 indicates an exceedance of the NY State Class GA groundwater quality standard for total chromium, suggesting that groundwater impacts are present and localized to the chromium-impacted area. As down-gradient chromium in groundwater impacts were not identified, the unremediated condition may pose a potential risk to on-site receptors.

6.2 Potential Ecological Risks

The 2250 Factory Outlet Boulevard BCP Site is a former commercial facility located within a developed, urban area in the Town of Niagara. The Site is currently vacant and covered with asphalt and grass/ornamental landscaping, providing little or no wildlife habitat or food value. Until it was demolished in January 2007, an approximate 39,000 square foot concrete block building was located on the western portion of the property. No natural

waterways are present on or adjacent to the Site. The reasonably anticipated future use is commercial with the majority of the Site covered by buildings and asphalt. As such, no unacceptable ecological risks are anticipated under the current or reasonably anticipated future use scenario.

7.0 REMEDIAL INVESTIGATION SUMMARY AND CONCLUSIONS

Based on the information and analyses presented in the preceding sections, the only constituent of concern (COC) at the Site is trivalent chromium in the green-colored soil/fill area of the Site, and to a lesser extent, groundwater in that same general vicinity. Chromium concentrations exceed the restricted-commercial SCO in the soil/fill and GWQS in the groundwater within the green-colored soil/fill area only (see Figure 3). Soil/fill and groundwater concentrations indicate unacceptable human health risk to current and reasonably anticipated future receptors, indicating a human health and environmental concern only within the green-colored soil/fill area.

It was determined during the course of RI planning that interim remedial measures would be required to address impacted soil/fill at the 2250 Factory Outlet Boulevard BCP Site. Specifically, an Interim Remedial Measure (IRM) involving soil/fill remediation was recommended during the RI process in lieu of delaying this measure until after completion of the RI/AAR. A discussion of the IRM construction is presented in Section 8.0.

8.0 INTERIM REMEDIAL MEASURES (IRM)

An IRM was implemented at the 2250 Factory Outlet Boulevard Site concurrent with RI activities in accordance with the RI/AAR/IRM Work Plan (Ref. 8), as approved by the NYSDEC on December 9, 2006. Based on the nature and extent of the green-colored soil/fill, which was contaminated with chromium, some exhibiting hazardous characteristics, the Work Plan called for source removal via excavation, with off-site disposal and/or treatment and off-site disposal of impacted soil/fill. The lateral extent of the impacted area as shown on Figure 5 was excavated and disposed off-site per the approved Work Plan. Specific elements of the IRM, as implemented, generally included:

- Excavation and on-site staging of asphalt cover (0.5-1.0 ft thick); asphalt was returned to the excavation prior to backfilling.

- Excavation of approximately 1,569 tons of chromium-impacted soil/fill exhibiting hazardous waste characteristics followed by on-site staging within a staging area on the northern portion of the property. Based on the TCLP sampling completed subsequent to staging that soil, approximately ¼ of the stockpile did not exhibit hazardous characteristics and, therefore, was disposed off-site at Modern Landfill, Inc. in Lewiston, New York. The remaining stockpiled soil/fill exhibited hazardous waste characteristics and was disposed off-site at Chemical Waste Management in Lewiston, New York.

- Excavation of approximately 4,509 tons of chromium-impacted soil/fill not exhibiting hazardous waste characteristics followed by off-site transportation (Pariso Trucking) and disposal at Allied Waste (BFI) Landfill in Niagara Falls, New York.

- Placement and compaction of crushed concrete backfill from Metzger Recycling, Inc. in Niagara Falls, New York. Sampling of the backfill upon placement revealed elevated levels of PCBs and SVOCs. The impacted backfill material was excavated to pre-backfill limits and returned to its original source.

- Placement and compaction of gravel backfill from the Lafarge borrow source in Lockport, NY to pre-existing grade.

- Excavation of approximately 850 tons of chromium-impacted soil from the area surrounding a power pole and the eastern boundary of the Site during re-routing

of underground utilities as Site re-development and building construction was initiated. The material was stockpiled and analyzed via TCLP analysis. The results indicated that the soil/fill did not exhibit hazardous characteristics; therefore, the soil/fill was disposed off-site at Modern Landfill, Inc. in Lewiston, New York.

- Placement of soil/fill recovered during staging area clean up in two 55-gallon drums with transportation to the CWM facility for disposal.

The Final Engineering Report (Ref. 10), to be submitted as a separate document, includes the details of the IRM. The Final Engineering Report is supplemented with a Site Management Plan (Ref. 11).

9.0 REMEDIAL ALTERNATIVES EVALUATION

9.1 Remedial Action Objectives

The final remedial measures for the 2250 Factory Outlet Boulevard Site must satisfy Remedial Action Objectives (RAOs). Remedial Action Objectives are site-specific statements that convey the goals for minimizing or eliminating substantial risks to public health and the environment. Appropriate RAOs for the 2250 Factory Outlet Boulevard Site are:

- Removal of chromium-impacted soil/fill within the green-colored fill area to levels protective of human health (restricted-commercial SCO).

- Mitigate contaminant loadings to groundwater from chromium-impacted soil/fill sufficiently to or nearly achieve compliance with groundwater quality standards.

In addition to achieving RAOs, NYSDEC's Brownfield Cleanup Program calls for remedy evaluation in accordance with DER-10 Technical Guidance for Site Investigation and Remediation (Ref. 9). Specifically, the guidance states "When proposing an appropriate remedy, the person responsible for conducting the investigation and/or remediation should identify and develop a remedial action that is based on the following criteria..:"

- **Overall Protection of Public Health and the Environment**. This criterion is an evaluation of the remedy's ability to protect public health and the environment, assessing how risks posed through each existing or potential pathway of exposure are eliminated, reduced, or controlled through removal, treatment, engineering controls, or institutional controls.

- **Compliance with Standards, Criteria, and Guidance (SCGs)**. Compliance with SCGs addresses whether a remedy will meet applicable environmental laws, regulations, standards, and guidance.

- **Long-Term Effectiveness and Permanence**. This criterion evaluates the long-term effectiveness of the remedy after implementation. If wastes or treated residuals remain on-site after the selected remedy has been implemented, the following items are evaluated: (i) the magnitude of the remaining risks (i.e., will there be any significant threats, exposure pathways, or risks to the community and environment from the remaining wastes or treated residuals), (ii) the adequacy of the engineering

and institutional controls intended to limit the risk, (iii) the reliability of these controls, and (iv) the ability of the remedy to continue to meet RAOs in the future.

- **Reduction of Toxicity, Mobility or Volume with Treatment**. This criterion evaluates the remedy's ability to reduce the toxicity, mobility, or volume of Site contamination. Preference is given to remedies that permanently and significantly reduce the toxicity, mobility, or volume of the wastes at the Site.

- **Short-Term Effectiveness**. Short-term effectiveness is an evaluation of the potential short-term adverse impacts and risks of the remedy upon the community, the workers, and the environment during construction and/or implementation. This includes a discussion of how the identified adverse impacts and health risks to the community or workers at the Site will be controlled, and the effectiveness of the controls. This criterion also includes a discussion of engineering controls that will be used to mitigate short term impacts (i.e., dust control measures), and an estimate of the length of time needed to achieve the remedial objectives.

- **Implementability**. The implementability criterion evaluates the technical and administrative feasibility of implementing the remedy. Technical feasibility includes the difficulties associated with the construction and the ability to monitor the effectiveness of the remedy. For administrative feasibility, the availability of the necessary personnel and material is evaluated along with potential difficulties in obtaining specific operating approvals, access for construction, etc.

- **Cost**. Capital, operation, maintenance, and monitoring costs are estimated for the remedy and presented on a present worth basis.

- **Community Acceptance**. This criterion evaluates the public's comments, concerns, and overall perception of the remedy.

9.2 Alternatives Evaluation

Because the IRM achieved removal of the chromium-impacted soil/fill on-Site within the impacted area to below restricted-commercial SCOs, which, in turn, is expected to protect and improve on-Site groundwater quality, the IRM successfully achieved the above-described remedial action objectives. Accordingly the No Further Action alternative is screened below. The No Further Action alternative assumes use of the Site for commercial purposes. In addition, an unrestricted use alternative has been evaluated to provide a basis for comparison to the No Further Action alternative.

In developing and screening the remedial alternatives, NYSDEC's Part 375 regulations require that the reasonable anticipated future land use be factored into the evaluation. The regulations identify 16 criteria that must be considered. These criteria and the resultant outcome for the 2250 Factory Outlet Boulevard Site are presented in Appendix E. As indicated, Appendix E supports commercial redevelopment as the reasonably anticipated future use of the 2250 Factory Outlet Boulevard Site.

9.2.1 No Further Action

"No further action" is defined as performing no additional cleanup activities at the Site beyond that which was already performed at the Site as an IRM (i.e., excavation and off-site disposal of approximately 1,569 tons of hazardous and 5,359 tons of non-hazardous chromium-impacted soil/fill). The efficacy of the No Further Action alternative will continue to be maintained and monitored via the Site Management Plan (Ref. 11). The Site Management Plan addresses two key post-remedial areas: soil/fill management, which assures soil/fill removed from the Site is handled in a safe and environmentally responsible manner and provides methods for addressing unknown areas of impact, if discovered; and the environmental easement, which limits use of the Site for commercial or industrial purposes (restricted use) and precludes use of Site groundwater.

Overall Protection of Public Health and the Environment – Since the IRM achieved removal of all known chromium-impacted soil/fill on the Site to restricted-commercial SCOs, the No Further Action alternative is fully protective of human health and the environment and successfully achieves all RAOs for the Site. The Site Management Plan will address any chromium-impacted areas discovered during post-development maintenance activities.

Compliance with SCGs – The IRM was performed in accordance with applicable, relevant, and appropriate standards, guidance, and criteria. Accordingly, the No Further Action alternative satisfies this criterion.

Long-Term Effectiveness and Permanence – Since the IRM achieved removal of all known chromium-impacted soil/fill exceeding restricted-commercial SCOs, no residual

soil/fill above restricted-commercial SCOs remains on the Site. As such, the No Further Action alternative is expected to provide long-term effectiveness and permanence.

Reduction of Toxicity, Mobility, or Volume with Treatment – Through removal of all identified chromium-impacted soil/fill exceeding restricted-commercial SCOs, the IRM permanently and significantly reduced the toxicity, mobility, and volume of Site contamination. Accordingly, the No Further Action alternative satisfies this criterion.

Short-Term Effectiveness – The short-term adverse impacts and risks to the community, workers, and environment during implementation of the IRM were effectively controlled. Temporary safety construction fencing was placed around the outer perimeter of the work area to distinguish the work zone and discourage trespassing. During soil/fill excavation and loading activities, dust monitoring was performed to assure conformance with NYSDOH-approved community air monitoring action levels. Erosion and sedimentation control were accomplished at the work perimeter by installing continuous double-wall silt fencing prior to the initiation of excavation activities; the silt fencing remained on the work perimeter until the backfill was placed. The potential for chemical exposures and physical injuries were reduced through safe work practices, proper personal protection, environmental monitoring, establishment of work zones and Site control, and appropriate decontamination procedures. The IRM achieved the RAOs for the Site in approximately 4 months.

Implementability – No technical or action-specific administrative implementability issues were associated with implementation of the IRM.

Cost – The capital cost of the IRM was approximately $500,000. Annual certification is estimated at $2,000 per year.

Community Acceptance – The RI/AAR/IRM Work Plan was advertised and made available for comment with the BCP application. No comments opposing the work were received.

9.2.2 Unrestricted Use Alternative

An Unrestricted Use alternative would necessitate remediation of all soil/fill where chromium concentrations exceed the unrestricted use SCO per 6NYCRR Part 375. At a minimum, this would involve additional remedial work in two areas (see Figure 5). For Unrestricted Use scenarios, excavation and off-site disposal of impacted soil/fill is generally regarded as the most applicable remedial measure, because institutional controls cannot be used to supplement the remedy. As such, the Unrestricted Use alternative assumes that Area 1 would be excavated to approximately 4 fbgs and Area 2 would be excavated to approximately 2 fbgs for disposal at an off-site commercial solid waste landfill. The estimated total volume of impacted soil/fill that would be removed from these areas is approximately 18,550 cubic yards. This alternative assumes that no groundwater remediation or long-term monitoring is required.

Overall Protection of Public Health and the Environment – The Unrestricted Use alternative would achieve the corresponding Part 375 SCOs, which are designed to be protective of human health under any reuse scenario.

Compliance with SCGs – Similar to the IRM soil/fill removal activities, the Unrestricted Use alternative would need to be performed in accordance with applicable, relevant, and appropriate standards, guidance, and criteria.

Long-Term Effectiveness and Permanence – The Unrestricted Use alternative would achieve removal of all residual impacted soil/fill; therefore, no soil/fill exceeding the unrestricted use SCOs would remain on the Site. As such, the Unrestricted Use alternative would provide long-term effectiveness and permanence. Post-remedial monitoring and certifications would not be required.

Reduction of Toxicity, Mobility, or Volume with Treatment – Through removal of all impacted soil/fill, the Unrestricted Use alternative would permanently and significantly reduce the toxicity, mobility, and volume of Site contamination.

Short-Term Effectiveness **–** The short-term adverse impacts and risks to the community, workers, and environment during implementation of the Unrestricted Use alternative are not considered significant and are controllable, but would increase the duration of time community, workers, and the environment is exposed to fugitive dust and off-site exposures during remediation.

Implementability **–** No technical implementability issues would be encountered in construction of the Unrestricted Use alternative. Administrative implementability issues may include the need for rezoning of the area, since residential, agricultural, and other unrestricted uses are not consistent with current zoning or the reasonably anticipated future use of the Site.

Cost **–** The capital cost of implementing an Unrestricted Use alternative (post IRM) is estimated at $2.9 million (see Table 5). Post-remedial groundwater monitoring and annual certification costs would not be incurred.

Community Acceptance – Community acceptance will be evaluated based on comments to be received from the public in response to Fact Sheets and other planned Citizen Participation activities.

9.3 Recommended Remedial Measure

Based on the above screening and the conclusions of the Remedial Investigation and Final Engineering Report (Ref. 10), the IRM fully satisfies the remedial action objectives and is fully protective of human health and the environment. Accordingly, No Further Action with the implementation of a Site Management Plan is the recommended final remedial approach for the 2250 Factory Outlet Boulevard Site.

10.0 REFERENCES

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2. Benchmark Environmental Engineering and Science, PLLC. *Supplemental Phase II Investigation, 2250 Factory Outlet Boulevard, Niagara Falls, New York.* June 2006.

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4. New York State Museum & Science Service. *Map & Chart Series No. 15, Surficial Geologic Map of New York, Niagara Sheet.* 1988.

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6. Maxim-Empire Soils Investigation, Inc. *Phase I Environmental Site Assessment (ESA) for Grossman's Building Supply Facility, 2250 Third Avenue, Niagara Falls, New York.* November 1995.

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8. Benchmark Environmental Engineering and Science, PLLC. *Remedial Investigation / Alternative Analysis Report / Interim Remedial Measures Work Plan, 2250 Factory Outlet Boulevard, Niagara Falls, New York.* September 2006, Revised December 2006.

9. New York State Department of Environmental Conservation. *Draft DER-10; Technical Guidance for Site Investigation and Remediation.* December 2002.

10. Benchmark Environmental Engineering and Science, PLLC. *Final Engineering Report, 2250 Factory Outlet Boulevard, Town of Niagara, New York.* August 2007.

11. Benchmark Environmental Engineering and Science, PLLC. *Site Management Plan, 2250 Factory Outlet Boulevard, Town of Niagara, New York.* August 2007.

TABLES

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TABLE 1

CHROMIUM ANALYTICAL DATA FOR SOIL[1]

RI / AAR / IRM Report
2250 Factory Outlet Boulevard

Sample Location	Sample Interval (fbgs)	Total Chromium (mg/kg)	Hexavalent Chromium (mg/kg)	Trivalent Chromium (mg/kg)[2]	TCLP Chromium (mg/L)	Comments
Remedial activities performed by Benchmark December 2006						
SB-12	1-2	22.3 J	NS	NS	NS	No discoloration in the sample
SB-13	2-3	76 J	NS	NS	NS	No discoloration in the sample
SB-14	1.5-2.5	39.2 J	NS	NS	NS	No discoloration in the sample
SB-15	1-2	4.1 J	NS	NS	NS	No discoloration in the sample
SB-16	1-2	5.1 J	NS	NS	NS	No discoloration in the sample
SB-17	1-2	2940 J	ND	**2940 J**	3.85	Sample was collected from green-colored fill
SB-17	4-5	103 J	NS	NS	NS	Sample was collected from native soil beneath green-colored fill
SB-18	1-2	29.5 J	NS	NS	NS	No discoloration in the sample
SB-19	1-2	25.9 J	NS	NS	NS	No discoloration in the sample
SB-20	1-2	84.9 J	NS	NS	NS	No discoloration in the sample
SB-21	0.5-1.5	57.5 J	NS	NS	NS	No discoloration in the sample
SB-22	1-2	22..5 J	NS	NS	NS	No discoloration in the sample
SB-23	1-2	37.1 J	NS	NS	NS	No discoloration in the sample
TP-1/ SL#1	0-2	3690 J	4.7 J	**3690 J**	4.59	Sample was collected from green-colored fill
Blind duplicate #1		4050 J	129 J	**3921 J**	NS	Sample was collected from green-colored fill
TP-1/ SL#1	2-2.5	76.3 J	NS	NS	NS	Sample was collected from native soil beneath green-colored fill
TP-1/ SL#2	0-2	5.2 J	ND	5.2 J	NS	Sample collected from fill material adjacent to green-colored fill
TP-2	0-2.5	7980 J	358 J	**7622 J**	**6.91**	Sample was collected from green-colored fill
Blind duplicate #2	0-2.5	6830 J	304 J	**6526 J**	**6.7**	Sample was collected from green-colored fill
TP-2	2.5-3	33.6 J	NS	NS	NS	Sample was collected from native soil beneath green-colored fill
TP-3/ SL#1	0-2	6000 J	214 J	**5786 J**	3.57	Sample was collected from green-colored fill
TP-3/ SL#1	2-3	35.6 J	NS	NS	NS	Sample was collected from native soil beneath green-colored fill
TP-3/ SL#2	0-2	4.6 J	ND	4.6 J	NS	Sample collected from fill material adjacent to green-colored fill
TP-4	0-2.5	5410 J	257 J	**5153 J**	NS	Sample was collected from green-colored fill
TP-4	2.5-3.5	30.9 J	NS	NS	NS	Sample was collected from native soil beneath green-colored fill
TP-5/ SL#1	2-2.5	2460 J	31.1 J	**2430 J**	0.724	Sample was collected from green-colored fill
TP-5/ SL#1	2.5-3	32.1 J	NS	NS	NS	Sample was collected from native soil beneath green-colored fill
TP-5/ SL#2	2-2.5	45.5 J	ND	45.5 J	NS	Sample collected from fill material adjacent to green-colored fill
TP-6/ SL#1	0-3	5100 J	158 J	**4942 J**	**5.31**	Sample was collected from green-colored fill
TP-6/ SL#1	3-3.5	45.6 J	NS	NS	NS	Sample was collected from native soil beneath green-colored fill
TP-6/ SL#2	0-3	2.3 J	ND	2.3 J	NS	Sample collected from fill material adjacent to green-colored fill
TP-7	0-3	4900 J	156 J	**4744 J**	4.73	Sample was collected from green-colored fill
TP-8	0-2	2740 J	52.7 J	**2690 J**	0.199	Sample was collected from green-colored fill
TP-9	0-3	3250 J	32.7 J	**3220 J**	1.83	Sample was collected from green-colored fill
TP-10	0-1.5	964 J	30.6 J	933 J	2.3	Sample was collected from green-colored fill
TP-11	0-2	4830 J	113 J	**4717 J**	**8.97**	Sample was collected from green-colored fill
TP-12	1.5-2.5	6710 J	227 J	**6480 J**	3.4	Sample was collected from green-colored fill
Sampling performed by Benchmark June 2006						
SB - 2	0.0 - 1.5	66	NS	NS	NS	No discoloration in the sample
SB - 3	0.0 - 1.5	34.7	NS	NS	NS	No discoloration in the sample
SB - 4	0.0 - 2.3	30.2	NS	NS	NS	No discoloration in the sample
SB - 5	0.0 - 4.0	32.1	NS	NS	NS	No discoloration in the sample
SB - 6	0.0 - 4.0	34	NS	NS	NS	No discoloration in the sample
SB - 7	0.0 - 2.0	34.8	NS	NS	NS	No discoloration in the sample
SB - 8	0.0 - 2.0	10.5	NS	NS	NS	No discoloration in the sample
SB - 9	0.0 - 1.1	13.7	NS	NS	NS	No discoloration in the sample
SB - 10	0.0 - 2..5	38	NS	NS	NS	No discoloration in the sample
SB - 11	1.0 - 2.5	44	NS	NS	NS	No discoloration in the sample

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TABLE 1

CHROMIUM ANALYTICAL DATA FOR SOIL[1]

RI / AAR / IRM Report
2250 Factory Outlet Boulevard

Sample Location	Sample Interval (fbgs)	Total Chromium (mg/kg)	Hexavalent Chromium (mg/kg)	Trivalent Chromium (mg/kg)[2]	TCLP Chromium (mg/L)	Comments
Sampling performed by Panamerican Environmental March 2006						
BH2 - GM - 01	1.0 -3.0	16,900	NS	NS	**11**	Sample was collected from green-colored fill
BH2 - GM - 02	1.0 - 3.0	69.4	NS	NS	NS	No discoloration in the sample
BH2 - GM - 03	1.0 - 2.5	5,140	NS	NS	NS	Sample was collected from green-colored fill
BH2 - GM - 04	1.0 - 3.0	4,650	NS	NS	NS	Sample was collected from green-colored fill
BH2 - GM - 05	1.0 - 3.0	6,470	NS	NS	NS	Sample was collected from green-colored fill
BH2 -GM - 06	1.0 - 2.5	4.8	NS	NS	NS	No discoloration in the sample
BH2 - GM - 07	2.0 - 3.0	8.4	NS	NS	NS	No discoloration in the sample
BH2 - GM - 08	2.0 - 3.0	22.3	NS	NS	NS	No discoloration in the sample
BH2 - GM - 09	1.0 - 2.5	64.6	NS	NS	NS	No discoloration in the sample
BH2 - GM - 10	2.0 - 3.5	26.9	NS	NS	NS	No discoloration in the sample
Sampling performed by Panamerican Environmental February 2006						
BH - GM - 04	1.0 - 3.0	23.2	NS	NS	NS	No discoloration in the sample
BH - GM - 14	1.0 - 3.0	4780	NS	NS	NS	Sample was collected from green-colored fill
BH - GM - 18	1.0 - 2.0	194	NS	NS	NS	No discoloration in the sample
BH - GM - 20	2.0 - 3.5	241	NS	NS	NS	No discoloration in the sample
NYSDEC Part 375-6 Commercial SCOs (mg/kg)		NA	**400**	**1,500**	NA	
Characteristic hazardous chromium threshold (mg/L)		NA	NA	NA	**5**	

Notes:
1. Data collected prior to IRM implementation
2. Trivalent chromium concentration is calculated as total chromium concentration minus hexavalent chromium concentration

Definitions:
SB = soil boring
TP = test pit
fbgs = feet below ground surface
NA = not applicable
ND = not detected above the laboratory method detection limit
NS = not sampled for that parameter
mg/kg = milligrams per kilogram
mg/L = milligrams per liter
J =estimated value
TCLP = toxicity characteristic leaching procedure

BOLD	Indicates exceedance of NYSDEC Part 375-6 restricted commercial soil cleanup objectives (SCOs)
BOLD	Indicates exceedance of USEPA TCLP threshold for characteristic hazardous chromium (mg/L)

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TABLE 2

ON-SITE SURFACE/SUBSURFACE SOIL ANALYTICAL DATA SUMMARY
FOR SITE CHARACTERIZATION

RI / AAR / IRM Report
2250 Factory Outlet Boulevard Site

PARAMETER[1]	Sample Location and Depth (fbgs)																			Unrestricted (ppm) [3]	Restricted - Commercial (ppm) [3]
	BENCHMARK (DECEMBER 2006)					PANAMERICAN (FEBRUARY 2006)				PANAMERICAN (MARCH 2006)											
	Subsurface Soil Samples			Subsurface Soil Samples		Subsurface Soil Samples				Subsurface Soil Samples											
	MW-1 (6.0-8.0)	MW-2 (2.0-4.0)	MW-3 (8.0-10.0)	SS-1,2 COMP	Blind Dup[2]	BH - GM - 04 (1.0 - 2.5)	BH - GM - 14 (1.0 - 3.0)	BH - GM - 18 (1.0 - 2.0)	BH - GM - 20 (2.0 - 3.5)	BH2 - GM - 01 (1.0 - 3.0)	BH2 - GM - 02 (1.0 - 3.0)	BH2 - GM - 03 (1.0 - 2.5)	BH2 - GM - 04 (1.0 - 3.0)	BH2 - GM - 05 (1.0 - 3.0)	BH2 - GM - 06 (1.0 - 2.5)	BH2 - GM - 07 (2.0 - 3.0)	BH2 - GM - 08 (2.0 - 3.0)	BH2 - GM - 09 (1.0 - 2.5)	BH2 - GM - 10 (2.0 - 3.5)		
TCL VOCs (mg/kg)																					
Acetone	NS	NS	NS	NS	NS	0.028 J	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.05**	**500** [5]
2 - Butanone (MEK)	NS	NS	NS	NS	NS	0.004 J	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.12**	**500** [5]
Carbon Disulfide	NS	NS	NS	NS	NS	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**--**	**--**
Chloroform	NS	NS	NS	NS	NS	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.37**	**350**
Ethylbenzene	NS	NS	NS	NS	NS	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**1**	**390**
Isopropylbenzene	NS	NS	NS	NS	NS	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**--**	**--**
Methylene Chloride	NS	NS	NS	NS	NS	0.006	0.007	ND	0.006	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.05**	**500** [5]
Methylcyclohexane	NS	NS	NS	NS	NS	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**--**	**--**
TOTAL Xylenes	NS	NS	NS	NS	NS	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.26**	**500** [5]
Total VOCs (mg/kg)						***0.038***	***0.007***	***0***	***0.006***												
TCL SVOCs (mg/kg)																					
Acenaphthene	ND	ND	ND	0.03 J	0.026 J	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**20**	**500** [5]
Acenaphthylene	ND	ND	ND	0.019 J	0.075 J	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**100** [4]	**500** [5]
Anthracene	ND	ND	ND	0.053 J	0.1 J	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**100** [4]	**500** [5]
Benzo (a) anthracene	ND	ND	ND	0.26 J	0.48	0.32	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**1** [6]	**5.6**
Benzo (b) fluoranthene	ND	ND	ND	0.44	0.94	0.37	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**1** [6]	**5.6**
Benzo (k) fluoranthene	ND	ND	ND	0.14 J	0.25 J	0.4	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.8** [6]	**56**
Benzo (a) pyrene	ND	ND	ND	0.28 J	0.52	0.21	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**1** [6]	**1**
Benzo (g,h,i) perylene	ND	ND	ND	0.12 J	0.14 J	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**100**	**500** [5]
Bis(2 - ethylhexyl) phthalate	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**--**	**--**
Butyl benzyl phthalate	ND	ND	ND	0.075 J	ND	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**--**	**--**
Carbazole	ND	ND	ND	0.034 J	0.069 J	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**--**	**--**
Chrysene	ND	ND	ND	0.3 J	0.56	0.24	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**1** [6]	**56**
Dibenzo (a,h) anthracene	ND	ND	ND	0.049 J	0.068 J	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.33** [7]	**0.56**
Dibenzofuran	ND	ND	ND	0.014 J	0.028 J	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**--**	**--**
Di - n - butyl phthalate	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**--**	**--**
Di - n - octyl phthalate	ND	ND	ND	ND	0.025 J	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**--**	**--**
Fluoranthene	ND	ND	ND	0.43	0.79	0.44	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**100** [4]	**500** [5]
Fluorene	ND	ND	ND	ND	0.029 J	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**30**	**500** [5]
Indeno (1,2,3 - cd) pyrene	ND	ND	ND	0.16 J	0.22 J	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.5** [6]	**5.6**
2 - Methylnaphthalene	ND	ND	ND	0.016 J	0.04 J	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**--**	**--**
Naphthalene	ND	ND	ND	0.019 J	0.033 J	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**12**	**500** [5]
4-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**--**	**--**
Pentachlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.8** [7]	**6.7**
Phenanthrene	ND	ND	ND	0.22 J	0.36 J	0.27	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**100**	**500** [5]
Phenol	ND	ND	ND	0.036 J	ND	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.33** [7]	**500** [5]
Pyrene	ND	ND	ND	0.32 J	0.5	0.28	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**100**	**500** [5]
Total SVOCs (mg/kg)	***0.000***	***0.000***	***0.000***	***3.02***	***5.25***	***2.53***	***0***	***0***	***0***												
TAL Metals (mg/Kg)																					
Aluminum	13800	23200	14400	18000	7690	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**--**	**--**
Antimony	ND	ND	ND	ND	9.7 N	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**--**	**--**
Arsenic	1.9 N J	3.1 N J	3.5 N J	7.6 N J	**15.8 N J**	4.2	ND	4.8	7.7	ND	9.4	ND	ND	ND	3.8	4.4	3.6	4.8	3	**13** [6]	**16**
Barium	186	149	125	135	100	238	64	148	160	101	118	74	117	128	6.2	16.3	147	87.5	148	**350** [6]	**400**
Beryllium	ND	1.1 BE*	ND	0.98	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**7.2**	**590**
Cadmium	0.25 B	0.24 B	0.2 B	0.96	0.95	0.38	0.41	ND	ND	ND	0.61	ND	ND	ND	1.5	0.36	0.41	0.71	**26.9**	**2.5** [6]	**9.3**
Calcium	84400 *	10900 *	36900 *	17500 *	13900 *	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**--**	**--**
Chromium	18.8 N J	20.5 N J	20 N J	**45.5 N J**	15.8 N J	23.2	**4780**	**194 N**	**241 N**	**16900**	**69.4**	**5140**	**4650**	**6470**	4.8	8.4	22.3	**64.6**	16.5	**30** [6]	**1500**
Cobalt	9.0	13.3	9.6	13	6.7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**--**	**--**
Copper	13.9 N J	19.8 N J	19.3 N J	33.5 N J	**68.8 N J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**50**	**270**
Iron	22000	31300	24500	26900	22400	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**--**	**--**
Lead	4.9	9.9	7.2	**87.6**	**219**	22.2	13.4	30.8	18.8	3.7	34.5	11.9	5.4	13	23.3	21.9	37.9	27.1	ND	**63** [6]	**1000**
Magnesium	9250	12200	11100	8540	3960	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**--**	**--**
Manganese	455 *	341 *	406 *	478 *	819 *	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**1600** [6]	**10000**
TAL Metals (mg/kg)																					

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TABLE 2

ON-SITE SURFACE/SUBSURFACE SOIL ANALYTICAL DATA SUMMARY
FOR SITE CHARACTERIZATION

RI / AAR / IRM Report
2250 Factory Outlet Boulevard Site

PARAMETER[1]	Sample Location and Depth (fbgs)																			Unrestricted (ppm) [3]	Restricted - Commercial (ppm) [3]
	BENCHMARK (DECEMBER 2006)					PANAMERICAN (FEBRUARY 2006)				PANAMERICAN (MARCH 2006)											
	Subsurface Soil Samples			Subsurface Soil Samples		Subsurface Soil Samples				Subsurface Soil Samples											
	MW-1 (6.0-8.0)	MW-2 (2.0-4.0)	MW-3 (8.0-10.0)	SS-1,2 COMP	Blind Dup[2]	BH - GM - 04 (1.0 - 2.5)	BH - GM - 14 (1.0 - 3.0)	BH - GM - 18 (1.0 - 2.0)	BH - GM - 20 (2.0 - 3.5)	BH2 - GM - 01 (1.0 - 3.0)	BH2 - GM - 02 (1.0 - 3.0)	BH2 - GM - 03 (1.0 - 2.5)	BH2 - GM - 04 (1.0 - 3.0)	BH2 - GM - 05 (1.0 - 3.0)	BH2 - GM - 06 (1.0 - 2.5)	BH2 - GM - 07 (2.0 - 3.0)	BH2 - GM - 08 (2.0 - 3.0)	BH2 - GM - 09 (1.0 - 2.5)	BH2 - GM - 10 (2.0 - 3.5)		
Mercury	ND	ND	ND	0.143	0.174	0.069	0.074	0.062	ND	0.08	**0.26**	ND	ND	ND	ND	0.029	0.062	0.086	0.026	**0.18** [6]	**2.8**
Nickel	23.1	**34.4**	25.3	27.4	20.5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**30**	**310**
Potassium	2080	2040	2250	1900	911	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
Selenium	1.3 B	2.3 B	1.5 B	2 B	2.3 B	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**3.9** [6]	**1500**
Silver	ND	ND	ND	ND	0.14 B	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	ND	**2**	**1500**
Sodium	125 B	102 B	126 B	64 B	71.8 B	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
Thallium	0.93 B	1.1 B	1.1 B	1.5 B	1.1 B	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
Vanadium	22.2 N	33.7 N	25.4 N	33.1 N	17.7 N	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
Zinc	51.7 NE J	75.1 NE J	61.5 NE J	**134 NE J**	**167 NE J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**109** [6]	**10000**
Wet Chemistry Analysis (units as indicated)																					
Leachable pH (S.U.)	7.28	7.38	7.47	7.1	7.35	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
PCBs (mg/kg)																					
PCB Aroclor 1254	NS	NS	NS	NS	NS	ND	**0.14**	0.052	0.056	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.1**	
Pesticides/Herbicides (mg/kg)																					
2,4-D	ND	ND	ND	0.16 J	0.012 J	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
beta-BHC	ND	ND	ND	0.00082 J	ND	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.036**	**3**
4,4' - DDE	ND	ND	ND	0.00088 JP	ND	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.0033** [7]	**62**
4,4' - DDT	ND	ND	ND	**0.0043 JP NJ**	**ND**	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.0033** [7]	**47**
Endrin ketone	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--
Endosulfan II	ND	ND	ND	0.0022 JP NJ	ND	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**2.4**	**200**
Dieldrin	ND	ND	ND	ND	ND	ND	**0.014 J**	0.0017 J	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.005** [6]	
Methoxychlor	ND	ND	ND	ND	ND	ND	ND	ND		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--

Notes:

1. Only those parameters detected at a minimum of one sample location are presented in table; all other compounds reported as non-detect.
2. Blind duplicate for sample SS-1,2 COMP.
3. Values per NYSDEC Part 375 Soil Cleanup Objectives (December 2006).
4. The SCOs for residential use were capped at a maximum value of 100 ppm.
5. The SCOs for commercial use were capped at a maximum value of 500 ppm.
6. Rural soil background concentration used where calculated SCO was lower than than rural background.
7. Contract required quantitation limit (CRQL) use where calculated SCO was lower than CRQL.

BOLD	= Analytical result exceeds Unrestricted SCO.
BOLD	= Analytical result exceeds Restricted-Commercial SCO.

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TABLE 3

GROUNDWATER ANALYTICAL DATA SUMMARY

RI / AAR / IRM Report
2250 Factory Outlet Boulevard

PARAMETER[1]	Sample Location					GWQS/GV (ug/L) [3]
	MW-1	Blind Dup[2]	MW-2	MW-3	MW-4	
TCL VOCs (ug/L)						
Tetrachloroethene	1 J	U	U	U	NA	**5**
TAL Total Metals (ug/L)						
Aluminum	1080 N* J	492 N* J	945 N* J	151 BN* J	18000 N* J	**--**
Arsenic	U	U	U	U	7.4 B	**25**
Barium	34.3 B	29.7 B	36.8 B	26.4 B	111 B	**1,000**
Beryllium	0.42 B	U	U	0.32 B	0.71 B	**3**
Cadmium	U	U	U	U	0.65 B	**5**
Calcium	359000	355000	148000	397000	245000	**--**
Chromium	2.9 B	2.2 B	1.4 B	U	**75.9**	**50**
Cobalt	2.4 B	2.1 B	1.1 B	U	13 B	**--**
Copper	2.9 B	2.2 B	1.9 B	U	34.6	**200**
Iron	**1710 N J**	**891 N J**	**712 N J**	**315 N J**	**24700 N J**	**300**
Lead	U	U	U	U	**29.5**	**25**
Magnesium	**261000**	**259000**	**209000**	**244000**	**124000**	**35000 ****
Manganese	**455 N**	**446 H**	48.2 N	136 N	**1340 N**	**300**
Nickel	3.4 B	2.4 B	2.9 B	3 B	30.7 B	**100**
Potassium	3650 B	3490 B	2940 B	3470 B	6340	**--**
Sodium	**53900**	**53600**	**4060000 J**	**61000**	**77500 J**	**20000**
Vanadium	1.4 B	U	1.6 B	U	35.9 B	**--**
Zinc	10.7 B	7.1 B	7.7 B	4 B	170	**--**
TAL Soluble Metals (ug/L)						
Arsenic	UJ	UJ	UJ	UJ	7.2 B J	**25**
Barium	26.4 B J	287.2 B J	33.1 B J	27.1 B J	13.4 B J	**1,000**
Beryllium	0.3 B J	0.26 B J	UJ	0.27 B J	UJ	**3**
Calcium	369000 J	385000 J	153000 J	412000 J	105000 J	**--**
Chromium	UJ	UJ	UJ	UJ	0.95B J	**50**
Cobalt	1.8 B J	1.4 B J	UJ	1.2 B J	1 B J	**--**
Copper	1.3 B J	UJ	UJ	UJ	4.4 B J	**200**
Iron	UJ	UJ	UJ	UJ	36.7 B J	**300**
Magnesium	**262000 J**	**269000 J**	**215000 J**	**254000 J**	**75900 J**	**35000 ****
Manganese	**410 J**	**330 J**	49.1 J	144 J	171 J	**300**
Nickel	1.7 B J	2.5 B J	2.1 B J	2.3 B J	5.6 B J	**100**
Potassium	3980 BE J	4540 BE J	3580 BE J	3950 BE J	1990 J	**--**
Selenium	U	8.2 B J	U	U	U	**10**
Sodium	**54900 J**	**56500 J**	**44900 J**	**64200 J**	**94300 J**	**20000**

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TABLE 3

GROUNDWATER ANALYTICAL DATA SUMMARY

RI / AAR / IRM Report
2250 Factory Outlet Boulevard

PARAMETER[1]	Sample Location					GWQS/GV (ug/L) [3]
	MW-1	Blind Dup[2]	MW-2	MW-3	MW-4	
TAL Soluble Metals (ug/L)						
Vanadium	UJ	UJ	UJ	UJ	3.4 B J	--
Zinc	5.4 B J	4.7 B J	2.8 B J	2.8 B J	16.1 B 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. Blind duplicate collected from MW-1.
3. Values per NYSDEC Ambient Water Quality Standards/Guidance Values and Groundwater Effluent Limitations (TOGS 1.1.1). Class GA Groundwater Standard presented.

Definitions:

NA = Sample not analyzed for parameter.
B (organic) = Analyte also found in the associated blank.
B (inorganic) = Value is between the IDL and the CRDL.
* = Indicates analysis is not within quality control limits.
** = Indicates guidance value
N = Spike sample recovery is not within quality control limits.
E = Indicates value estimated or not reported due to the presence of interferences.
H = Indicates analytical holding time exceedance; therefore, value should be considered an estimate.
U= undetected above method detection limit.
BOLD = Result exceeds GA Groundwater Standard/Guidance Value.

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TABLE 4

BENCH-SCALE SOIL TREATABILITY TESTING RESULTS

RI / AAR / IRM Report
2250 Factory Outlet Boulevard Site

Sample	Treatment (Trial 1)				Treatment (Trial 2)					TCLP Chromium Regulatory Level (mg/L)
	Initial TCLP	0.5% Portland Cement	2% Portland Cement	5% Portland Cement	Initial TCLP	2% Ferrous Sulfate	5% Ferrous Sulfate	15% Lime	10% Portland Cement	
Sample 1 (TP-2)	**7.85**	**7.52**	**7.45**	**5.69**	**6.6**	2.85	4.32	**5.91**	**12.3**	**5**
Sample 2 (TP-6)	**6.44**	**6.79**	**9.75**	**12.7**	**6.04**	2.69	2.57	**5.49**	**12.2**	**5**
Sample 3 (TP-11)	**11.3**	4.03	3.9	4.2	NT	NT	NT	NT	NT	**5**

Notes:
NT = Not tested
BOLD = Exceedance of 6 NYCRR Part 261.24 Toxicity Characteristic Leaching Procedure (TCLP) Regulatory Level for Chromium.

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TABLE 5

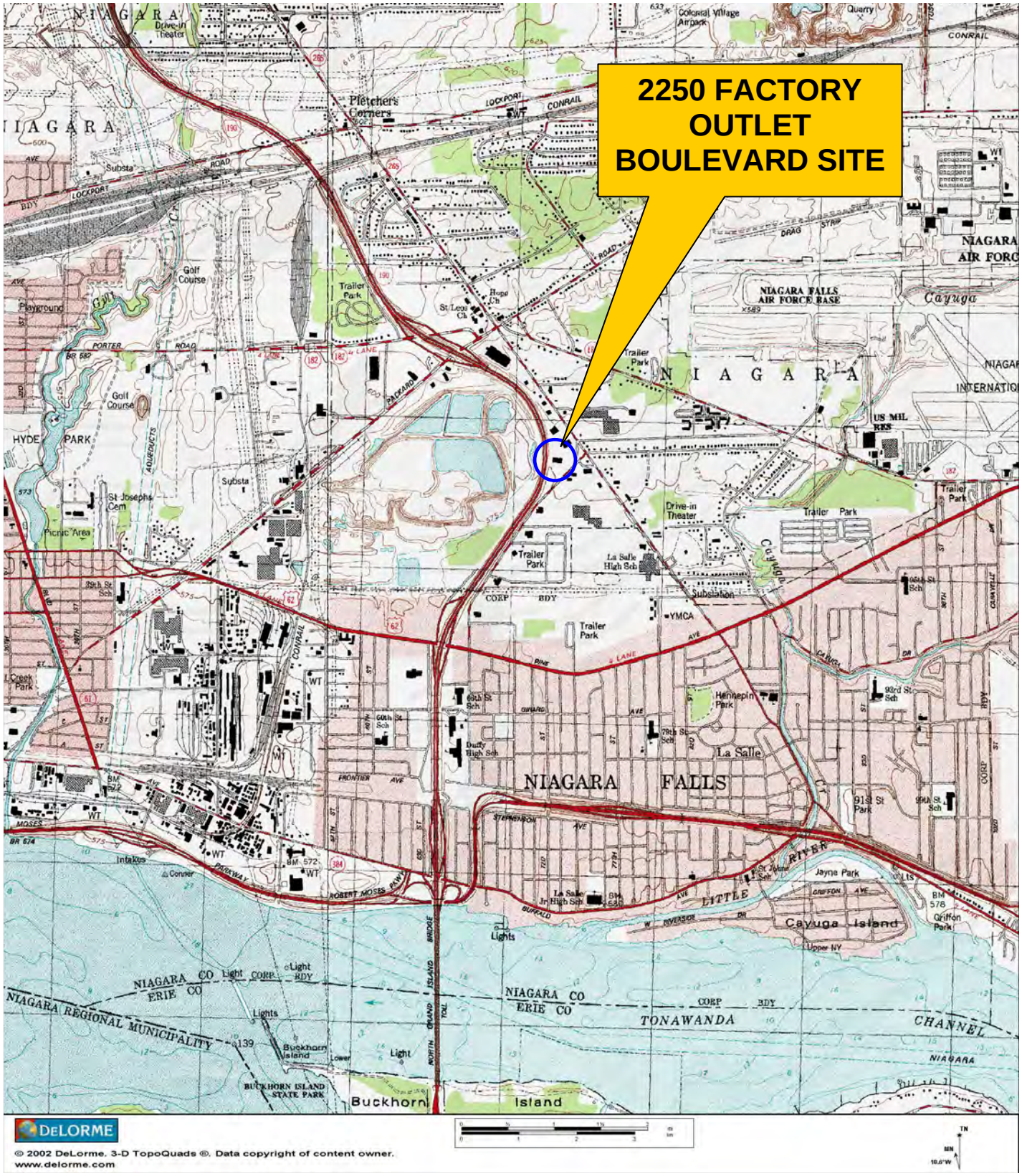
COST ESTIMATE FOR UNRESTRICTED USE ALTERNATIVE

RI/AAR/IRM REPORT
2250 Factory Outlet Boulevard Site

Item	Quantity	Units	Unit Cost	Total Cost
Impacted Soil/Fill Removal				
Soil/Fill Excavating & Hauling - Area 1	16152	CY	$ 20.00	$ 323,040
Soil/Fill Excavating & Hauling - Area 2	2406	CY	$ 20.00	$ 48,123
Disposal at TSDF	27837	TON	$ 50.00	$ 1,391,861
Verification Sampling (total chromium)	36	EA	$ 25.00	$ 900
Subtotal:				**$ 1,763,924**
Site Restoration				
Backfill, Place & Compact	18558	CY	$ 15.00	$ 278,372
Subtotal:				**$ 278,372**
Subtotal Capital Cost				**$ 2,042,296**
Contractor Mobilization/Demobilization (5%)				$ 102,115
Health and Safety (2%)				$ 40,846
Engineering/Contingency (35%)				$ 714,804
Total Capital Cost				**$ 2,900,061**

FIGURES

FIGURE 1



FILEPATH: F:\cad\benchmark\benderson\2250 factory outlet boulevard\ri report\august 2007\figure 1; site location and vicinity map.dwg

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

726 EXCHANGE STREET
SUITE 624
BUFFALO, NEW YORK 14210
(716) 856-0599

PROJECT NO.: 0105-003-300

DATE: SEPTEMBER 2007

DRAFTED BY: NTM

SITE LOCATION AND VICINITY MAP

RI / AAR / IRM REPORT

2250 FACTORY OUTLET BOULEVARD SITE
NIAGARA FALLS, NEW YORK

PREPARED FOR

NF-3rd ASSOCIATES, LLC

DATE: SEPTEMBER 2001
DRAFTED BY: BCH/NTM

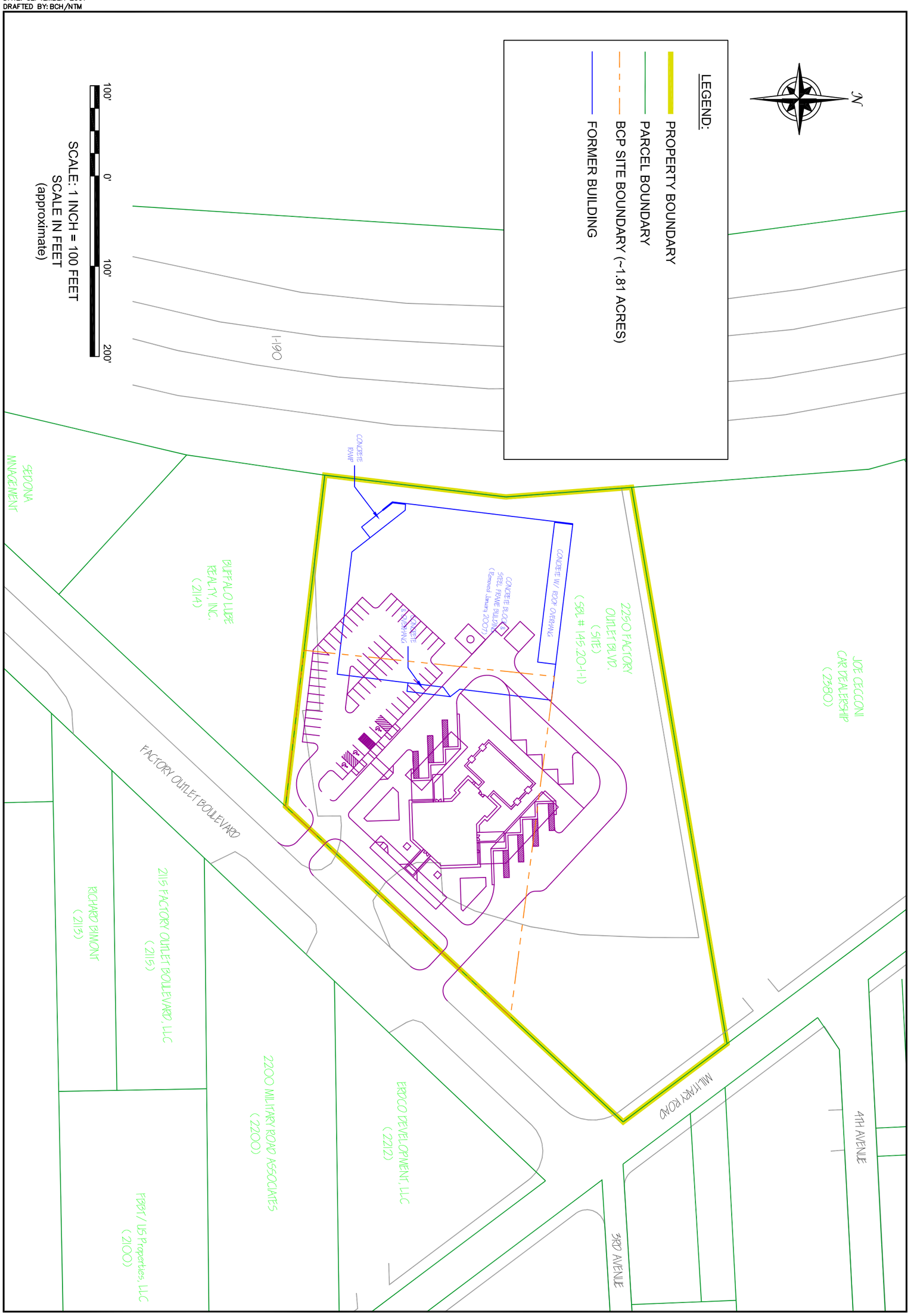


FIGURE 2

SITE PLAN

RI / AAR / IRM REPORT

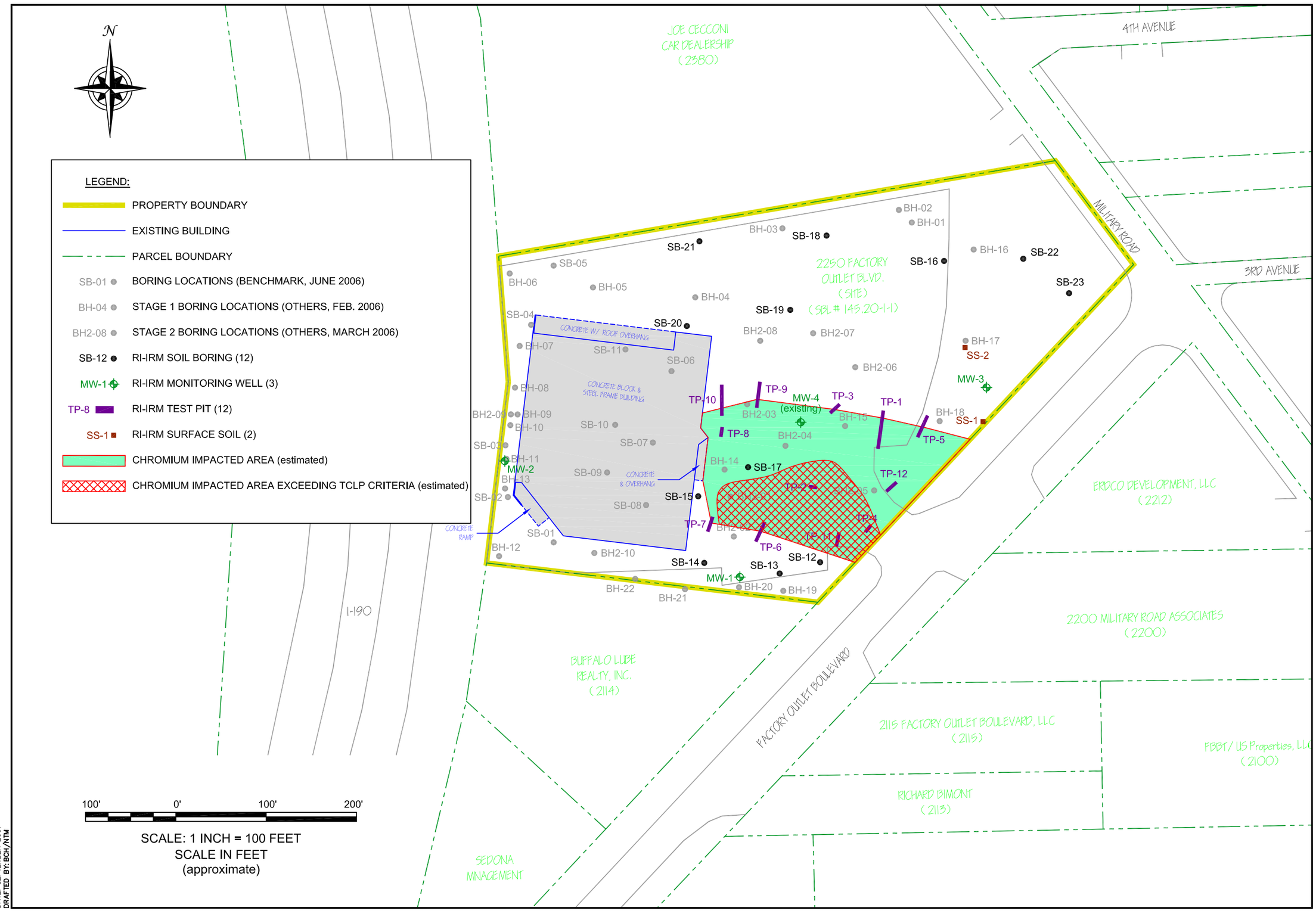
2250 FACTORY OUTLET BOULEVARD SITE
NIAGARA FALLS, NEW YORK

PREPARED FOR
NF-3rd ASSOCIATES, LLC

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC
726 EXCHANGE STREET
SUITE 624
BUFFALO, NEW YORK 14210
(716) 856-0599

JOB NO.: 0105-003-400

F:\CAD\Benchmark\Benderson\2250 Factory Outlet Boulevard\RI Report\August 2007\Figure 3; RI-IRM Activities.dwg, 11/19/2007 9:02:05 AM



DATE: SEPTEMBER 2007
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JOB NO.: 0105-003-300

INVESTIGATION LOCATIONS

RI / AAR / IRM REPORT

2250 FACTORY OUTLET BOULEVARD SITE
NIAGARA FALLS, NEW YORK

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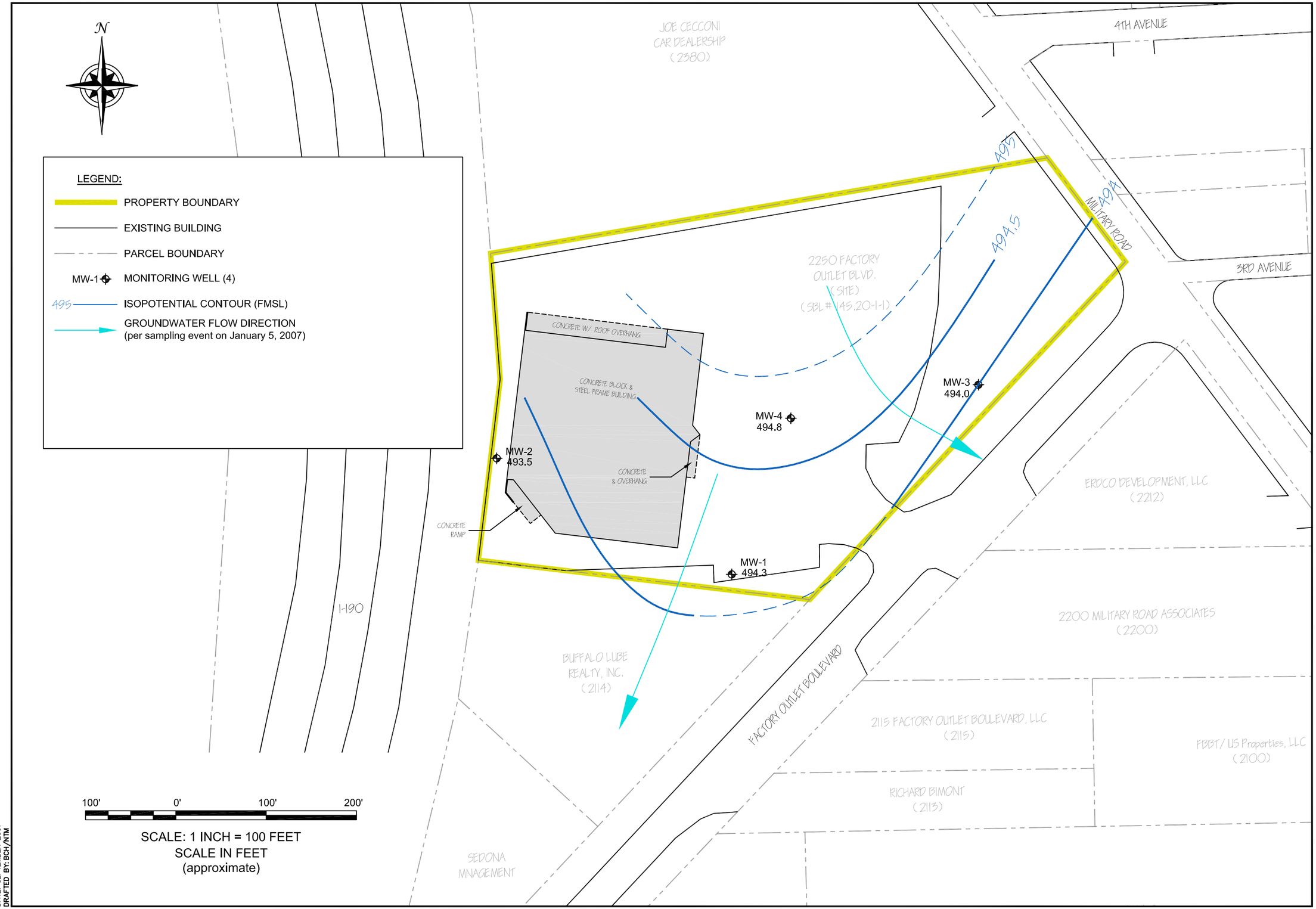
FIGURE 3

F:\CAD\Benchmark\Benderson\2250 Factory Outlet Boulevard\RI Report\August 2007\Figure 4 Isopotential Map.dwg, 11/19/2007 9:05:44 AM



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GROUNDWATER ISOPOTENTIAL MAP

RI / AAR / IRM REPORT

2250 FACTORY OUTLET BOULEVARD SITE
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FIGURE 4

F:\CAD\Benchmark\Benderson\2250 Factory Outlet Boulevard\RI Report\August 2007\Figure 5; EXCAVATION LIMITS.dwg, 11/19/2007 9:10:46 AM

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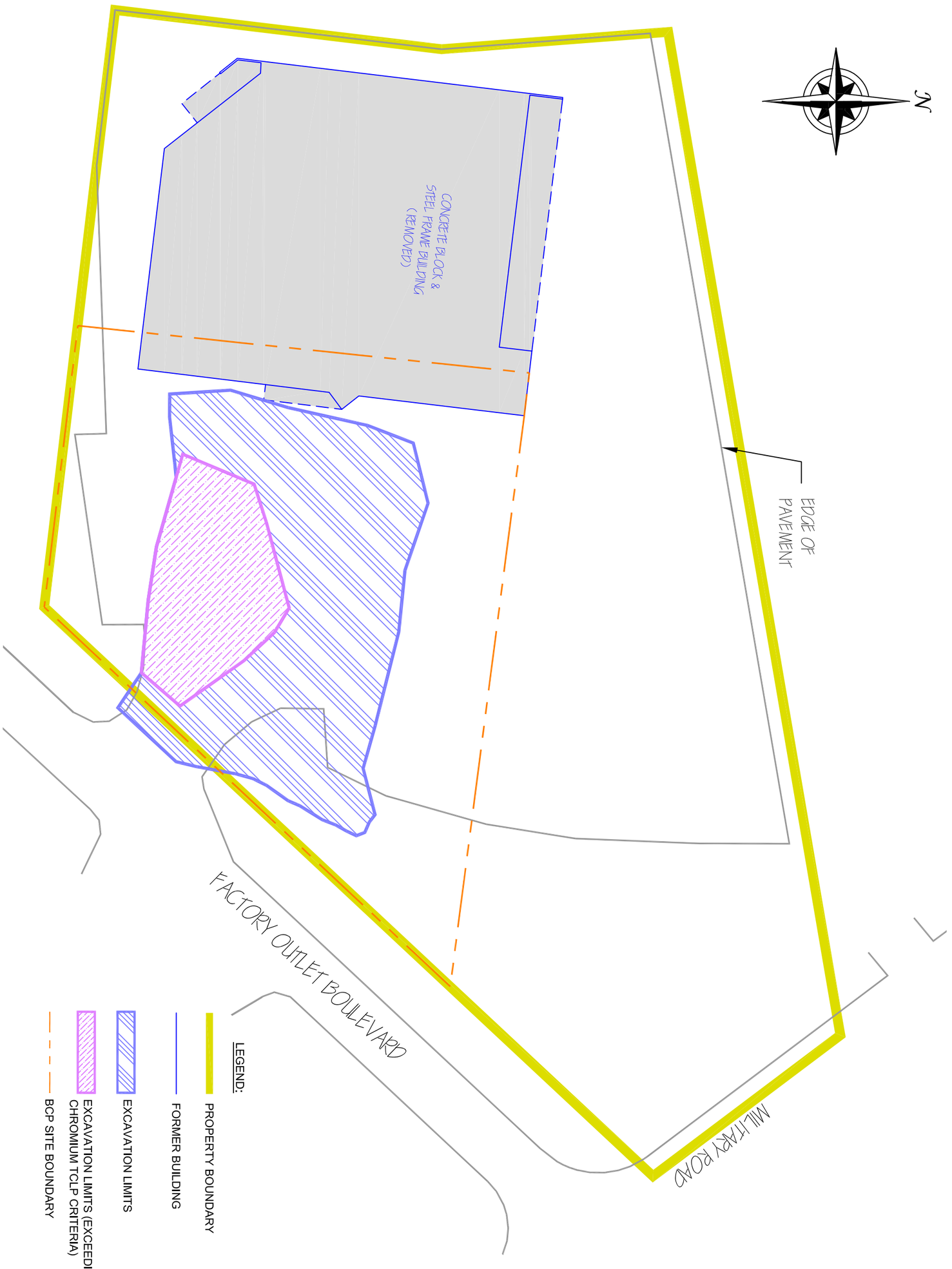

FIGURE 5

IRM SOIL/FILL EXCAVATION RECORD DRAWING

RI / AAR / IRM REPORT

2250 FACTORY OUTLET BOULEVARD SITE
NIAGARA FALLS, NEW YORK

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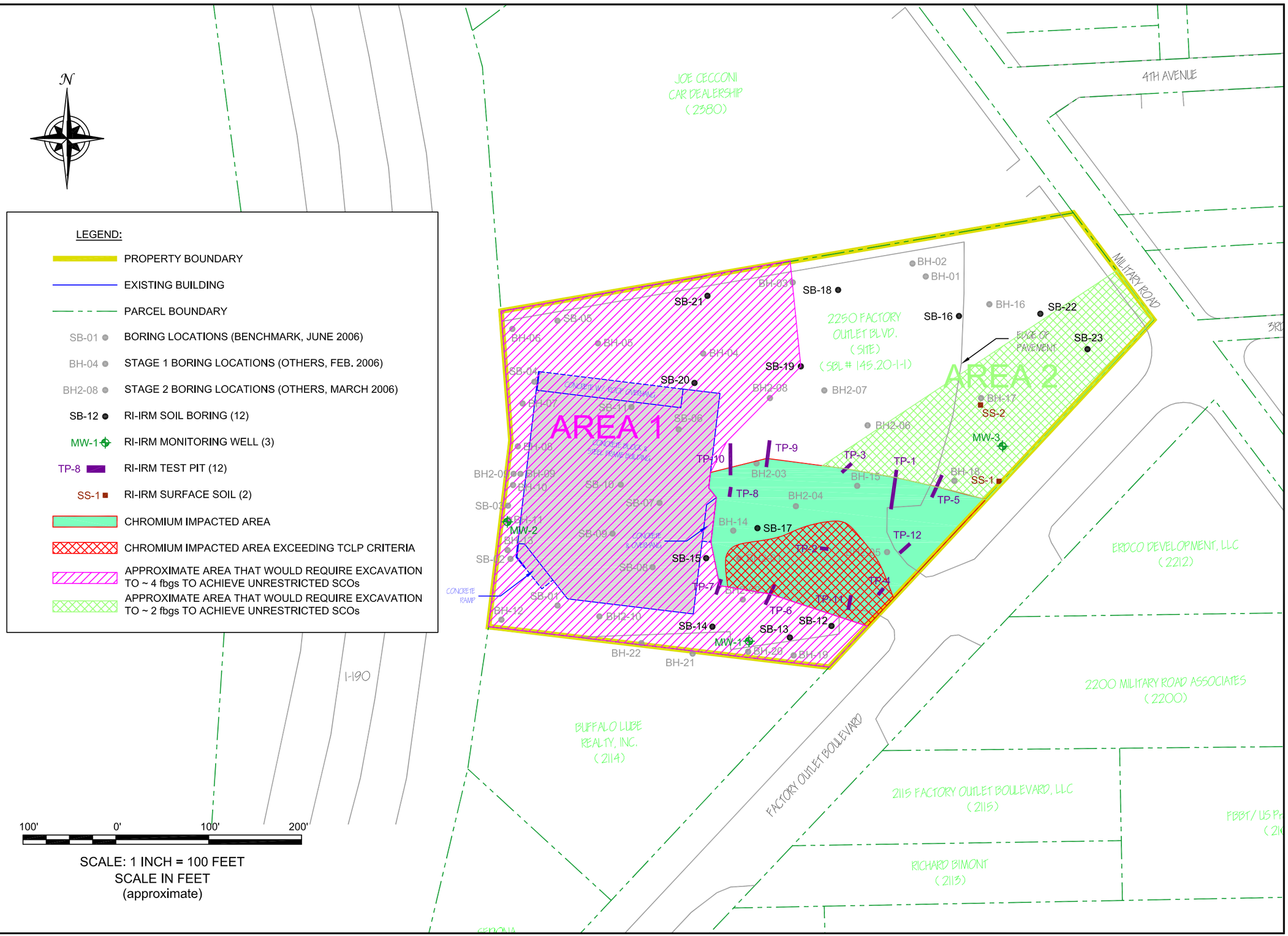
F:\CAD\Benchmark\Benderson\2250 Factory Outlet Boulevard\RI Report\August 2007\Figure 8; Unrestricted SCO Areas.dwg, 11/19/2007 9:12:10 AM



DATE: SEPTEMBER 2007
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UNRESTRICTED USE ALTERNATIVE

RI / AAR / IRM REPORT

2250 FACTORY OUTLET BOULEVARD SITE
NIAGARA FALLS, NEW YORK

PREPARED FOR
NF-3rd ASSOCIATES, LLC

FIGURE 6

APPENDIX A

PREVIOUS INVESTIGATIONS SAMPLING RESULTS

Table 1
Stage 1 Soil Sampling Results Summary
Grossman's Property - 2250 Third Avenue
Town of Niagara Falls, New York

					Eastern	Rec. Soil
					USA	Cleanup
	BH-04	BH-14	BH-18	BH-20	Background	Values
Compounds	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Sample Depth	1-2.5 ft.	1-3 ft.	1-2 ft.	2-3.5 ft.		TAGM
RCRA Metals						
Aresnic	4.2	ND	4.8	7.7	3 to 12	7.5 or SB
Barium	238	64	148	160	15 to 600	300 or SB
Cadmium	0.38	0.41	ND	ND	0.1-1	1 or SB
Chromium	23.2	4780	194	241	1.5 to 40	10 or SB
Lead	22.2	13.4	30.8	18.8	200 to 500	SB****200-500
Mercury	0.069	0.072	0.062	ND	0.001 to 0.2	0.1
Pest						
Dieldrin	ND	0.014 J	0.0017 J	ND	N/A	0.044
PCB's						
PCB Aroclor 1254	ND	0.14	0.052	0.056	N/A	1.0 Surf/10 Sub
Semi-Volatile Organics						
Phenanthrene	0.27	ND	ND	ND	N/A	50
Fluoranthene	0.44	ND	ND	ND	N/A	50
Pyrene	0.28	ND	ND	ND	N/A	50
Benzo(a)anthracene	0.32	ND	ND	ND	N/A	0.224 / MDL
Chrysene	0.24	ND	ND	ND	N/A	0.4
Benzo(b)fluoranthene	0.37	ND	ND	ND	N/A	1.1
Benzo(k)fluoranthene	0.4	ND	ND	ND	N/A	1.1
Benzo(a)pyrene	0.21	ND	ND	ND	N/A	0.061 / MDL
Total cPAH	1.54	0	0	0	N/A	N/A
Total SVOC	2.53	0	0	0	N/A	N/A
Volatile Organics						
2-Butanone	0.004 J	ND	ND	ND	N/A	0.3
Acetone	0.028 J	ND	ND	ND	N/A	0.2
Methylene chloride	0.006	0.007	ND	0.006	N/A	0.1

ND = Non Detect N/A - Not Applicable SB - Site Background

* Result above Total cPAH level of 10ppm **Result above Total SVOC of 100ppm

Shading - Results above NYSDEC Guidelines J - Results Below Quantitation Limits

Total cPAH value includes: benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, dibenzo(a,h)anthracene

Table 2
Stage 2 Soil Sampling Results Summary
Grossman's Property - 2250 Third Avenue
Town of Niagara Falls, New York

											Eastern	Rec. Soil
											USA	Cleanup
	BH2-01	BH2-02	BH2-03	BH2-04	BH2-05	BH2-06	BH2-07	BH2-08	BH2-09	BH2-10	Background	Values
Compounds	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Sample Depth	1-3 ft.	1-3 ft.	1-2.5 ft.	1-3 ft.	1-3 ft.	1-2.5 ft.	2-3 ft.	2-3 ft.	1-2.5 ft.	2-3.5 ft.		TAGM
RCRA Metals												
Aresnic	ND	9.4	ND	ND	ND	3.8	4.4	3.6	4.8	3	3 to 12	7.5 or SB
Barium	101	118	74	117	128	6.2	16.3	147	87.5	148	15 to 600	300 or SB
Cadmium	ND	0.61	ND	ND	ND	1.5	0.36	0.41	0.71	ND	0.1-1	1 or SB
Chromium	16900	69.4	5140	4650	6470	4.8	8.4	22.3	64.6	26.9	1.5 to 40	10 or SB
Lead	3.7	34.5	11.9	5.4	13	23.3	21.9	37.9	27.1	16.5	200 to 500	SB****200-500
Mercury	0.08	0.26	ND	ND	ND	ND	0.029	0.062	0.086	0.026	0.001 to 0.2	0.1
Silver	ND	ND	ND	ND	ND	ND	ND	ND	1	ND	SB	SB

KEY
ND - Non Detect
SB - Site Background
Shading - Results above NYSDEC Guidelines

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TABLE 1- CHROMIUM DATA
2250 Factory Outlet Boulevard
Niagara Falls, New York

Analytical data from Benchmark investigation completed in June 2006

PARAMETER	SB-2	SB-3	SB-4	SB-5	SB-6	SB-7	SB-8	SB-9	SB-10	SB-11
	0-1.5 ft.	0-1.5 ft.	0-2.3 ft.	0-4 ft.	0-4 ft.	0-2 ft.	0-2 ft.	0-1.1 ft.	0-2.5 ft.	1-2.5 ft.
Chromium (mg/kg)	66	34.7	30.2	32.1	34	34.8	10.5	13.7	38	44

Analytical data from previous investigations completed by others reported in March 2006

PARAMETER	BH-04	BH-14	BH-18	BH-20	BH2-01	BH2-02	BH2-03	BH2-04	BH2-05	BH2-06
	1-2.5 ft.	1-3 ft.	1-2 ft.	2-3.5 ft.	1-3 ft.	1-3 ft.	1-2.5 ft.	1-3 ft.	1-3 ft.	1-2.5 ft.
Chromium (mg/kg)	23.2	4780	194	241	16,900	69.4	5,140	4,650	6,470	4.8
TCLP Chromium (mg/L)	NA	NA	NA	NA		NA	NA	NA	NA	NA

PARAMETER	BH2-07	BH2-08	BH2-09	BH2-10
	2-3 ft.	2-3 ft.	1-2.5 ft.	2-3.5 ft.
Chromium (mg/kg)	8.4	22.3	64.6	26.9

Notes:
TCLP = toxicity characteristic leaching procedure.
NA = Not analyzed.
Sample in exceedance of the upper range of eastern USA background concentrations (40 mg/kg).
Sample in exceedance of TCLP threshold for hazardous characteristics (5 mg/Liter)

APPENDIX B

FIELD BOREHOLE LOGS, TEST PIT LOGS, AND WELL CONSTRUCTION DETAILS

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

FIELD GEOPROBE BOREHOLE LOG

PROJECT: 2250 Factory Outlet Blvd.	**Log of Boring No.: SB-12**
BORING LOCATION:	ELEVATION AND DATUM:
DRILLING CONTRACTOR: Trec	DATE STARTED: 12/18/06 — DATE FINISHED 12/18/06
DRILLING METHOD: Directpush geoprobe	TOTAL DEPTH: 8 — SCREEN INTERVAL: NA
DRILLING EQUIPMENT: Truck mounted Geoprobe	DEPTH TO WATER: FIRST: NA — COMPL.: NA — CASING: NA
SAMPLING METHOD:	LOGGED BY: TAB
DRILLER / HELPER: Jim Agar	RESPONSIBLE PROFESSIONAL: TAB — REG. NO.

Depth (fbgs)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Recovery	PID Scan (ppm)	PID HDSP (ppm)	SAMPLE DESCRIPTION	REMARKS
						SURFACE ELEVATION (FMSL):	
0						0.0 - 0.2 Black asphalt.	
1	y		2.7	0.0 ppm		0.2 - 1.4 Light brown and grey, moist parking lot sub grade, silt with some sand, some coarse grained sand with few fine grained gravels.	
2						1.4 - 2.7 Dark grey silty clay, moist, with little sand slight laminations, with rootlets and orange staining	
4	y		3.6	0.0 ppm		0.0 - 3.6 Reddish brown, moist, silty clay with few sand trace coarse grained sand, laminated, hard.	
6							
8							

USCS Classification: Color, Moisture Condition, Primary Soil Type, Secondary Soil Type (<5% Trace, 10-15% Little, 15-30% Few, 35-45% Some), Structure (varved, stratified, thinly bedded, bedded, thickly bedded, laminated, fissured, blocky, lensed, massive), Consistency/Density (Standard Penetration Test, SPT), Weathering/Fracturing, Odor, Fill Materials (if present), Other

Project No: 0105-003-300	Benchmark Environmental Engineering & Science, PLLC	Figure

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

FIELD GEOPROBE BOREHOLE LOG

PROJECT: 2250 Factory Outlet Blvd.		**Log of Boring No.: SB-13**	
BORING LOCATION:		ELEVATION AND DATUM:	
DRILLING CONTRACTOR: Trec		DATE STARTED: 12/18/06	DATE FINISHED 12/18/06
DRILLING METHOD: Direct push geoprobe		TOTAL DEPTH: 8	SCREEN INTERVAL: NA
DRILLING EQUIPMENT: Truck mounted Geoprobe		DEPTH TO WATER: FIRST: NA	COMPL.: NA / CASING: NA
SAMPLING METHOD: direct push		LOGGED BY: TAB	
DRILLER / HELPER: Jim Agar		RESPONSIBLE PROFESSIONAL: TAB	REG. NO.

Depth (fbgs)	SAMPLES: Sample No.	Sample	Recovery	PID Scan (ppm)	PID HDSP (ppm)	SAMPLE DESCRIPTION	REMARKS
						SURFACE ELEVATION (FMSL):	
0						0.0 - 0.3 Black asphalt.	
1						0.3 - 1.8 Light brown and grey, moist parking lot sub grade, silt with some sand, some coarse grained sand with few fine grained gravels, loose when disturbed.	
2	y		2.3	0.0 ppm		1.8 - 2.3 Dark grey silty clay, moist, with little sand slight laminations, stiff, with rootlets.	
4	y		3.9	0.0 ppm		0.0 - 3.9 Reddish brown, moist, silty clay with few sand trace coarse grained sand, laminated, hard.	
6							
8							

USCS Classification: Color, Moisture Condition, Primary Soil Type, Secondary Soil Type (<5% Trace, 10-15% Little, 15-30% Few, 35-45% Some), Structure (varved, stratified, thinly bedded, bedded, thickly bedded, laminated, fissured, bloc

Project No: 0105-003-300	**Benchmark Environmental Engineering & Science, PLLC**	Figure

BENCHMARK
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FIELD GEOPROBE BOREHOLE LOG

PROJECT: 2250 Factory Outlet Blvd.	**Log of Boring No.: SB-14**		
BORING LOCATION:	ELEVATION AND DATUM:		
DRILLING CONTRACTOR: Trec	DATE STARTED: 12/18/06	DATE FINISHED 12/18/06	
DRILLING METHOD: Direct push geoprobe	TOTAL DEPTH: 8	SCREEN INTERVAL: NA	
DRILLING EQUIPMENT: Truck mounted Geoprobe	DEPTH TO WATER: FIRST: NA	COMPL.: NA	CASING: NA
SAMPLING METHOD:	LOGGED BY: TAB		
DRILLER / HELPER: Jim Agar	RESPONSIBLE PROFESSIONAL: TAB		REG. NO.

Depth (fbgs)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Recovery	PID Scan (ppm)	PID HDSP (ppm)	SAMPLE DESCRIPTION	REMARKS
						SURFACE ELEVATION (FMSL):	
0						0.0 - 0.1 Black asphalt.	
1						0.1 - 1.8 Light brown and grey, moist parking lot sub grade, silt with some sand, some coarse grained sand with	
2	y		3.4	0.0 ppm		few fine grained gravels, loose when disturbed.	
						1.8 - 3.4 Dark grey silty clay, moist, with little sand some	
4						orange staining, medium soft, with rootlets.	
	y						
6			3.8	0.0 ppm		0.0 - 3.8 Reddish brown, moist, silty clay with few sand trace coarse grained sand, laminated, hard.	
8							

USCS Classification: Color, Moisture Condition, Primary Soil Type, Secondary Soil Type (<5% Trace, 10-15% Little, 15-30% Few, 35-45% Some), Structure (varved, stratified, thinly bedded, bedded, thickly bedded, laminated, fissured, bloc

Project No: 0105-003-300	**Benchmark Environmental Engineering & Science, PLLC**	Figure

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

FIELD GEOPROBE BOREHOLE LOG

PROJECT: 2250 Factory Outlet Blvd.	**Log of Boring No.: SB-15**		
BORING LOCATION:	ELEVATION AND DATUM:		
DRILLING CONTRACTOR: Trec	DATE STARTED: 12/18/06	DATE FINISHED 12/18/06	
DRILLING METHOD: Direct push geoprobe	TOTAL DEPTH: 8	SCREEN INTERVAL: NA	
DRILLING EQUIPMENT: Truck mounted Geoprobe	DEPTH TO WATER: FIRST: NA	COMPL.: NA	CASING: NA
SAMPLING METHOD:	LOGGED BY: TAB		
DRILLER / HELPER: Jim Agar	RESPONSIBLE PROFESSIONAL: TAB		REG. NO.

Depth (fbgs)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Recovery	PID Scan (ppm)	PID HDSP (ppm)	SAMPLE DESCRIPTION	REMARKS
						SURFACE ELEVATION (FMSL):	
0						0.0 - 0.2 Black asphalt.	
1						0.2 - 2.3 Medium brown/ light grey, moist, parking lot sub grade, silty with some sand and some coarse grained sand, and trace coarse grained gravel.	
2	y		2.3	0.0 ppm			
4	y		4.0	0.0 ppm		0.0 - 1.0 Med brown, wet, silt with some sand, little coarse grained sand and fine grained gravel, dense loose when disturbed.	
6						1.0 - 3.9 Reddish brown, moist, silty clay with few sand trace coarse grained sand, laminated, hard.	
8							

USCS Classification: Color, Moisture Condition, Primary Soil Type, Secondary Soil Type (<5% Trace, 10-15% Little, 15-30% Few, 35-45% Some), Structure (varved, stratified, thinly bedded, bedded, thickly bedded, laminated, fissured, bloc

Project No: 0105-003-300	**Benchmark Environmental Engineering & Science, PLLC**	Figure

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

FIELD GEOPROBE BOREHOLE LOG

PROJECT: 2250 Factory Outlet Blvd.		**Log of Boring No.:**	**SB-16**
BORING LOCATION:		ELEVATION AND DATUM:	
DRILLING CONTRACTOR: Trec		DATE STARTED: 12/18/06	DATE FINISHED 12/18/06
DRILLING METHOD: Direct push geoprobe		TOTAL DEPTH: 8	SCREEN INTERVAL: NA
DRILLING EQUIPMENT: Truck mounted Geoprobe		DEPTH TO WATER: FIRST: NA	COMPL.: NA / CASING: NA
SAMPLING METHOD:		LOGGED BY: TAB	
DRILLER / HELPER: Jim Agar		RESPONSIBLE PROFESSIONAL: TAB	REG. NO.

Depth (fbgs)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Recovery	PID Scan (ppm)	PID HDSP (ppm)	SAMPLE DESCRIPTION	REMARKS
						SURFACE ELEVATION (FMSL):	
0						0.0 - 0.3 Black asphalt.	
1	y		2.6	0.0 ppm		0.3 - 2.6 Light brown and grey, moist parking lot sub grade, silt with some sand, some coarse grained sand with few fine grained gravels, loose when disturbed.	
2							
4	y		4.0	0.0 ppm		0.0 - 1.0 Med brown, wet, silt with some sand, little coarse grained sand and fine grained gravel, dense loose when disturbed.	
6						1.0 - 3.9 Reddish brown moist silty clay with trace sand, with stratified from 2.0 - 4.0' laminations are yellow, reddish brown grey, very stiff.	
8							

USCS Classification: Color, Moisture Condition, Primary Soil Type, Secondary Soil Type (<5% Trace, 10-15% Little, 15-30% Few, 35-45% Some), Structure (varved, stratified, thinly bedded, bedded, thickly bedded, laminated, fissured, bloc

Project No: 0105-003-300	**Benchmark Environmental Engineering & Science, PLLC**	Figure

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

FIELD GEOPROBE BOREHOLE LOG

PROJECT: 2250 Factory Outlet Blvd.	**Log of Boring No.: SB-17**
BORING LOCATION:	ELEVATION AND DATUM:
DRILLING CONTRACTOR: Trec	DATE STARTED: 12/18/06 — DATE FINISHED 12/18/06
DRILLING METHOD: Direct push geoprobe	TOTAL DEPTH: 8 — SCREEN INTERVAL: NA
DRILLING EQUIPMENT: Truck mounted Geoprobe	DEPTH TO WATER: FIRST: NA COMPL.: NA — CASING: NA
SAMPLING METHOD:	LOGGED BY: TAB
DRILLER / HELPER: Jim Agar	RESPONSIBLE PROFESSIONAL: TAB — REG. NO.

Depth (fbgs)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Recovery	PID Scan (ppm)	PID HDSP (ppm)	SAMPLE DESCRIPTION	REMARKS
						USCS Classification: Color, Moisture Condition, Primary Soil Type, Secondary Soil Type (<5% Trace, 10-15% Little, 15-30% Few, 35-45% Some), Structure (varved, stratified, thinly bedded, bedded, thickly bedded, laminated, fissured, bloc	
						SURFACE ELEVATION (FMSL):	
0						0.0 - 0.3 Black asphalt.	Radiation Survey Meter
1	y		3.0	0.0 ppm		0.3 - 0.5 Brown, moist, silt with some sand, with few coarse grained sand and fine grained gravel, loose.	Background 0.006 MR/hr
2						0.5 - 2.5 Light green/ light grey, moist, soil/fill silt with some fines, with coarse grained gravel that has silver coloring, loose.	0.0 - 4.0 0.008 MR/hr
4	y		4.0	0.0 ppm		2.5 - 3.0 Dark brown, moist, silty clay with little sand, with rootlets. Medium soft.	4.0 - 8.0 0.008 MR/hr
6						0.0 - 4.0 Reddish brown, moist, silty clay with few sand trace coarse grained sand, laminated, hard.	
8							

Project No: 0105-003-300	**Benchmark Environmental Engineering & Science, PLLC**	Figure

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

FIELD GEOPROBE BOREHOLE LOG

PROJECT: 2250 Factory Outlet Blvd.	**Log of Boring No.: SB-18**
BORING LOCATION:	ELEVATION AND DATUM:
DRILLING CONTRACTOR: Trec	DATE STARTED: 12/18/06 — DATE FINISHED 12/18/06
DRILLING METHOD: Direct push geoprobe	TOTAL DEPTH: 8 — SCREEN INTERVAL: NA
DRILLING EQUIPMENT: Truck mounted Geoprobe	DEPTH TO WATER: FIRST: NA — COMPL.: NA — CASING: NA
SAMPLING METHOD:	LOGGED BY: TAB
DRILLER / HELPER: Jim Agar	RESPONSIBLE PROFESSIONAL: TAB — REG. NO.

Depth (fbgs)	SAMPLES: Sample No.	Sample	Recovery	PID Scan (ppm)	PID HDSP (ppm)	SAMPLE DESCRIPTION	REMARKS
						SURFACE ELEVATION (FMSL):	
0						0.0 - 0.4 Black asphalt.	Radiation Survey Meter
1	y		4.0	0.0 ppm		0.4 - 1.7 Light grey/ brown, moist, parking lot sub grade, silt with some sand and some coarse grained sands and gravels.	Background 0.009 MR/hr
2							0.0 - 4.0 0.014 MR/hr
4	y		3.9	0.0 ppm		1.7 - 4.0 Reddish brown, moist, silty clay with few sand trace coarse grained sand, laminated, medium soft.	4.0 - 8.0 0.011 MR/hr
6						0.0 - 3.9 Reddish brown, moist, silty clay with few sand trace coarse grained sand, laminated, hard.	
8							

Project No: 0105-003-300	**Benchmark Environmental Engineering & Science, PLLC**	Figure

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

FIELD GEOPROBE BOREHOLE LOG

PROJECT: 2250 Factory Outlet Blvd.	**Log of Boring No.: SB-19**		
BORING LOCATION:	ELEVATION AND DATUM:		
DRILLING CONTRACTOR: Trec	DATE STARTED: 12/18/06	DATE FINISHED 12/18/06	
DRILLING METHOD: Direct push geoprobe	TOTAL DEPTH: 8	SCREEN INTERVAL: NA	
DRILLING EQUIPMENT: Truck mounted Geoprobe	DEPTH TO WATER: FIRST: NA	COMPL.: NA	CASING: NA
SAMPLING METHOD:	LOGGED BY: TAB		
DRILLER / HELPER: Jim Agar	RESPONSIBLE PROFESSIONAL: TAB		REG. NO.

Depth (fbgs)	SAMPLES: Sample No.	Sample	Recovery	PID Scan (ppm)	PID HDSP (ppm)	SAMPLE DESCRIPTION	REMARKS
						SURFACE ELEVATION (FMSL):	
0						0.0 - 0.3 Black asphalt.	Radiation Survey Meter
1	y		3.0	0.0 ppm		0.3 - 0.7 Light grey/ brown, moist, parking lot sub grade, silt with some sand and some coarse grained sands and gravels.	Background 0.007 MR/hr
2						0.7 - 3.0 Reddish brown, moist, silty clay with few sand trace coarse grained sand, laminated, medium soft.	0.0 - 4.0 0.007 MR/hr
4	y		4.0	0.0 ppm			4.0 - 8.0 0.009 MR/hr
6						0.0 - 4.0 Reddish brown, moist, silty clay with few sand trace coarse grained sand, laminated, hard.	
8							

Project No: 0105-003-300	**Benchmark Environmental Engineering & Science, PLLC**	Figure

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

FIELD GEOPROBE BOREHOLE LOG

PROJECT: 2250 Factory Outlet Blvd.	**Log of Boring No.: SB-20**		
BORING LOCATION:	ELEVATION AND DATUM:		
DRILLING CONTRACTOR: Trec	DATE STARTED: 12/18/06	DATE FINISHED 12/18/06	
DRILLING METHOD: Direct push geoprobe	TOTAL DEPTH: 8	SCREEN INTERVAL: NA	
DRILLING EQUIPMENT: Truck mounted Geoprobe	DEPTH TO WATER: FIRST: NA	COMPL.: NA	CASING: NA
SAMPLING METHOD:	LOGGED BY: TAB		
DRILLER / HELPER: Jim Agar	RESPONSIBLE PROFESSIONAL: TAB		REG. NO.

Depth (fbgs)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Recovery	PID Scan (ppm)	PID HDSP (ppm)	SAMPLE DESCRIPTION	REMARKS
						USCS Classification: Color, Moisture Condition, Primary Soil Type, Secondary Soil Type (<5% Trace, 10-15% Little, 15-30% Few, 35-45% Some), Structure (varved, stratified, thinly bedded, bedded, thickly bedded, laminated, fissured, bloc	
						SURFACE ELEVATION (FMSL):	
0						0.0 - 0.4 Black asphalt.	Radiation Survey Meter
1	y		3.2	0.0 ppm		0.4 - 1.0 Light grey/ brown, moist, parking lot sub grade, silt with some sand and some coarse grained sands and gravels.	Background 0.007 MR/hr
2						1.0 - 3.2 Reddish brown, moist, silty clay with few sand trace coarse grained sand, laminated, medium soft.	0.0 - 4.0 0.007 MR/hr
4	y		4.0	0.0 ppm			4.0 - 8.0 0.007 MR/hr
6						0.0 - 4.0 Reddish brown, moist, silty clay with few sand trace coarse grained sand, laminated, hard.	
8							

Project No: 0105-003-300	**Benchmark Environmental Engineering & Science, PLLC**	Figure

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

FIELD GEOPROBE BOREHOLE LOG

PROJECT: 2250 Factory Outlet Blvd.	**Log of Boring No.: SB-21**
BORING LOCATION:	ELEVATION AND DATUM:
DRILLING CONTRACTOR: Trec	DATE STARTED: 12/18/06 — DATE FINISHED 12/18/06
DRILLING METHOD: Direct push geoprobe	TOTAL DEPTH: 8 — SCREEN INTERVAL: NA
DRILLING EQUIPMENT: Truck mounted Geoprobe	DEPTH TO WATER: FIRST: NA COMPL.: NA — CASING: NA
SAMPLING METHOD:	LOGGED BY: TAB
DRILLER / HELPER: Jim Agar	RESPONSIBLE PROFESSIONAL: TAB — REG. NO.

Depth (fbgs)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Recovery	PID Scan (ppm)	PID HDSP (ppm)	SAMPLE DESCRIPTION	REMARKS
						USCS Classification: Color, Moisture Condition, Primary Soil Type, Secondary Soil Type (<5% Trace, 10-15% Little, 15-30% Few, 35-45% Some), Structure (varved, stratified, thinly bedded, bedded, thickly bedded, laminated, fissured, bloc	
						SURFACE ELEVATION (FMSL):	
0						0.0 - 0.2 Black asphalt.	Radiation Survey Meter
1	y					0.2 - 0.7 Light grey/ brown, moist, parking lot sub grade, silt with some sand and some coarse grained sands and gravels.	Background 0.008 MR/hr
2			3.1	0.0 ppm		0.7 - 3.1 reddish brown, moist, silty clay with some sand, trace coarse grained sand and trace fine gravel, medium soft, massive.	0.0 - 4.0 0.008 MR/hr
4	y						4.0 - 8.0 0.008 MR/hr
6			4.2	0.0 ppm		0.0 - 4.2 reddish brown, moist, silty clay with some sand, trace coarse grained sand and trace fine gravel, medium soft, massive.	
8							

Project No: 0105-003-300	**Benchmark Environmental Engineering & Science, PLLC**	Figure

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

FIELD GEOPROBE BOREHOLE LOG

PROJECT: 2250 Factory Outlet Blvd.	**Log of Boring No.: SB-22**
BORING LOCATION:	ELEVATION AND DATUM:
DRILLING CONTRACTOR: Trec	DATE STARTED: 12/18/06 — DATE FINISHED 12/18/06
DRILLING METHOD: Direct push geoprobe	TOTAL DEPTH: 8 — SCREEN INTERVAL: NA
DRILLING EQUIPMENT: Truck mounted Geoprobe	DEPTH TO WATER: FIRST: NA — COMPL.: NA — CASING: NA
SAMPLING METHOD:	LOGGED BY: TAB
DRILLER / HELPER: Jim Agar	RESPONSIBLE PROFESSIONAL: TAB — REG. NO.

Depth (fbgs)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Recovery	PID Scan (ppm)	PID HDSP (ppm)	SAMPLE DESCRIPTION	REMARKS
						SURFACE ELEVATION (FMSL):	
0						0.0 - 2.0 Dark brown, moist, topsoil, silt with some sand, with few coarse grained sand with pieces of asphalt and rootlets.	Radiation Survey Meter
1	y		3.0	0.0 ppm		2.0 - 3.0 Dark grey, moist, silty clay with some sand and orange staining with rootlets.	Background 0.007 MR/hr
2							0.0 - 4.0 0.007 MR/hr
4	y		4.0	0.0 ppm		0.0 - 4.0 reddish brown, moist, silty clay with some sand, grey sandy areas, stratified, with rootlets.	4.0 - 8.0 0.007 MR/hr
6							
8							

USCS Classification: Color, Moisture Condition, Primary Soil Type, Secondary Soil Type (<5% Trace, 10-15% Little, 15-30% Few, 35-45% Some), Structure (varved, stratified, thinly bedded, bedded, thickly bedded, laminated, fissured, bloc

Project No: 0105-003-300	**Benchmark Environmental Engineering & Science, PLLC**	Figure

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

FIELD GEOPROBE BOREHOLE LOG

PROJECT: 2250 Factory Outlet Blvd.	**Log of Boring No.: SB-23**
BORING LOCATION:	ELEVATION AND DATUM:
DRILLING CONTRACTOR: Trec	DATE STARTED: 12/18/06 — DATE FINISHED 12/18/06
DRILLING METHOD: Direct push geoprobe	TOTAL DEPTH: 8 — SCREEN INTERVAL: NA
DRILLING EQUIPMENT: Truck mounted Geoprobe	DEPTH TO WATER: FIRST: NA COMPL.: NA — CASING: NA
SAMPLING METHOD:	LOGGED BY: TAB
DRILLER / HELPER: Jim Agar	RESPONSIBLE PROFESSIONAL: TAB — REG. NO.

Depth (fbgs)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Recovery	PID Scan (ppm)	PID HDSP (ppm)	SAMPLE DESCRIPTION	REMARKS
						SURFACE ELEVATION (FMSL):	
0						0.0 - 1.0 Dark brown, moist, topsoil, silt with some sand, with few coarse grained sand with pieces of asphalt and rootlets.	Radiation Survey Meter Background 0.011 MR/hr 0.0 - 4.0 0.014 MR/hr 4.0 - 8.0 0.019 MR/hr
1	y		3.2	0.0 ppm		1.0 - 3.2 reddish brown, moist, silty clay with some sand, grey sandy areas, stratified, with rootlets.	
2							
4	y		4.1	0.0 ppm		0.0 - 4.1 reddish brown, moist, silty clay with some sand, grey sandy areas, stratified, with rootlets.	
6							
8							

Project No: 0105-003-300	**Benchmark Environmental Engineering & Science, PLLC**	Figure

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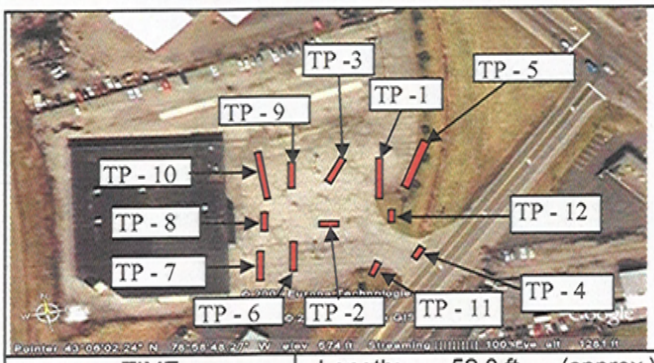
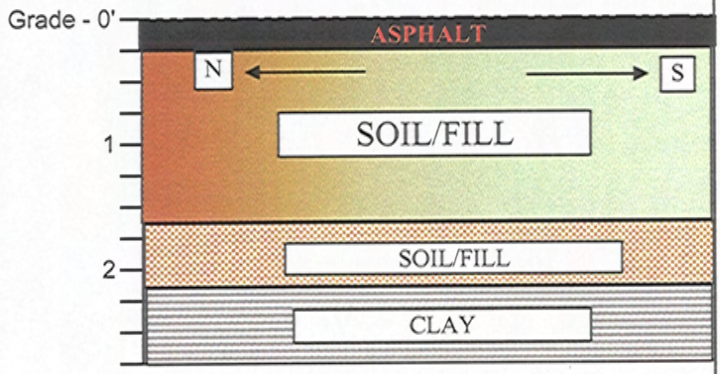
TEST PIT EXCAVATION LOG

Project:	2250 Factory Outlet Blvd.	TEST PIT I.D.:	TP - 1
Project No.:	0105 - 003 - 300	Excavation Date:	12/19/06
Client:	Benderson	Excavation Method:	Kabota kx121 - 3
Location:	2250 Factory Outlet Blvd.	Logged / Checked By:	TAB



Test Pit Cross Section:



TIME				
Start:	9:00	Length:	52.0 ft	(approx.)
End:	9:45	Width:	2.0 ft	(approx.)
		Depth:	3.0 ft	(approx.)

Depth (fbgs)	USCS Symbol & Soil Description	PID Scan (ppm)	Photos Y / N	Samples Collected (fbgs)
0.0 - 0.3	Asphalt	0.0	y	N
0.3 - 1.6	Light green (south) to light brown (north), soil/fill, moist, silt with some sand, coarse grained sands and gravels, large cobbles and pieces of slag, at north end of TP - 1 crushed limestone from 2.0 - 2.5 fbgs on top of fabric.	0.0	y	y
1.6 - 2.2	Dark brown, wet , soil/fill, silt with sand and coarse grained gravel and pieces of slag.	0.0	y	y
2.2 - 2.5	Dark grey, silty clay, moist, with trace sand.	0.0	y	y

COMMENTS:

GROUNDWATER ENCOUNTERED:	☑ YES ☐ NO	If yes, depth to GW:	~2.0 fbgs
VISUAL IMPACTS:	☑ YES ☐ NO	Describe:	light green soil/fill
OLFACTORY OBSERVATIONS:	☐ YES ☑ NO	Describe:	
NON-NATIVE FILL ENCOUNTERED:	☑ YES ☐ NO		
OTHER OBSERVATIONS:	☑ YES ☐ NO	Describe:	
SAMPLES COLLECTED:	Yes		
RADIONUCLIDES (mR/H)	Background 0.011 mR/hr		
	0.0 -2.5 x 52 ft 0.011mR/hr		

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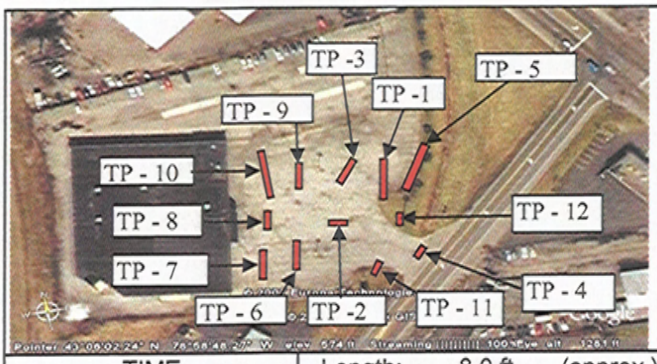
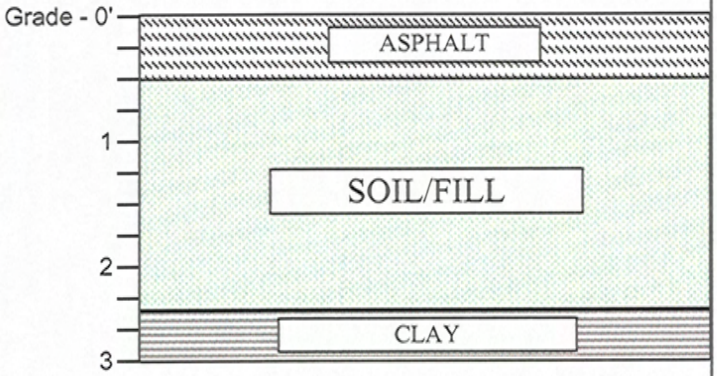
TEST PIT EXCAVATION LOG

Project:	2250 Factory Outlet Blvd.	TEST PIT I.D.:	TP - 2
Project No.:	0105 - 003 - 300	Excavation Date:	12/19/06
Client:	Benderson	Excavation Method:	Kabota kx121 - 3
Location:	2250 Factory Outlet Blvd.	Logged / Checked By:	TAB



Test Pit Cross Section:



TIME				
Start:	10:45	Length:	8.0 ft	(approx.)
End:	11:30	Width:	2.0 ft	(approx.)
		Depth:	3.0 ft	(approx.)

Depth (fbgs)	USCS Symbol & Soil Description	PID Scan (ppm)	Photos Y / N	Samples Collected (fbgs)
0.0 - 0.5	Asphalt	0.0	y	N
0.5 - 2.5	Light green, yellow and blue, soil/fill, moist, silt with some sand, coarse grained sands and gravels, large cobbles and pieces of slag.	0.0	y	y
2.5 - 3.0	Dark grey, silty clay, moist, with trace sand.	0.0	y	y

COMMENTS:

GROUNDWATER ENCOUNTERED:	☑ YES	☐ NO	If yes, depth to GW:	2.5 fbgs
VISUAL IMPACTS:	☑ YES	☐ NO	Describe:	light green soil/fill
OLFACTORY OBSERVATIONS:	☐ YES	☑ NO	Describe:	
NON-NATIVE FILL ENCOUNTERED:	☑ YES	☐ NO		
OTHER OBSERVATIONS:	☐ YES	☑ NO	Describe:	
SAMPLES COLLECTED:	Yes			
RADIONUCLIDES (mR/H)	Background 0.010 mR/hr			
	0.0 -3.0 x 8 ft 0.011mR/hr			

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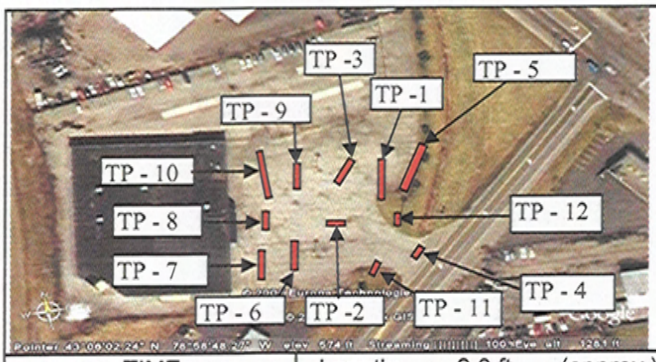
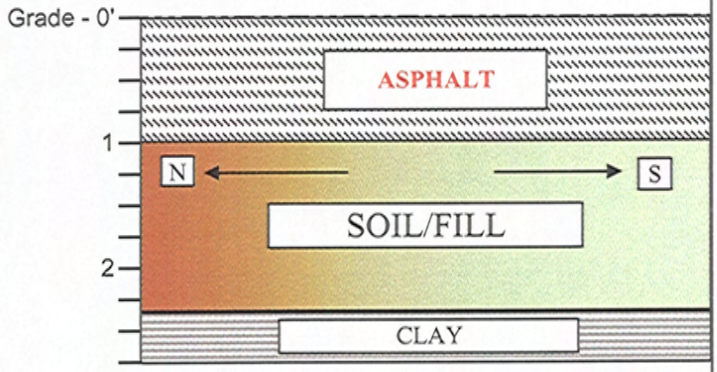
TEST PIT EXCAVATION LOG

Project:	2250 Factory Outlet Blvd.	TEST PIT I.D.:	TP - 3
Project No.:	0105 - 003 - 300	Excavation Date:	12/19/06
Client:	Benderson	Excavation Method:	Kabota kx121 - 3
Location:	2250 Factory Outlet Blvd.	Logged / Checked By:	TAB



Test Pit Cross Section:



TIME				
Start:	9:55	Length:	9.0 ft	(approx.)
End:	10:30	Width:	2.0 ft	(approx.)
		Depth:	3.0 ft	(approx.)

Depth (fbgs)	USCS Symbol & Soil Description	PID Scan (ppm)	Photos Y / N	Samples Collected (fbgs)
0.0 - 1.0	Asphalt	0.0	y	N
1.0 - 2.0	Light green (south) to light brown (north), soil/fill, moist, silt with some sand, coarse grained sands and gravels, large cobbles and pieces of slag, at north end of TP - 3 crushed limestone from 2.0 - 2.5 fbgs on top of fabric.	0.0	y	y
2.0 - 3.0	Dark grey, silty clay, moist, with trace sand.	0.0	y	y

COMMENTS:

GROUNDWATER ENCOUNTERED:	☑ YES ☐ NO	If yes, depth to GW:	~2.5 fbgs
VISUAL IMPACTS:	☑ YES ☐ NO	Describe:	light green soil/fill
OLFACTORY OBSERVATIONS:	☐ YES ☑ NO	Describe:	
NON-NATIVE FILL ENCOUNTERED:	☑ YES ☐ NO		
OTHER OBSERVATIONS:	☐ YES ☑ NO	Describe:	
SAMPLES COLLECTED:	Yes		
RADIONUCLIDES (mR/H)	Background 0.010 mR/hr		
	0.0 -2.5 x 9 ft 0.034 mR/hr		

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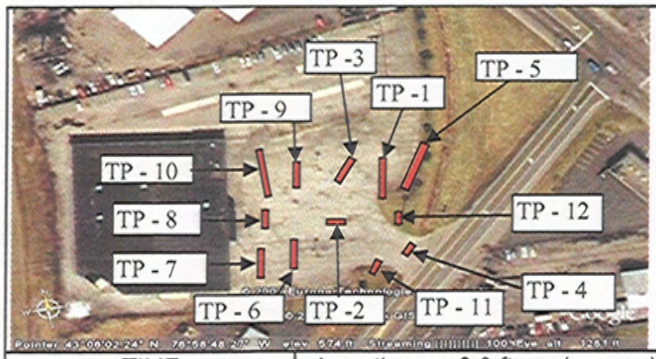
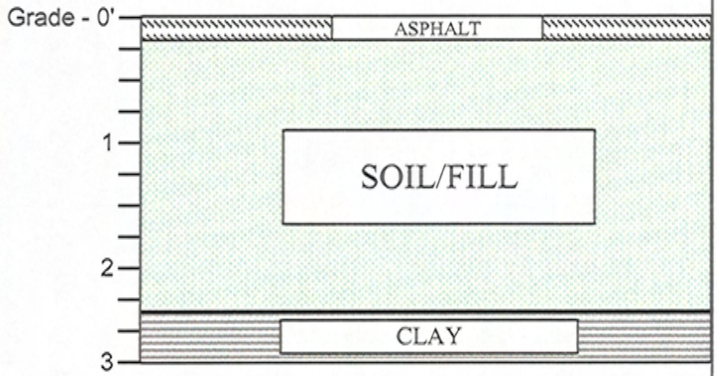
TEST PIT EXCAVATION LOG

Project:	2250 Factory Outlet Blvd.	TEST PIT I.D.:	TP - 4
Project No.:	0105 - 003 - 300	Excavation Date:	12/19/06
Client:	Benderson	Excavation Method:	Kabota kx121 - 3
Location:	2250 Factory Outlet Blvd.	Logged / Checked By:	TAB



Test Pit Cross Section:



TIME				
Start:	12:30	Length:	8.0 ft	(approx.)
End:	13:30	Width:	2.0 ft	(approx.)
		Depth:	3.0 ft	(approx.)

Depth (fbgs)	USCS Symbol & Soil Description	PID Scan (ppm)	Photos Y / N	Samples Collected (fbgs)
0.0 - 0.2	Asphalt	0.0	y	N
0.2 - 2.5	Light green, soil/fill, moist to wet at fill clay interface, silt with some sand, coarse grained sands and gravels, large cobbles and pieces of slag.	0.0	y	y
2.5 - 3.0	Dark grey to reddish brown, silty clay, moist, with trace sand.	0.0	y	y

COMMENTS:

GROUNDWATER ENCOUNTERED:	☑ YES	☐ NO	If yes, depth to GW:	2.5 fbgs
VISUAL IMPACTS:	☑ YES	☐ NO	Describe:	light green soil/fill
OLFACTORY OBSERVATIONS:	☐ YES	☑ NO	Describe:	
NON-NATIVE FILL ENCOUNTERED:	☑ YES	☐ NO		
OTHER OBSERVATIONS:	☐ YES	☑ NO	Describe:	
SAMPLES COLLECTED:	Yes			
RADIONUCLIDES (mR/H)	Background 0.010 mR/hr			
	0.0 -2.5 x 9 ft 0.011mR/hr			

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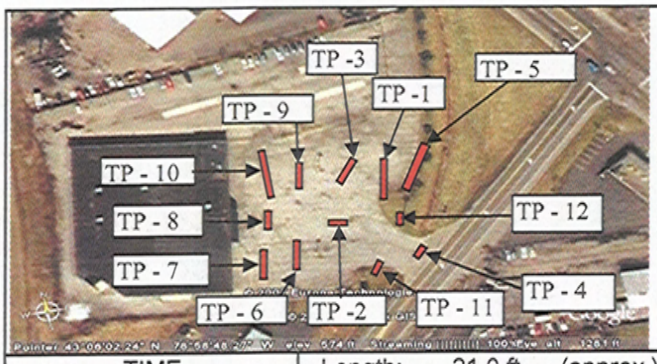
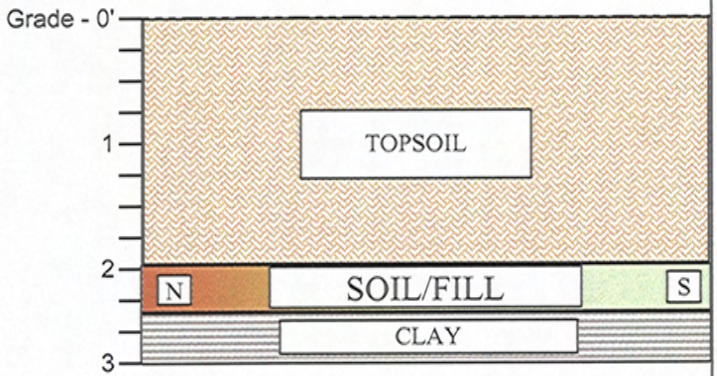
TEST PIT EXCAVATION LOG

Project:	2250 Factory Outlet Blvd.	TEST PIT I.D.:	TP - 5
Project No.:	0105 - 003 - 300	Excavation Date:	12/19/06
Client:	Benderson	Excavation Method:	Kabota kx121 - 3
Location:	2250 Factory Outlet Blvd.	Logged / Checked By:	TAB



Test Pit Cross Section:



TIME		Length:	21.0 ft	(approx.)
Start:	15:19	Width:	2.0 ft	(approx.)
End:	15:15	Depth:	3.0 ft	(approx.)

Depth (fbgs)	USCS Symbol & Soil Description	PID Scan (ppm)	Photos Y / N	Samples Collected (fbgs)
0.0 - 2.0	Dark Brown, moist, topsoil, silt with some sand, with few clay and rootlets.	0.0	y	N
2.0 - 2.5	Light green, soil/fill, moist, silt with some sand, coarse grained sands and gravels, large cobbles and pieces of slag, Light green layer becomes thinner going to the north.	0.0	y	y
2.5 - 3.0	Dark grey, silty clay, moist, with trace sand.	0.0	y	y

COMMENTS:

GROUNDWATER ENCOUNTERED:	☑ YES	☐ NO	If yes, depth to GW:	~3.0 fbgs
VISUAL IMPACTS:	☑ YES	☐ NO	Describe:	light green soil/fill
OLFACTORY OBSERVATIONS:	☐ YES	☑ NO	Describe:	
NON-NATIVE FILL ENCOUNTERED:	☑ YES	☐ NO		
OTHER OBSERVATIONS:	☐ YES	☑ NO	Describe:	
SAMPLES COLLECTED:	Yes			
RADIONUCLIDES (mR/H)	Background 0.011 mR/hr			
	0.0 -3.0 x 21 ft 0.017 mR/hr			

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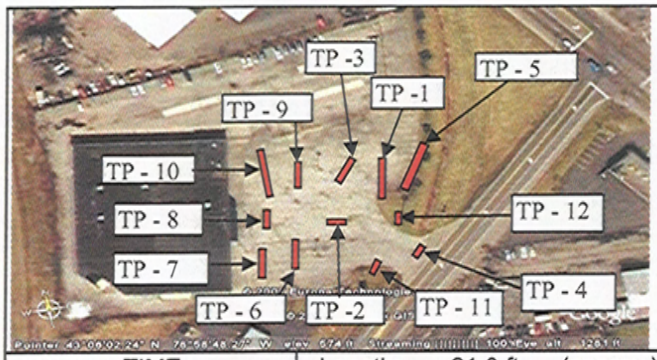
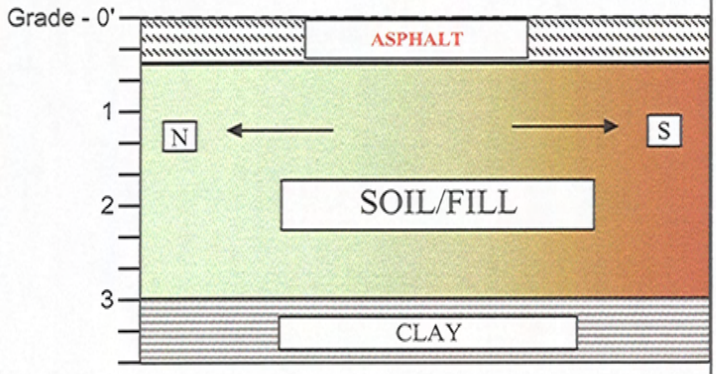
TEST PIT EXCAVATION LOG

Project:	2250 Factory Outlet Blvd.	TEST PIT I.D.:	TP - 6
Project No.:	0105 - 003 - 300	Excavation Date:	12/19/06
Client:	Benderson	Excavation Method:	Kabota kx121 - 3
Location:	2250 Factory Outlet Blvd.	Logged / Checked By:	TAB



Test Pit Cross Section:



TIME				
Start:	14:19	Length:	21.0 ft	(approx.)
End:	15:15	Width:	2.0 ft	(approx.)
		Depth:	3.5 ft.	(approx.)

Depth (fbgs)	USCS Symbol & Soil Description	PID Scan (ppm)	Photos Y / N	Samples Collected (fbgs)
0.0 - 0.6	Asphalt	0.0	y	N
0.6 - 3.0	Light green (north) to light brown (south), soil/fill, moist, silt with some sand, coarse grained sands and gravels, large cobbles and pieces of slag, gw water at fill clay interface.	0.0	y	y
3.0 - 3.5	Dark grey, silty clay, moist, with trace sand.	0.0	y	y

COMMENTS:

GROUNDWATER ENCOUNTERED:	☑ YES	☐ NO	If yes, depth to GW:	~3.0 fbgs
VISUAL IMPACTS:	☑ YES	☐ NO	Describe:	light green soil/fill
OLFACTORY OBSERVATIONS:	☐ YES	☑ NO	Describe:	
NON-NATIVE FILL ENCOUNTERED:	☑ YES	☑ NO		
OTHER OBSERVATIONS:	☐ YES	☑ NO	Describe:	
SAMPLES COLLECTED:	Yes			
RADIONUCLIDES (mR/H)	Background 0.009 mR/hr			
	0.0 -3.0 x 21 ft 0.009 mR/hr			

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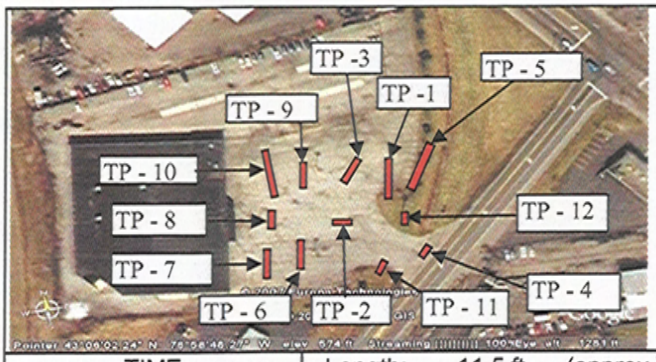
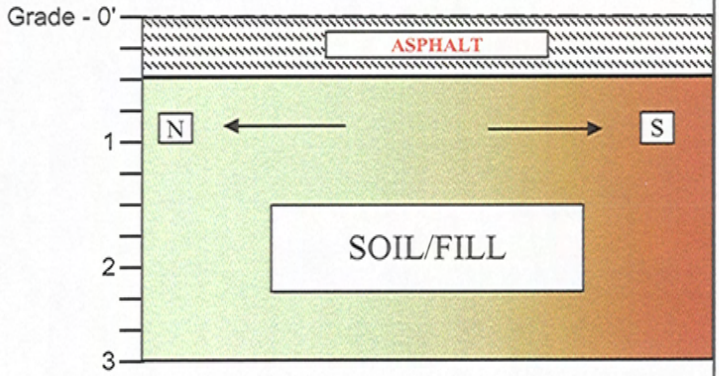
TEST PIT EXCAVATION LOG

Project:	2250 Factory Outlet Blvd.	TEST PIT I.D.:	TP - 7
Project No.:	0105 - 003 - 300	Excavation Date:	12/19/06
Client:	Benderson	Excavation Method:	Kabota kx121 - 3
Location:	2250 Factory Outlet Blvd.	Logged / Checked By:	TAB



Test Pit Cross Section:



TIME				
Start:	15:45 PM	Length:	11.5 ft	(approx.)
End:	16:40 PM	Width:	2.0 ft	(approx.)
		Depth:	3.0 ft	(approx.)

Depth (fbgs)	USCS Symbol & Soil Description	PID Scan (ppm)	Photos Y / N	Samples Collected (fbgs)
0.0 - 0.5	Asphalt	0.0	y	N
0.5 - 3.0	Light green/ light grey, soil/fill, moist to wet, silt with some sand, coarse grained sands and gravels, large cobbles and pieces of slag, Light green layer becomes thinner going to the south, gw at fill clay interface.	0.0	y	y
3.0	Dark grey, silty clay, moist, with trace sand.	0.0	y	N

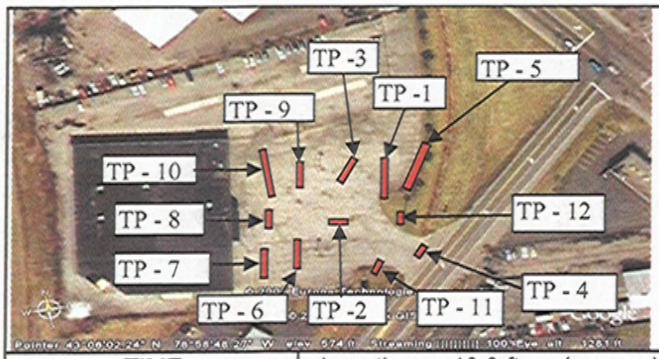
COMMENTS:

GROUNDWATER ENCOUNTERED:	☑ YES	☐ NO	If yes, depth to GW:	~2.5 fbgs
VISUAL IMPACTS:	☑ YES	☐ NO	Describe:	light green soil/fill
OLFACTORY OBSERVATIONS:	☐ YES	☑ NO	Describe:	
NON-NATIVE FILL ENCOUNTERED:	☑ YES	☐ NO		
OTHER OBSERVATIONS:	☐ YES	☑ NO	Describe:	
SAMPLES COLLECTED:	Yes			
RADIONUCLIDES (mR/H)	Background 0.010 mR/hr			
	0.0 -2.5 x 11.5 ft 0.013 mR/hr			

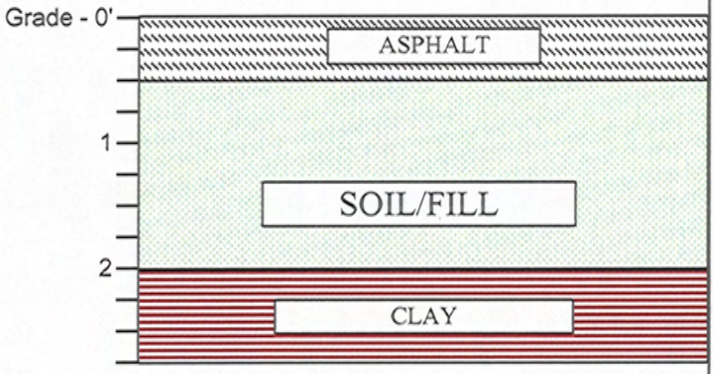
BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TEST PIT EXCAVATION LOG

Project:	2250 Factory Outlet Blvd.	TEST PIT I.D.:	TP - 8
Project No.:	0105 - 003 - 300	Excavation Date:	12/20/06
Client:	Benderson	Excavation Method:	JCB 260L excavator
Location:	2250 Factory Outlet Blvd.	Logged / Checked By:	TAB



Test Pit Cross Section:



TIME				
Start:	8:20	Length:	10.0 ft	(approx.)
End:	9:10	Width:	4.5 ft	(approx.)
		Depth:	2.5 ft.	(approx.)

Depth (fbgs)	USCS Symbol & Soil Description	PID Scan (ppm)	Photos Y / N	Samples Collected (fbgs)
0.0 - 0.3	Asphalt	0.0	y	n
0.3 - 2.0	Light green/ light grey, soil/fill, moist, silt with some sand, coarse grained sands and gravels, large cobbles and pieces of slag.	0.0	y	y
2.0 - 2.5	reddish brown, moist, silty clay with trace sand.	0.0	y	n

COMMENTS:

GROUNDWATER ENCOUNTERED:	☐ YES	☑ NO	If yes, depth to GW:
VISUAL IMPACTS:	☑ YES	☐ NO	Describe: light green soil/fill
OLFACTORY OBSERVATIONS:	☐ YES	☑ NO	Describe:
NON-NATIVE FILL ENCOUNTERED:	☑ YES	☐ NO	
OTHER OBSERVATIONS:	☐ YES	☑ NO	Describe:
SAMPLES COLLECTED:	Yes		
RADIONUCLIDES (mR/H)	Background 0.006 mR/hr		
	0.0 - 2.5 x 10 ft 0.006mR/hr		

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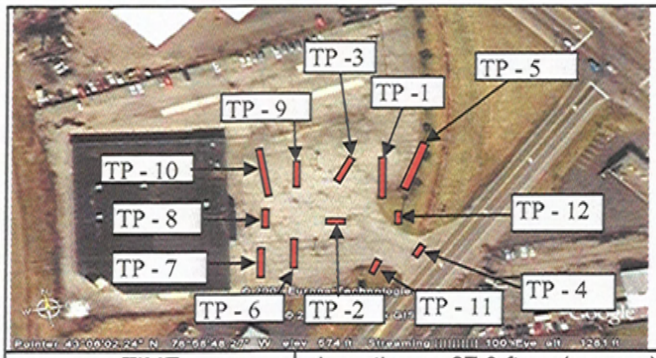
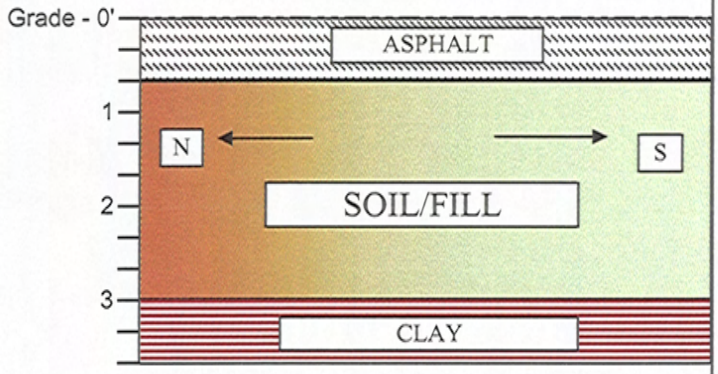
TEST PIT EXCAVATION LOG

Project:	2250 Factory Outlet Blvd.	TEST PIT I.D.:	TP - 9
Project No.:	0105 - 003 - 300	Excavation Date:	12/20/06
Client:	Benderson	Excavation Method:	JCB 260L excavator
Location:	2250 Factory Outlet Blvd.	Logged / Checked By:	TAB



Test Pit Cross Section:



TIME				
Start:	9:15	Length:	27.0 ft	(approx.)
End:	9:40	Width:	4.5 ft	(approx.)
		Depth:	3.5 ft.	(approx.)

Depth (fbgs)	USCS Symbol & Soil Description	PID Scan (ppm)	Photos Y / N	Samples Collected (fbgs)
0.0 - 0.7	Asphalt	0.0	y	n
0.7 - 3.0	Light green/ light grey, soil/fill, moist, silt with some sand, coarse grained sands and gravels, large cobbles and pieces of slag, north end of test pit has crushed limestone.	0.0	y	y
3.0 - 3.5	reddish brown, moist, silty clay with trace sand.	0.0	y	n

COMMENTS:

GROUNDWATER ENCOUNTERED:	☑ YES	☐ NO	If yes, depth to GW:	~ 3.0 fbgs
VISUAL IMPACTS:	☑ YES	☐ NO	Describe:	light green soil/fill
OLFACTORY OBSERVATIONS:	☐ YES	☑ NO	Describe:	
NON-NATIVE FILL ENCOUNTERED:	☑ YES	☐ NO		
OTHER OBSERVATIONS:	☐ YES	☑ NO	Describe:	
SAMPLES COLLECTED:	Yes			
RADIONUCLIDES (mR/H)	Background 0.010 mR/hr			
	0.0 - 2.5 x 10 ft 0.006mR/hr			

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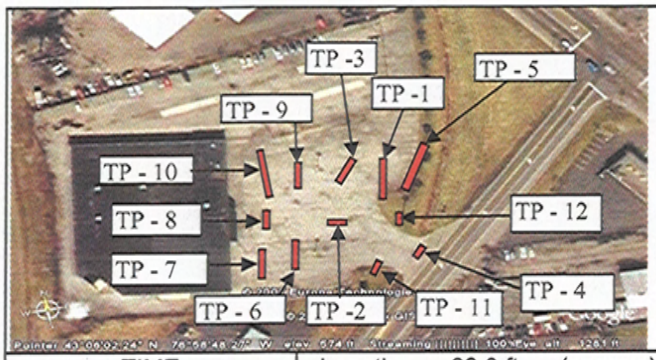
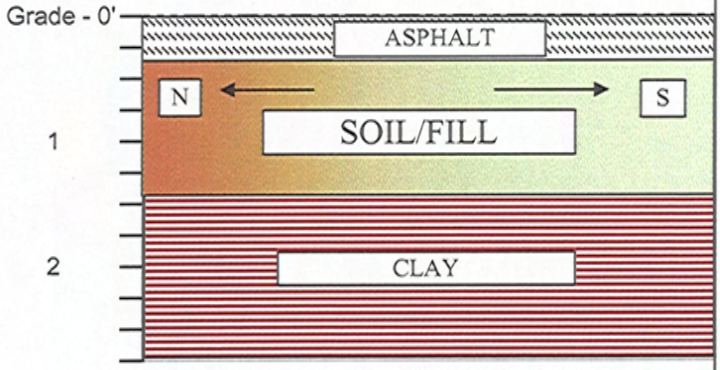
TEST PIT EXCAVATION LOG

Project:	2250 Factory Outlet Blvd.	TEST PIT I.D.:	TP - 10
Project No.:	0105 - 003 - 300	Excavation Date:	12/20/06
Client:	Benderson	Excavation Method:	JCB 260L excavator
Location:	2250 Factory Outlet Blvd.	Logged / Checked By:	TAB



Test Pit Cross Section:



TIME				
Start:	9:55	Length:	29.0 ft	(approx.)
End:	10:20	Width:	4.5 ft	(approx.)
		Depth:	2.0 ft.	(approx.)

Depth (fbgs)	USCS Symbol & Soil Description	PID Scan (ppm)	Photos Y / N	Samples Collected (fbgs)
0.0 - 0.4	Asphalt	0.0	y	n
0.4 - 1.5	Light brown north end of test pit with light green and grey south end of test pit, silt with sand with coarse and gravel and larger cobbles.	0.0	y	y
1.5 - 2.0	reddish brown, moist, silty clay with trace sand.	0.0	y	n

COMMENTS:

GROUNDWATER ENCOUNTERED:	☐ YES	☑ NO	If yes, depth to GW:
VISUAL IMPACTS:	☑ YES	☐ NO	Describe: light green soil/fill
OLFACTORY OBSERVATIONS:	☐ YES	☑ NO	Describe:
NON-NATIVE FILL ENCOUNTERED:	☑ YES	☐ NO	
OTHER OBSERVATIONS:	☐ YES	☑ NO	Describe:
SAMPLES COLLECTED:	Yes		
RADIONUCLIDES (mR/H)	Background 0.009 mR/hr		
	0.0 - 2.5 x 29 ft 0.009 mR/hr		

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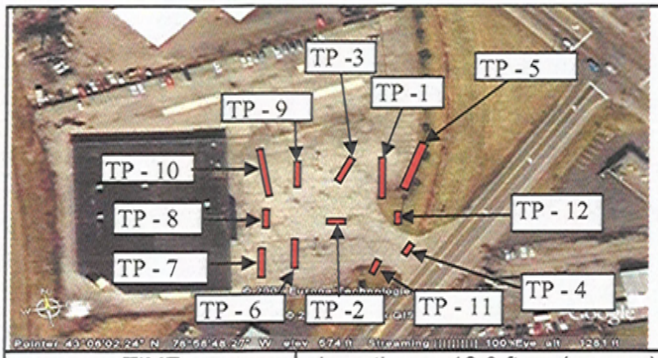
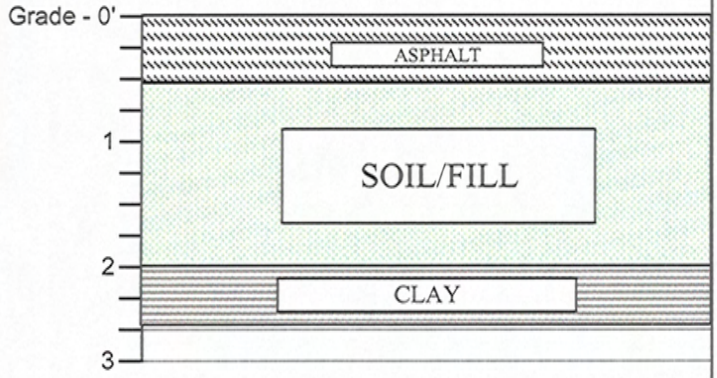
TEST PIT EXCAVATION LOG

Project:	2250 Factory Outlet Blvd.	TEST PIT I.D.:	TP - 11
Project No.:	0105 - 003 - 300	Excavation Date:	12/20/06
Client:	Benderson	Excavation Method:	JCB 260L excavator
Location:	2250 Factory Outlet Blvd.	Logged / Checked By:	TAB



Test Pit Cross Section:



TIME				
Start:	10:45	Length:	13.0 ft	(approx.)
End:	11:15	Width:	2.0 ft	(approx.)
		Depth:	2.5 ft	(approx.)

Depth (fbgs)	USCS Symbol & Soil Description	PID Scan (ppm)	Photos Y / N	Samples Collected (fbgs)
0.0 - 0.5	Asphalt	0.0	y	n
0.5 - 2.0	Light green, soil/fill, moist to wet at fill clay interface, silt with some sand, coarse grained sands and gravels, large cobbles and pieces of slag.	0.0	y	y
2.0 - 2.5	Dark grey to reddish brown, silty clay, moist, with trace sand.	0.0	y	n

COMMENTS:

GROUNDWATER ENCOUNTERED:	☑ YES	☐ NO	If yes, depth to GW:	~2.0 fbgs
VISUAL IMPACTS:	☑ YES	☐ NO	Describe:	light green soil/fill
OLFACTORY OBSERVATIONS:	☐ YES	☑ NO	Describe:	
NON-NATIVE FILL ENCOUNTERED:	☑ YES	☐ NO		
OTHER OBSERVATIONS:	☐ YES	☑ NO	Describe:	
SAMPLES COLLECTED:	Yes			
RADIONUCLIDES (mR/H)	Background 0.008 mR/hr			
	0.0 -2.5 x 9 ft 0.008 mR/hr			

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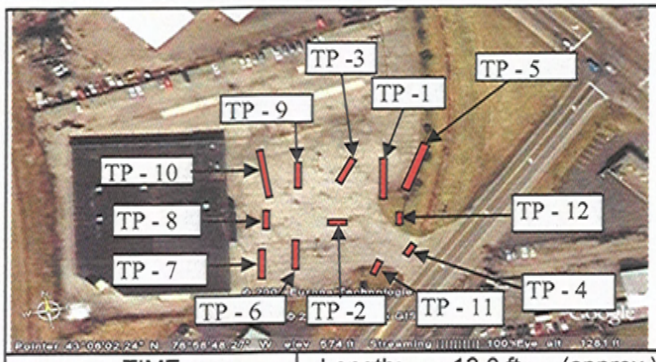
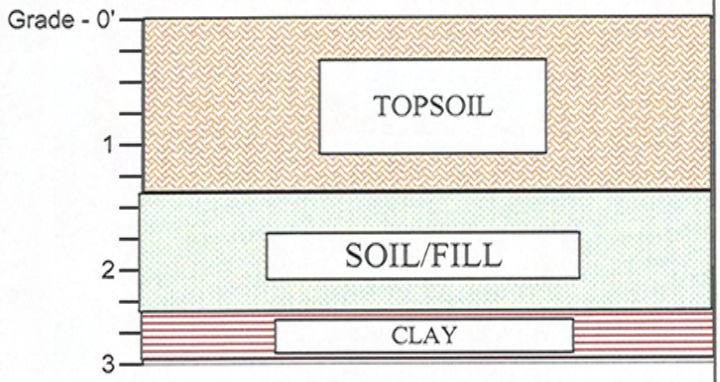
TEST PIT EXCAVATION LOG

Project:	2250 Factory Outlet Blvd.	TEST PIT I.D.:	TP - 12
Project No.:	0105 - 003 - 300	Excavation Date:	12/20/06
Client:	Benderson	Excavation Method:	JCB 260L excavator
Location:	2250 Factory Outlet Blvd.	Logged / Checked By:	TAB



Test Pit Cross Section:



TIME				
Start:	11:45	Length:	13.0 ft	(approx.)
End:	12:30	Width:	4.5 ft	(approx.)
		Depth:	3.0 ft	(approx.)

Depth (fbgs)	USCS Symbol & Soil Description	PID Scan (ppm)	Photos Y / N	Samples Collected (fbgs)
0.0 - 1.5	Dark Brown, moist, topsoil, silt with some sand, with few clay and rootlets.	0.0	y	n
1.5 - 2.5	Light green, soil/fill, moist to wet at fill clay interface, silt with some sand, coarse grained sands and gravels, large cobbles and pieces of slag.	0.0	y	y
2.5 - 3.0	Dark grey to reddish brown, silty clay, moist, with trace sand.	0.0	y	n

COMMENTS:

GROUNDWATER ENCOUNTERED:	☑ YES	☐ NO	If yes, depth to GW:	~2.0 fbgs
VISUAL IMPACTS:	☑ YES	☐ NO	Describe:	light green soil/fill
OLFACTORY OBSERVATIONS:	☐ YES	☑ NO	Describe:	
NON-NATIVE FILL ENCOUNTERED:	☑ YES	☐ NO		
OTHER OBSERVATIONS:	☐ YES	☑ NO	Describe:	
SAMPLES COLLECTED:	Yes			
RADIONUCLIDES (mR/H)	Background 0.010 mR/hr			
	0.0 - x 9 ft 0.008 mR/hr			

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TABLE B-1

GROUNDWATER ELEVATION MEASUREMENTS

RI / AAR / IRM Report
2250 Factory Outlet Blvd
Benderson Development Company

Monitoring Location	Top of Protective Casing Elev.	Top of PVC Riser Elev.	Depth to Water	Groundwater Elevation
MW-1	498.43	498.08	3.83	494.25
MW-2	497.84	497.65	4.19	493.46
MW-3	498.65	498.13	4.11	494.02
MW-4	499.11	498.67	3.86	494.81

Notes:

1. All wells were surveyed on 1/11/07 with site specific datum of 500 feet.
2. Top of protective casing elevation equals ground surface elevation.

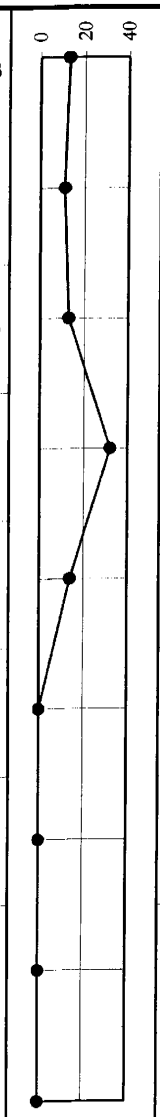
BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

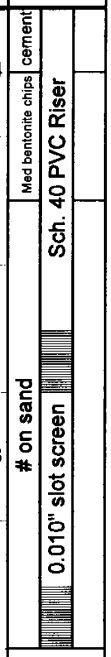
FIELD BOREHOLE/MONITORING INSTALLATION LOG

Project Name: 2250 Factory Outlet Blvd.
Project Number: 0105-003-200
Client: Benderson
Drilling Company: SJB
Driller: Thomas Kilburn
Helper: Conrad Wojcicki
Rig Type: CME pull behind

BORING NUMBER: MW - 1
Location: 2250 Factory outlet blvd.
Start Date/Time: 12/21/2006 / 12:40 PM
End Date/Time: 12/21/2006 / 14:10 PM
Logged By: TAB
Drilling Method: split spoon
Weather: Overcast, low 40s wind SW 0 - 5 mph

Elevation (fmsl)	Depth (fbgs)	Sample No.	Blows (per 6")	SPT N-Value	Recovery (feet)	SAMPLE DESCRIPTION (USCS Classification: Color, Moisture Condition, Primary Soil Type, Secondary Soil Type (<5% Trace, 10-15% Little, 15-30% Few, 35-45% Some), Structure (varved, stratified, thinly bedded, bedded, thickly bedded, laminated, fissured, bloc	USCS Code	PID Scan (ppm)	PID HDSP (ppm)	Samples (y/n)	RADIONUCLIDES (mR/H)
498.4	0		BT								
		S1	8 5 8	13	1.0	Black and grey, moist, black top and sub grade, silt with some sand and coarse grained sand, dense, loose when disturbed. Dark grey, moist, silty clay, with trace sand, stiff, massive.		0.0	na	n	0.004
496.4	2										
		S2	4 5 6	11	1.3	Dark grey, moist, silty clay, with trace sand, stiff, with rootlets, and some orange staining. Reddish brown, moist, silty clay, with trace sand, stiff, massive with rootlets.		0.0	na	n	0.01
494.4	4										
		S3	9 5 6 7	13	0.0	No recovery.		0.0	na	n	NA
492.4	6		10								
		S4	12 16 16	32	0.3	Reddish brown silty clay, with trace sand, stiff, massive with rootlets and stratified.		0.0	na	y	0.008
490.4	8		17								
		S5	4 7 7	14	2.0	Reddish brown silty clay, with trace sand, stiff, massive with rootlets and stratified.		0.0	na	n	0.011
488.4	10		4								
		S6		0		eob @ 10.0 fbgs.					
486.4	12										
		S7		0							
484.4	14										
		S8		0							
482.4	16										
		S9		0							
480.4	18										





MONITORING WELL GROUTING:

Volume of cement/bentonite grout required: $V = \pi r^2 \times 7.48$: 0.0 gallons
Volume of cement/bentonite grout installed:
Has bridging of grout occurred? ☐ yes ☐ no
If yes, explain resolution:
Method of installation: tremie grouted from bottom to top of borehole

borehole depth =
borehole diameter =
borehole radius = 0.00 feet

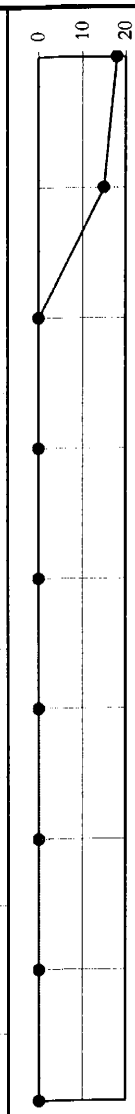
BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

FIELD BOREHOLE/MONITORING INSTALLATION LOG

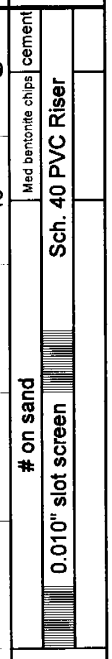
Project Name: 2250 Factory Outlet Blvd.
Project Number: 0105-003-200
Client: Benderson
Drilling Company: SJB
Driller: Thomas Kilburn
Helper: Conrad Wojcicki
Rig Type: CME pull behind

BORING NUMBER: MW - 2
Location: 2250 Factory outlet blvd.
Start Date/Time: 12/21/2006 / 14:35 PM
End Date/Time: 12/21/2006 / 15:15 PM
Logged By: TAB
Drilling Method: split spoon
Weather: Overcast, low 40s wind SW 0 - 5 mph

Elevation (fmsl)	Depth (fbgs)	Sample No.	Blows (per 6")	SPT N-Value	Recovery (feet)	SAMPLE DESCRIPTION (USCS Classification: Color, Moisture Condition, Primary Soil Type, Secondary Soil Type (<5% Trace, 10-15% Little, 15-30% Few, 35-45% Some), Structure (varved, stratified, thinly bedded, bedded, thickly bedded, laminated, fissured, bloc)	USCS Code	PID Scan (ppm)	PID HDSP (ppm)	Samples (y/n)	RADIONUCLIDES (mR/H)
497.8	0		BT								
		S1	12 6	18	1.1	Black and grey, moist, black top and sub grade, silt with some sand and coarse grained sand, dense, loose when disturbed. Dark grey, moist, silty clay, with trace sand, stiff, massive.		0.0	na	n	0.009
495.8	2		5 6								
		S2	8 7	15	1.4	Dark grey, moist, silty clay, with trace sand, stiff, with rootlets. Reddish brown, moist, silty clay, with trace sand, stiff, massive with rootlets and grey desecration cracks.		0.0	na	y	0.012
493.8	4		11								
		S3		0	0.0	Due to rig problems and time constraints MW - 2 was split spooned to 4.0 fbgs then augured to 10.0 fbgs. eob @ 10.0 fbgs.		0.0	na	n	NA
491.8	6										
		S4		0	0.3			0.0	na	n	NA
489.8	8										
		S5		0	2.0			0.0	na	n	NA
487.8	10										
		S6		0							
485.8	12										
		S7		0							
483.8	14										
		S8		0							
481.8	16										
		S9		0							
479.8	18										



Well Construction Details



MONITORING WELL GROUTING:

Volume of cement/bentonite grout required: $V = \pi r^2 \times 7.48$: 0.0 gallons
Volume of cement/bentonite grout installed:
Has bridging of grout occurred? ☐ yes ☐ no
If yes, explain resolution:
Method of installation: tremie grouted from bottom to top of borehole

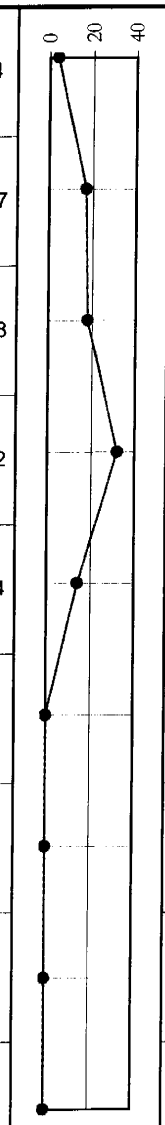
borehole depth =
borehole diameter =
borehole radius = 0.00 feet

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

FIELD BOREHOLE/MONITORING INSTALLATION LOG

Project Name: 2250 Factory Outlet Blvd.
BORING NUMBER: MW - 3
Project Number: 0105-003-200
Location: 2250 Factory outlet blvd.
Client: Benderson
Start Date/Time: 12/21/2006 / 09:06 AM
Drilling Company: SJB
End Date/Time: 12/21/2006 / 11:45 AM
Driller: Thomas Kilburn
Logged By: TAB
Helper: Conrad Wojcicki
Drilling Method: split spoon
Rig Type: CME pull behind
Weather: Overcast, low 40s wind SW 0 - 5 mph

Elevation (fmsl)	Depth (fbgs)	Sample No.	Blows (per 6")	SPT N-Value	Recovery (feet)	SAMPLE DESCRIPTION (USCS Classification: Color, Moisture Condition, Primary Soil Type. Secondary Soil Type (<5% Trace, 10-15% Little, 15-30% Few, 35-45% Some). Structure (varved, stratified, thinly bedded, bedded, thickly bedded, laminated, fissured, blocky, lensed, massive). Consistency/Density (Standard Penetration Test, SPT). Weathering/Fracturing, Odor, Fill Materials (if present), Other)	USCS Code	PID Scan (ppm)	PID HDSP (ppm)	Samples (y/n)	RADIONUCLIDES (mR/H)	Well Construction Details
498.7	0	S1	2, 2, 2, 8	4	1.1	Dark brown, moist, topsoil, silt with some sand and little clay with asphalt pieces and wood chips with some rootlets, wet at bottom		0.0		n	0.006	cement
496.7	2	S2	8, 12, 5, 5	17	0.3	Wet coarse grained gravel.		0.0		n	0.01	Med bentonite chips
494.7	4	S3	4, 8, 10, 11	18	0.2	Reddish brown, silty clay.		0.0		n	0.008	Sch. 40 PVC Riser
492.7	6	S4	13, 15, 17, 8	32	0.3	Reddish brown, silty clay.		0.0		n	0.006	# oon sand
490.7	8	S5	4, 7, 7, 4	14	2.0	Reddish brown, moist, silty clay with trace sand, stratified yellow and grey sand areas, more massive at bottom with grey sand desecration cracks, very stiff.		0.0		y		0.010" slot screen
488.7	10	S6		0		eob @ 10.0 fbgs.						
486.7	12	S7		0								
484.7	14	S8		0								
482.7	16	S9		0								
480.7	18											



MONITORING WELL GROUTING:

Volume of cement/bentonite grout required: $V = pr^2 \times 7.48 =$ 0.0 gallons — borehole depth =
Volume of cement/bentonite grout installed: — borehole diameter =
Has bridging of grout occurred? ☐ yes ☐ no — borehole radius = 0.00 feet
If yes, explain resolution:
Method of installation: tremie grouted from bottom to top of borehole

APPENDIX C

RI SAMPLING DATA

APPENDIX C

RI SAMPLING DATA

ANALYTICAL REPORT

Job#: A06-F190,A06-F191,A06-F288,A06-F361

STL Project#: NY4A9217
SDG#: F190
Site Name: Benchmark
Task: 2250 Factory Outlet Blvd.

Mr. Mike Lesakowski
Benchmark Environmental
726 Exchange St., Ste 624
Buffalo, NY 14210

STL Buffalo

Brian J. Fischer
Project Manager

01/16/2007

SAMPLE SUMMARY

LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	SAMPLED DATE	SAMPLED TIME	RECEIVED DATE	RECEIVED TIME
A6F28802	BLIND DUP #1	SOIL	12/19/2006	09:00	12/20/2006	10:25
A6F36102	BLIND DUP #1	SOIL	12/19/2006	09:00	12/20/2006	10:25
A6F19001	SB-12 (1-2)	SOIL	12/18/2006	08:39	12/18/2006	15:55
A6F19002	SB-13 (2-3)	SOIL	12/18/2006	08:57	12/18/2006	15:55
A6F19003	SB-14 (1.5-2.5)	SOIL	12/18/2006	09:26	12/18/2006	15:55
A6F19004	SB-15 (1-2)	SOIL	12/18/2006	09:46	12/18/2006	15:55
A6F19005	SB-16 (1-2)	SOIL	12/18/2006	10:14	12/18/2006	15:55
A6F19006	SB-17 (1-2)	SOIL	12/18/2006	10:46	12/18/2006	15:55
A6F19101	SB-17 (1-2)	SOIL	12/18/2006	10:46	12/18/2006	15:55
A6F19007	SB-17 (4-5)	SOIL	12/18/2006	10:55	12/18/2006	15:55
A6F19008	SB-18 (1-2)	SOIL	12/18/2006	11:37	12/18/2006	15:55
A6F19009	SB-19 (1-2)	SOIL	12/18/2006	12:31	12/18/2006	15:55
A6F19010	SB-20 (1-2)	SOIL	12/18/2006	12:47	12/18/2006	15:55
A6F19011	SB-21 (0.5-1.5)	SOIL	12/18/2006	13:11	12/18/2006	15:55
A6F19012	SB-22 (1-2)	SOIL	12/18/2006	13:50	12/18/2006	15:55
A6F19013	SB-23 (1-2)	SOIL	12/18/2006	14:14	12/18/2006	15:55
A6F28803	TP-1/ SL#1 (2-2.5)	SOIL	12/19/2006	10:45	12/20/2006	10:25
A6F28804	TP-1/ SL#2 (0-2.0)	SOIL	12/19/2006	11:14	12/20/2006	10:25
A6F28801	TP-1/SL#1 (0.0-2.0)	SOIL	12/19/2006	10:24	12/20/2006	10:25
A6F28801MS	TP-1/SL#1 (0.0-2.0)	SOIL	12/19/2006	10:24	12/20/2006	10:25
A6F28801SD	TP-1/SL#1 (0.0-2.0)	SOIL	12/19/2006	10:24	12/20/2006	10:25
A6F36101	TP-1/SL#1 (0.0-2.0)	SOIL	12/19/2006	10:24	12/20/2006	10:25
A6F36101MS	TP-1/SL#1 (0.0-2.0)	SOIL	12/19/2006	10:24	12/20/2006	10:25
A6F36101SD	TP-1/SL#1 (0.0-2.0)	SOIL	12/19/2006	10:24	12/20/2006	10:25
A6F36104	TP-1/SL#2 (0.0-2.0)	SOIL	12/19/2006	11:19	12/20/2006	10:25
A6F28808	TP-2 (2.5-3.0)	SOIL	12/19/2006	11:47	12/20/2006	10:25
A6F28809	TP-3 SL#1 (0-2)	SOIL	12/19/2006	13:10	12/20/2006	10:25
A6F28810	TP-3 SL#1 (2-3)	SOIL	12/19/2006	13:17	12/20/2006	10:25
A6F36106	TP-3/SL#1 (0-2)	SOIL	12/19/2006	13:10	12/20/2006	10:25

METHODS SUMMARY

Job#: A06-F190,A06-F191,A06-F288,A06-F361

STL Project#: NY4A9217
SDG#: F190
Site Name: Benchmark

PARAMETER	ANALYTICAL METHOD
Chromium - Total	ASP00 CLP-M
Chromium - Total	SW8463 6010
Hexavalent Chromium - Total	SW8463 7196A
Toxicity Characteristic Leaching Procedure	SW8463 1311

References:

ASP00 "Analytical Services Protocol", New York State Department of Conservation, June 2000.

SW8463 "Test Methods for Evaluating Solid Waste Physical/Chemical Methods (SW846), Third Edition, 9/86; Update I, 7/92; Update IIA, 8/93; Update II, 9/94; Update IIB, 1/95; Update III, 12/96.

NON-CONFORMANCE SUMMARY

Job#: A06-F190,A06-F191,A06-F288,A06-F361

STL Project#: NY4A9217
SDG#: F190
Site Name: Benchmark

General Comments

The enclosed data may or may not have been reported utilizing data qualifiers (Q) as defined on the Data Comment Page.

Soil, sediment and sludge sample results are reported on "dry weight" basis unless otherwise noted in this data package.

According to 40CFR Part 136.3, pH, Chlorine Residual, Dissolved Oxygen, Sulfite, and Temperature analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. pH-Field), they were not analyzed immediately, but as soon as possible after laboratory receipt.

Sample dilutions were performed as indicated on the attached Dilution Log. The rationale for dilution is specified by the 3-digit code and definition.

Sample Receipt Comments

A06-F190
Sample Cooler(s) were received at the following temperature(s); 5.2 °C
All samples were received in good condition.
A06-F191
Sample Cooler(s) were received at the following temperature(s); 5.2 °C
All samples were received in good condition.
A06-F288
Sample Cooler(s) were received at the following temperature(s); 3.0 °C
All samples were received in good condition.
A06-F361
Sample Cooler(s) were received at the following temperature(s); 3.0 °C
All samples were received in good condition.

Metals Data

The recoveries of sample TP-1/SL#1 (0.0-2.0) Matrix Spike and Matrix Spike Duplicate exhibited results below the quality control limits for Chromium. The sample result is more than four times greater than the spike added. The RPD of sample TP-1/SL#1 (0.0-2.0) Matrix Spike and Matrix Spike Duplicate exceeded the quality control limits for Chromium. The LCS is acceptable.

The recovery of sample TP-1/SL#1 (0.0-2.0) Post Spike exhibited a result below the quality control limits for Chromium. However, the LCS was acceptable.

The Serial Dilution of sample TP-1/SL#1 (0.0-2.0) exceeded the quality control limits for Chromium. However, the LCS was acceptable.

Wet Chemistry Data

Hexavalent Chromium was subcontracted to STL Pittsburgh. The complete subcontract report is included in this report as Appendix A. Comments pertaining to Hexavalent Chromium may be found within the comment summary of the subcontract report.

****

The results presented in this report relate only to the analytical testing and condition of the sample at receipt. This report pertains to only those samples actually tested. All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.

STL BUFFALO

Benchmark Environmental & Engineering Science

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

BLIND DUP #1

Contract: NY04-133

Lab Code: STLBLFO Case No.: SAS No.: SDG NO.: F190

Matrix (soil/water): SOIL Lab Sample ID: AD679984

Level (low/med): LOW Date Received: 12/20/2006

% Solids: 68

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-47-3	Chromium	4050		E*	P

Color Before: GRAY Clarity Before: CLOUDY Texture: COARSE

Color After: YELLOW Clarity After: CLR/FIL Artifacts:

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

SB-12 (1-2)

Contract: NY04-133

Lab Code: STLBLFO Case No.: SAS No.: SDG NO.: F190

Matrix (soil/water): SOIL Lab Sample ID: AD679969

Level (low/med): LOW Date Received: 12/18/2006

% Solids: 83

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-47-3	Chromium	22.3		E*	P

Color Before: BROWN Clarity Before: CLOUDY Texture: CLAY

Color After: YELLOW Clarity After: CLR/FIL Artifacts:

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

SB-13 (2-3)

Contract: NY04-133

Lab Code: STLBLFO Case No.: SAS No.: SDG NO.: F190

Matrix (soil/water): SOIL Lab Sample ID: AD679970

Level (low/med): LOW Date Received: 12/18/2006

% Solids: 77

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-47-3	Chromium	76.0		E*	P

Color Before: BROWN Clarity Before: CLOUDY Texture: CLAY

Color After: YELLOW Clarity After: CLR/FIL Artifacts:

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

SB-14 (1.5-2.5)

Contract: NY04-133

Lab Code: STLBLFO Case No.: SAS No.: SDG NO.: F190

Matrix (soil/water): SOIL Lab Sample ID: AD679971

Level (low/med): LOW Date Received: 12/18/2006

% Solids: 93

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-47-3	Chromium	39.2		E*	P

Color Before: BROWN Clarity Before: CLOUDY Texture: GRAVEL

Color After: YELLOW Clarity After: CLR/FIL Artifacts:

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

SB-15 (1-2)

Contract: NY04-133

Lab Code: STLBLFO Case No.: SAS No.: SDG NO.: F190

Matrix (soil/water): SOIL Lab Sample ID: AD679972

Level (low/med): LOW Date Received: 12/18/2006

% Solids: 97

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-47-3	Chromium	4.1		E*	P

Color Before: BROWN Clarity Before: CLOUDY Texture: GRAVEL

Color After: YELLOW Clarity After: CLR/FIL Artifacts:

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

SB-16 (1-2)

Contract: NY04-133

Lab Code: STLBLFO Case No.: SAS No.: SDG NO.: F190

Matrix (soil/water): SOIL Lab Sample ID: AD679973

Level (low/med): LOW Date Received: 12/18/2006

% Solids: 86

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-47-3	Chromium	5.1		E*	P

Color Before: BROWN Clarity Before: CLOUDY Texture: GRAVEL

Color After: YELLOW Clarity After: CLR/FIL Artifacts:

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

SB-17 (1-2)

Contract: NY04-133

Lab Code: STLBLFO Case No.: SAS No.: SDG NO.: F190

Matrix (soil/water): SOIL Lab Sample ID: AD700330

Level (low/med): LOW Date Received: 12/18/2006

% Solids: 83

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-47-3	Chromium	2940			P

Color Before: YELLOW Clarity Before: CLEAR Texture: NONE

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: Benchmark Environmental & Engine **SDG No.:** F190 **Method Type:**

Sample ID: A6F19006-TCLP **Client ID:** SB-17 (1-2)-TCLP

Matrix: WATER **Date Received:** 12/18/2006 **Date Collected:** 12/18/2006 **Level:** LOW

% Solids: **Sample Wt/Vol:** 50.0 **Final Vol:** 50.0

Prep Batch ID: A6B32400 **Prep Date:** 12/21/2006

Analyte	Concentration	Units	C	Qual	RL	RL	Dil	Analytical Date	Time	Instrument	Run	M
Chromium	**3850**	**ug/L**			**4.0**	4.0	1	**12/22/2006**	**10:53**	SUPERTRACE	2122106	P

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

SB-17 (4-5)

Contract: NY04-133

Lab Code: STLBLFO Case No.: SAS No.: SDG NO.: F190

Matrix (soil/water): SOIL Lab Sample ID: AD679974

Level (low/med): LOW Date Received: 12/18/2006

% Solids: 78

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-47-3	Chromium	103		E*	P

Color Before: BROWN Clarity Before: CLOUDY Texture: CLAY

Color After: YELLOW Clarity After: CLR/FIL Artifacts:

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

SB-18 (1-2)

Contract: NY04-133

Lab Code: STLBLFO Case No.: SAS No.: SDG NO.: F190

Matrix (soil/water): SOIL Lab Sample ID: AD679975

Level (low/med): LOW Date Received: 12/18/2006

% Solids: 79

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-47-3	Chromium	29.5		E*	P

Color Before: BROWN Clarity Before: CLOUDY Texture: CLAY

Color After: YELLOW Clarity After: CLR/FIL Artifacts:

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

SB-19 (1-2)

Contract: NY04-133

Lab Code: STLBLFO Case No.: SAS No.: SDG NO.: F190

Matrix (soil/water): SOIL Lab Sample ID: AD679976

Level (low/med): LOW Date Received: 12/18/2006

% Solids: 81

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-47-3	Chromium	25.9		E*	P

Color Before: BROWN Clarity Before: CLOUDY Texture: CLAY

Color After: YELLOW Clarity After: CLR/FIL Artifacts:

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

SB-20 (1-2)

Contract: NY04-133

Lab Code: STLBLFO Case No.: SAS No.: SDG NO.: F190

Matrix (soil/water): SOIL Lab Sample ID: AD679977

Level (low/med): LOW Date Received: 12/18/2006

% Solids: 84

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-47-3	Chromium	84.9		E*	P

Color Before: BROWN Clarity Before: CLOUDY Texture: CLAY

Color After: YELLOW Clarity After: CLR/FIL Artifacts:

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

SB-21 (0.5-1.5)

Contract: NY04-133

Lab Code: STLBLFO Case No.: SAS No.: SDG NO.: F190

Matrix (soil/water): SOIL Lab Sample ID: AD679978

Level (low/med): LOW Date Received: 12/18/2006

% Solids: 84

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-47-3	Chromium	57.5		E*	P

Color Before: BROWN Clarity Before: CLOUDY Texture: TOPSOIL

Color After: YELLOW Clarity After: CLR/FIL Artifacts:

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

SB-22 (1-2)

Contract: NY04-133

Lab Code: STLBLFO Case No.: SAS No.: SDG NO.: F190

Matrix (soil/water): SOIL Lab Sample ID: AD679979

Level (low/med): LOW Date Received: 12/18/2006

% Solids: 79

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-47-3	Chromium	22.5		E*	P

Color Before: BROWN Clarity Before: CLOUDY Texture: TOPSOIL

Color After: YELLOW Clarity After: CLR/FIL Artifacts:

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

SB-23 (1-2)

Contract: NY04-133

Lab Code: STLBLFO Case No.: SAS No.: SDG NO.: F190

Matrix (soil/water): SOIL Lab Sample ID: AD679980

Level (low/med): LOW Date Received: 12/18/2006

% Solids: 78

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-47-3	Chromium	37.1		E*	P

Color Before: BROWN Clarity Before: CLOUDY Texture: CLAY

Color After: YELLOW Clarity After: CLR/FIL Artifacts:

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

TP-1/ SL#1 (2-2.5)

Contract: NY04-133

Lab Code: STLBLFO Case No.: SAS No.: SDG NO.: F190

Matrix (soil/water): SOIL Lab Sample ID: AD679985

Level (low/med): LOW Date Received: 12/20/2006

% Solids: 81

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-47-3	Chromium	76.3		E*	P

Color Before: BROWN Clarity Before: CLOUDY Texture: MUD

Color After: YELLOW Clarity After: CLR/FIL Artifacts:

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

TP-1/ SL#2 (0-2.0)

Contract: NY04-133

Lab Code: STLBLFO Case No.: SAS No.: SDG NO.: F190

Matrix (soil/water): SOIL Lab Sample ID: AD679986

Level (low/med): LOW Date Received: 12/20/2006

% Solids: 94

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-47-3	Chromium	5.2		E*	P

Color Before: BROWN Clarity Before: CLOUDY Texture: GRAVEL

Color After: YELLOW Clarity After: CLR/FIL Artifacts:

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

TP-1/SL#1 (0.0-2.0)

Contract: NY04-133

Lab Code: STLBLFO Case No.: SAS No.: SDG NO.: F190

Matrix (soil/water): SOIL Lab Sample ID: AD679981

Level (low/med): LOW Date Received: 12/20/2006

% Solids: 67

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-47-3	Chromium	3690		E*	P

Color Before: YELLOW Clarity Before: CLEAR Texture: NONE

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: Benchmark Environmental & Engine **SDG No.:** F190 **Method Type:**

Sample ID: A6F28801-TCLP **Client ID:** TP-1/SL#1 (0.0-2.0)-TCLP

Matrix: WATER **Date Received:** 12/20/2006 **Date Collected:** 12/19/2006 **Level:** LOW

% Solids: **Sample Wt/Vol:** 50.0 **Final Vol:** 50.0

Prep Batch ID: A6B32695 **Prep Date:** 12/28/2006

Analyte	Concentration	Units	C	Qual	RL	RL	Dil	Analytical Date	Analytical Time	Instrument	Run	M
Chromium	**4590**	**ug/L**			**4.0**	4.0	**1**	**12/28/2006**	**18:34**	SUPERTRACE2	A12280x	P

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

TP-2 (2.5-3.0)

Contract: NY04-133

Lab Code: STLBLFO Case No.: SAS No.: SDG NO.: F190

Matrix (soil/water): SOIL Lab Sample ID: AD679987

Level (low/med): LOW Date Received: 12/20/2006

% Solids: 76

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-47-3	Chromium	33.6		E*	P

Color Before: BROWN Clarity Before: CLOUDY Texture: CLAY

Color After: YELLOW Clarity After: CLR/FIL Artifacts:

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

TP-3 SL#1 (0-2)

Contract: NY04-133

Lab Code: STLBLFO Case No.: SAS No.: SDG NO.: F190

Matrix (soil/water): SOIL Lab Sample ID: AD679988

Level (low/med): LOW Date Received: 12/20/2006

% Solids: 64

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-47-3	Chromium	6000		E*	P

Color Before: YELLOW Clarity Before: CLEAR Texture: NONE

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: Benchmark Environmental & Engine **SDG No.:** F190 **Method Type:**

Sample ID: A6F28809-TCLP **Client ID:** TP-3 SL#1 (0-2)-TCLP

Matrix: WATER **Date Received:** 12/20/2006 **Date Collected:** 12/19/2006 **Level:** LOW

% Solids: **Sample Wt/Vol:** 50.0 **Final Vol:** 50.0

Prep Batch ID: A6B32695 **Prep Date:** 12/28/2006

Analyte	Concentration	Units	C	Qual	RL	RL	Dil	Analytical Date	Time	Instrument	Run	M
Chromium	**3570**	**ug/L**			**4.0**	4.0	**1**	**12/28/2006**	**18:39**	SUPERTRACE2	A12280x	P

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

TP-3 SL#1 (2-3)

Contract: NY04-133

Lab Code: STLBLFO Case No.: SAS No.: SDG NO.: F190

Matrix (soil/water): SOIL Lab Sample ID: AD679989

Level (low/med): LOW Date Received: 12/20/2006

% Solids: 77

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-47-3	Chromium	35.6		E*	P

Color Before: BROWN Clarity Before: CLOUDY Texture: CLAY

Color After: YELLOW Clarity After: CLR/FIL Artifacts:

Comments:

Wet Chemistry Analysis

36/1103

Client Sample No.

BLIND DUP #1

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F190

Matrix (soil/water): SOIL Lab Sample ID: A6F36102

% Solids: 0.0 Date Samp/Recv: 12/19/2006 12/20/2006

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Hexavalent Chromium - Total	UG/G	129			A	7196A	01/06/2007

Comments:

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Wet Chemistry Analysis

37/1103

Client Sample No.

SB-17 (1-2)

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F190

Matrix (soil/water): SOIL Lab Sample ID: A6F19101

% Solids: 0.0 Date Samp/Recv: 12/18/2006 12/18/2006

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Hexavalent Chromium - Total	UG/G	0.50	U		A	7196A	12/22/2006

Comments:

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_____

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Wet Chemistry Analysis

38/1103

Client Sample No.

TP-1/SL#1 (0.0-2.0)

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F190

Matrix (soil/water): SOIL Lab Sample ID: A6F36101

% Solids: 0.0 Date Samp/Recv: 12/19/2006 12/20/2006

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Hexavalent Chromium - Total	UG/G	4.7			A	7196A	01/06/2007

Comments:

Wet Chemistry Analysis

39/1103

Client Sample No.

TP-1/SL#1 (0.0-2.0)

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F190

Matrix (soil/water): SOIL Lab Sample ID: A6F36101MS

% Solids: 0.0 Date Samp/Recv: 12/19/2006 12/20/2006

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Hexavalent Chromium - Total	UG/G	14.3			A	7196A	01/06/2007

Comments:

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Wet Chemistry Analysis

40/1103

Client Sample No.

TP-1/SL#1 (0.0-2.0)

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F190

Matrix (soil/water): SOIL Lab Sample ID: A6F36101SD

% Solids: 0.0 Date Samp/Recv: 12/19/2006 12/20/2006

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Hexavalent Chromium - Total	UG/G	7.7			A	7196A	01/06/2007

Comments:

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_____

_____

Wet Chemistry Analysis

41/1103

Client Sample No.

TP-1/SL#2 (0.0-2.0)

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F190

Matrix (soil/water): SOIL Lab Sample ID: A6F36104

% Solids: 0.0 Date Samp/Recv: 12/19/2006 12/20/2006

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Hexavalent Chromium - Total	UG/G	0.43	U		A	7196A	01/06/2007

Comments:

_____

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_____

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42/1103

Wet Chemistry Analysis

Client Sample No.

TP-3/SL#1 (0-2)

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F190

Matrix (soil/water): SOIL Lab Sample ID: A6F36106

% Solids: 0.0 Date Samp/Recv: 12/19/2006 12/20/2006

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Hexavalent Chromium - Total	UG/G	214			A	7196A	01/06/2007

Comments:

_____

_____

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ANALYTICAL REPORT

Job#: A06-F297,A06-F362

STL Project#: NY4A9217
SDG#: F297
Site Name: Benchmark
Task: 2250 Factory Outlet Blvd.

Mr. Mike Lesakowski
Benchmark Environmental
726 Exchange St., Ste 624
Buffalo, NY 14210

STL Buffalo

Brian J. Fischer
Project Manager

01/16/2007

SAMPLE SUMMARY

LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	SAMPLED DATE	SAMPLED TIME	RECEIVED DATE	RECEIVED TIME
A6F36202	BLIND DUP #2	SOIL	12/19/2006	09:05	12/20/2006	10:25
A6F29702	BLIND DUP#2	SOIL	12/19/2006	09:05	12/20/2006	10:25
A6F29715	TP-10 (0.0-1.5)	SOIL	12/20/2006	10:25	12/20/2006	10:25
A6F36215	TP-10(0.0-1.5)	SOIL	12/20/2006	10:25	12/20/2006	14:45
A6F29716	TP-11 (0.0-2.0)	SOIL	12/20/2006	11:19	12/20/2006	10:25
A6F36216	TP-11(0.0-2.0)	SOIL	12/20/2006	11:19	12/20/2006	14:45
A6F29717	TP-12 (1.5-2.5)	SOIL	12/20/2006	12:02	12/20/2006	10:25
A6F36217	TP-12(1.5-2.5)	SOIL	12/20/2006	12:02	12/20/2006	14:45
A6F29701	TP-2 (0.0-2.5)	SOIL	12/19/2006	11:30	12/20/2006	10:25
A6F29701MS	TP-2 (0.0-2.5)	SOIL	12/19/2006	11:30	12/20/2006	10:25
A6F29701SD	TP-2 (0.0-2.5)	SOIL	12/19/2006	11:30	12/20/2006	10:25
A6F36201	TP-2 (0.0-2.5)	SOIL	12/19/2006	11:30	12/20/2006	10:25
A6F29703	TP-3/SL#2 (0-2)	SOIL	12/19/2006	13:20	12/20/2006	10:25
A6F36203	TP-3/SL#2 (0-2)	SOIL	12/19/2006	13:20	12/20/2006	10:25
A6F29704	TP-4 (0.0-2.5)	SOIL	12/19/2006	13:46	12/20/2006	10:25
A6F36204	TP-4 (0.0-2.5)	SOIL	12/19/2006	13:46	12/20/2006	10:25
A6F29705	TP-4 (2.5-3.0)	SOIL	12/19/2006	13:50	12/20/2006	10:25
A6F29707	TP-5/SL#1 (2.0-2.5)	SOIL	12/19/2006	14:35	12/20/2006	10:25
A6F36207	TP-5/SL#1 (2.0-2.5)	SOIL	12/19/2006	14:35	12/20/2006	10:25
A6F29706	TP-5/SL#1 (2.5-3.0)	SOIL	12/19/2006	14:41	12/20/2006	10:25
A6F29708	TP-5/SL#2 (2.0-2.5)	SOIL	12/19/2006	14:43	12/20/2006	10:25
A6F36208	TP-5/SL#2 (2.0-2.5)	SOIL	12/19/2006	14:43	12/20/2006	10:25
A6F29709	TP-6/SL#1 (0.0-3.0)	SOIL	12/19/2006	15:30	12/20/2006	10:25
A6F36209	TP-6/SL#1 (0.0-3.0)	SOIL	12/19/2006	15:30	12/20/2006	10:25
A6F29710	TP-6/SL#1 (3.0-3.5)	SOIL	12/19/2006	15:37	12/20/2006	10:25
A6F29711	TP-6/SL#2 (0.0-3.0)	SOIL	12/19/2006	15:41	12/20/2006	10:25
A6F36211	TP-6/SL#2 (0.0-3.0)	SOIL	12/19/2006	15:41	12/20/2006	10:25
A6F29712	TP-7 (0.0-3.0)	SOIL	12/19/2006	16:31	12/20/2006	10:25
A6F36212	TP-7 (0.0-3.0)	SOIL	12/19/2006	16:31	12/20/2006	10:25
A6F29713	TP-8 (0.0-2.0)	SOIL	12/20/2006	08:50	12/20/2006	10:25
A6F36213	TP-8 (0.0-2.0)	SOIL	12/20/2006	08:50	12/20/2006	14:45
A6F29714	TP-9 (0.0-3.0)	SOIL	12/20/2006	09:45	12/20/2006	10:25
A6F36214	TP-9 (0.0-3.0)	SOIL	12/20/2006	09:45	12/20/2006	14:45

METHODS SUMMARY

Job#: A06-F297,A06-F362

STL Project#: NY4A9217
SDG#: F297
Site Name: Benchmark

PARAMETER	ANALYTICAL METHOD
Chromium - Total	ASP00 CLP-M
Chromium - Total	SW8463 6010
Hexavalent Chromium - Total	SW8463 7196A
Toxicity Characteristic Leaching Procedure	SW8463 1311

References:

ASP00 "Analytical Services Protocol", New York State Department of Conservation, June 2000.

SW8463 "Test Methods for Evaluating Solid Waste Physical/Chemical Methods (SW846), Third Edition, 9/86; Update I, 7/92; Update IIA, 8/93; Update II, 9/94; Update IIB, 1/95; Update III, 12/96.

NON-CONFORMANCE SUMMARY

Job#: A06-F297,A06-F362

STL Project#: NY4A9217
SDG#: F297
Site Name: Benchmark

General Comments

The enclosed data may or may not have been reported utilizing data qualifiers (Q) as defined on the Data Comment Page.

Soil, sediment and sludge sample results are reported on "dry weight" basis unless otherwise noted in this data package.

According to 40CFR Part 136.3, pH, Chlorine Residual, Dissolved Oxygen, Sulfite, and Temperature analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. pH-Field), they were not analyzed immediately, but as soon as possible after laboratory receipt.

Sample dilutions were performed as indicated on the attached Dilution Log. The rationale for dilution is specified by the 3-digit code and definition.

Sample Receipt Comments

A06-F297
Sample Cooler(s) were received at the following temperature(s); 3.0 °C
All samples were received in good condition.
A06-F362
Sample Cooler(s) were received at the following temperature(s); 3.0 °C
All samples were received in good condition.

Metals Data

The recoveries of sample TP-2 (0.0-2.5) Matrix Spike and Matrix Spike Duplicate exhibited results below the quality control limits for Chromium. The recoveries of TCLP sample TP-2 (0.0-2.5) exhibited results above the quality control limits for Chromium. The sample result is more than four times greater than the spike added. The RPD of sample TP-2 (0.0-2.5) Matrix Spike and Matrix Spike Duplicate exceeded the quality control limits for Chromium. The LCS's were acceptable.

The recovery of sample TP-2 (0.0-2.5) Post Spike exhibited a result below the quality control limits for Chromium. However, the LCS was acceptable.

The RPD of sample TP-2 (0.0-2.5) and the Matrix Duplicate exceeded the quality control limits for Chromium. However, the LCS was acceptable.

The Serial Dilution of sample TP-2 (0.0-2.5) exceeded the quality control limits for Chromium. However, the LCS was acceptable.

Wet Chemistry Data

Hexavalent Chromium was subcontracted to STL Pittsburgh. The complete subcontract report is included in this report as Appendix A. Comments pertaining to Hexavalent Chromium may be found within the comment summary of the subcontract report.

****

The results presented in this report relate only to the analytical testing and condition of the sample at receipt. This report pertains to only those samples actually tested. All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.

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-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

BLIND DUP#2

Contract: NY04-133

Lab Code: STLBLFO Case No.: SAS No.: SDG NO.: F297

Matrix (soil/water): SOIL Lab Sample ID: AD679997

Level (low/med): LOW Date Received: 12/20/2006

% Solids: 68

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-47-3	Chromium	6830		E*	P

Color Before: GRAY Clarity Before: CLOUDY Texture: COARSE

Color After: YELLOW Clarity After: CLR/FIL Artifacts:

Comments:

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Benchmark Environmental & Engineering Science

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: Benchmark Environmental & Engine **SDG No.:** F297 **Method Type:**

Sample ID: A6F29702-TCLP **Client ID:** BLIND DUP#2-TCLP

Matrix: WATER **Date Received:** 12/20/2006 **Date Collected:** 12/19/2006 **Level:** LOW

% Solids: **Sample Wt/Vol:** 50.0 **Final Vol:** 50.0

Prep Batch ID: A6B32695 **Prep Date:** 12/28/2006

Analyte	Concentration	Units	C	Qual	RL	RL	Dil	Analytical Date	Analytical Time	Instrument	Run	M
Chromium	**6770**	**ug/L**			**4.0**	4.0	**1**	**12/28/2006**	**19:08**	SUPERTRACE2	A12280x	P

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

TP-10 (0.0-1.5)

Contract: NY04-133

Lab Code: STLBLFO Case No.: SAS No.: SDG NO.: F297

Matrix (soil/water): SOIL Lab Sample ID: AD680010

Level (low/med): LOW Date Received: 12/20/2006

% Solids: 81

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-47-3	Chromium	964		E*	P

Color Before: BROWN Clarity Before: CLOUDY Texture: GRAVEL

Color After: YELLOW Clarity After: CLR/FIL Artifacts:

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: Benchmark Environmental & Engine **SDG No.:** F297 **Method Type:**

Sample ID: A6F29715-TCLP **Client ID:** TP-10 (0.0-1.5)-TCLP

Matrix: WATER **Date Received:** 12/20/2006 **Date Collected:** 12/20/2006 **Level:** LOW

% Solids: **Sample Wt/Vol:** 50.0 **Final Vol:** 50.0

Prep Batch ID: A6B32695 **Prep Date:** 12/28/2006

Analyte	Concentration	Units	C	Qual	RL	RL	Dil	Analytical Date	Time	Instrument	Run	M
Chromium	**2300**	**ug/L**			**4.0**	4.0	**1**	**12/28/2006**	**19:49**	SUPERTRACE2	A12280x	P

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

TP-11 (0.0-2.0)

Contract: NY04-133

Lab Code: STLBLFO Case No.: SAS No.: SDG NO.: F297

Matrix (soil/water): SOIL Lab Sample ID: AD680011

Level (low/med): LOW Date Received: 12/20/2006

% Solids: 76

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-47-3	Chromium	4830		E*	P

Color Before: GRAY Clarity Before: CLOUDY Texture: COARSE

Color After: YELLOW Clarity After: CLR/FIL Artifacts:

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: Benchmark Environmental & Engine **SDG No.:** F297 **Method Type:**

Sample ID: A6F29716-TCLP **Client ID:** TP-11 (0.0-2.0)-TCLP

Matrix: WATER **Date Received:** 12/20/2006 **Date Collected:** 12/20/2006 **Level:** LOW

% Solids: **Sample Wt/Vol:** 50.0 **Final Vol:** 50.0

Prep Batch ID: A6B32695 **Prep Date:** 12/28/2006

Analyte	Concentration	Units	C	Qual	RL	RL	Dil	Analytical Date	Analytical Time	Instrument	Run	M
Chromium	**8970**	**ug/L**			**4.0**	4.0	**1**	**12/28/2006**	**20:44**	SUPERTRACE2	A12280x	P

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

TP-12 (1.5-2.5)

Contract: NY04-133

Lab Code: STLBLFO Case No.: SAS No.: SDG NO.: F297

Matrix (soil/water): SOIL Lab Sample ID: AD680012

Level (low/med): LOW Date Received: 12/20/2006

% Solids: 63

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-47-3	Chromium	6710		E*	P

Color Before: GRAY Clarity Before: CLOUDY Texture: COARSE

Color After: YELLOW Clarity After: CLR/FIL Artifacts:

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: Benchmark Environmental & Engine **SDG No.:** F297 **Method Type:**

Sample ID: A6F29717-TCLP **Client ID:** TP-12 (1.5-2.5)-TCLP

Matrix: WATER **Date Received:** 12/20/2006 **Date Collected:** 12/20/2006 **Level:** LOW

% Solids: **Sample Wt/Vol:** 50.0 **Final Vol:** 50.0

Prep Batch ID: A6B32695 **Prep Date:** 12/28/2006

Analyte	Concentration	Units	C	Qual	RL	RL	Dil	Analytical Date	Analytical Time	Instrument	Run	M
Chromium	**3400**	**ug/L**			**4.0**	4.0	**1**	**12/28/2006**	**19:54**	SUPERTRACE2	A12280x	P

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

TP-2 (0.0-2.5)

Contract: NY04-133

Lab Code: STLBLFO Case No.: SAS No.: SDG NO.: F297

Matrix (soil/water): SOIL Lab Sample ID: AD679993

Level (low/med): LOW Date Received: 12/20/2006

% Solids: 73

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-47-3	Chromium	7980		E*	P

Color Before: GRAY Clarity Before: CLOUDY Texture: COARSE

Color After: YELLOW Clarity After: CLR/FIL Artifacts:

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: Benchmark Environmental & Engine **SDG No.:** F297 **Method Type:**

Sample ID: A6F29701-TCLP **Client ID:** TP-2 (0.0-2.5)-TCLP

Matrix: WATER **Date Received:** 12/20/2006 **Date Collected:** 12/19/2006 **Level:** LOW

% Solids: **Sample Wt/Vol:** 50.0 **Final Vol:** 50.0

Prep Batch ID: A6B32695 **Prep Date:** 12/28/2006

Analyte	Concentration	Units	C	Qual	RL	RL	Dil	Analytical Date	Analytical Time	Instrument	Run	M
Chromium	**6910**	**ug/L**			**4.0**	4.0	1	**12/28/2006**	**18:44**	SUPERTRACE2	A12280x	P

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

TP-3/SL#2 (0-2)

Contract: NY04-133

Lab Code: STLBLFO Case No.: SAS No.: SDG NO.: F297

Matrix (soil/water): SOIL Lab Sample ID: AD679998

Level (low/med): LOW Date Received: 12/20/2006

% Solids: 97

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-47-3	Chromium	4.6		E*	P

Color Before: BROWN Clarity Before: CLOUDY Texture: GRAVEL

Color After: YELLOW Clarity After: CLR/FIL Artifacts:

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

TP-4 (0.0-2.5)

Contract: NY04-133

Lab Code: STLBLFO Case No.: SAS No.: SDG NO.: F297

Matrix (soil/water): SOIL Lab Sample ID: AD679999

Level (low/med): LOW Date Received: 12/20/2006

% Solids: 67

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-47-3	Chromium	5410		E*	P

Color Before: BROWN Clarity Before: CLOUDY Texture: GRAVEL

Color After: YELLOW Clarity After: CLR/FIL Artifacts:

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

TP-4 (2.5-3.0)

Contract: NY04-133

Lab Code: STLBLFO Case No.: SAS No.: SDG NO.: F297

Matrix (soil/water): SOIL Lab Sample ID: AD680000

Level (low/med): LOW Date Received: 12/20/2006

% Solids: 76

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-47-3	Chromium	30.9		E*	P

Color Before: BROWN Clarity Before: CLOUDY Texture: CLAY

Color After: YELLOW Clarity After: CLR/FIL Artifacts:

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

TP-5/SL#1 (2.0-2.5)

Contract: NY04-133

Lab Code: STLBLFO Case No.: SAS No.: SDG NO.: F297

Matrix (soil/water): SOIL Lab Sample ID: AD680002

Level (low/med): LOW Date Received: 12/20/2006

% Solids: 80

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-47-3	Chromium	2460		E*	P

Color Before: BROWN Clarity Before: CLOUDY Texture: CLAY

Color After: YELLOW Clarity After: CLR/FIL Artifacts:

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: Benchmark Environmental & Engine **SDG No.:** F297 **Method Type:**

Sample ID: A6F29707-TCLP **Client ID:** TP-5/SL#1 (2.0-2.5)-TCLP

Matrix: WATER **Date Received:** 12/20/2006 **Date Collected:** 12/19/2006 **Level:** LOW

% Solids: **Sample Wt/Vol:** 50.0 **Final Vol:** 50.0

Prep Batch ID: A6B32695 **Prep Date:** 12/28/2006

Analyte	Concentration	Units	C	Qual	RL	RL	Dil	Analytical Date	Analytical Time	Instrument	Run	M
Chromium	**724**	**ug/L**			**4.0**	4.0	**1**	**12/28/2006**	**19:24**	SUPERTRACE2	A12280x	P

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

TP-5/SL#1 (2.5-3.0)

Contract: NY04-133

Lab Code: STLBLFO Case No.: SAS No.: SDG NO.: F297

Matrix (soil/water): SOIL Lab Sample ID: AD680001

Level (low/med): LOW Date Received: 12/20/2006

% Solids: 76

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-47-3	Chromium	32.1		E*	P

Color Before: BROWN Clarity Before: CLOUDY Texture: CLAY

Color After: YELLOW Clarity After: CLR/FIL Artifacts:

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

TP-5/SL#2 (2.0-2.5)

Contract: NY04-133

Lab Code: STLBLFO Case No.: SAS No.: SDG NO.: F297

Matrix (soil/water): SOIL Lab Sample ID: AD680003

Level (low/med): LOW Date Received: 12/20/2006

% Solids: 80

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-47-3	Chromium	45.5		E*	P

Color Before: BROWN Clarity Before: CLOUDY Texture: TOPSOIL

Color After: YELLOW Clarity After: CLR/FIL Artifacts:

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

TP-6/SL#1 (0.0-3.0)

Contract: NY04-133

Lab Code: STLBLFO Case No.: SAS No.: SDG NO.: F297

Matrix (soil/water): SOIL Lab Sample ID: AD680004

Level (low/med): LOW Date Received: 12/20/2006

% Solids: 69

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-47-3	Chromium	5100		E*	P

Color Before: GRAY Clarity Before: CLOUDY Texture: COARSE

Color After: YELLOW Clarity After: CLR/FIL Artifacts:

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: Benchmark Environmental & Engine **SDG No.:** F297 **Method Type:**

Sample ID: A6F29709-TCLP **Client ID:** TP-6/SL#1 (0.0-3.0)-TCLP

Matrix: WATER **Date Received:** 12/20/2006 **Date Collected:** 12/19/2006 **Level:** LOW

% Solids: **Sample Wt/Vol:** 50.0 **Final Vol:** 50.0

Prep Batch ID: A6B32695 **Prep Date:** 12/28/2006

Analyte	Concentration	Units	C	Qual	RL	RL	Dil	Analytical Date	Analytical Time	Instrument	Run	M
Chromium	**5310**	**ug/L**			**4.0**	4.0	**1**	**12/28/2006**	**19:29**	SUPERTRACE2	A12280x	P

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

TP-6/SL#1 (3.0-3.5)

Contract: NY04-133

Lab Code: STLBLFO Case No.: SAS No.: SDG NO.: F297

Matrix (soil/water): SOIL Lab Sample ID: AD680005

Level (low/med): LOW Date Received: 12/20/2006

% Solids: 70

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-47-3	Chromium	45.6		E*	P

Color Before: BROWN Clarity Before: CLOUDY Texture: CLAY

Color After: YELLOW Clarity After: CLR/FIL Artifacts:

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

TP-6/SL#2 (0.0-3.0)

Contract: NY04-133

Lab Code: STLBLFO Case No.: SAS No.: SDG NO.: F297

Matrix (soil/water): SOIL Lab Sample ID: AD680006

Level (low/med): LOW Date Received: 12/20/2006

% Solids: 95

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-47-3	Chromium	2.3		E*	P

Color Before: BROWN Clarity Before: CLOUDY Texture: GRAVEL

Color After: YELLOW Clarity After: CLR/FIL Artifacts:

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

TP-7 (0.0-3.0)

Contract: NY04-133

Lab Code: STLBLFO Case No.: SAS No.: SDG NO.: F297

Matrix (soil/water): SOIL Lab Sample ID: AD680007

Level (low/med): LOW Date Received: 12/20/2006

% Solids: 71

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-47-3	Chromium	4900		E*	P

Color Before: GRAY Clarity Before: CLOUDY Texture: COARSE

Color After: YELLOW Clarity After: CLR/FIL Artifacts:

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: Benchmark Environmental & Engine **SDG No.:** F297 **Method Type:**

Sample ID: A6F29712-TCLP **Client ID:** TP-7 (0.0-3.0)-TCLP

Matrix: WATER **Date Received:** 12/20/2006 **Date Collected:** 12/19/2006 **Level:** LOW

% Solids: **Sample Wt/Vol:** 50.0 **Final Vol:** 50.0

Prep Batch ID: A6B32695 **Prep Date:** 12/28/2006

Analyte	Concentration	Units	C	Qual	RL	RL	Dil	Analytical Date	Analytical Time	Instrument	Run	M
Chromium	**4730**	**ug/L**			**4.0**	4.0	**1**	**12/28/2006**	**19:34**	SUPERTRACE2	A12280x	P

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

TP-8 (0.0-2.0)

Contract: NY04-133

Lab Code: STLBLFO Case No.: SAS No.: SDG NO.: F297

Matrix (soil/water): SOIL Lab Sample ID: AD680008

Level (low/med): LOW Date Received: 12/20/2006

% Solids: 73

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-47-3	Chromium	2740		E*	P

Color Before: BROWN Clarity Before: CLOUDY Texture: GRAVEL

Color After: YELLOW Clarity After: CLR/FIL Artifacts:

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: Benchmark Environmental & Engine **SDG No.:** F297 **Method Type:**

Sample ID: A6F29713-TCLP **Client ID:** TP-8 (0.0-2.0)-TCLP

Matrix: WATER **Date Received:** 12/20/2006 **Date Collected:** 12/20/2006 **Level:** LOW

% Solids: **Sample Wt/Vol:** 50.0 **Final Vol:** 50.0

Prep Batch ID: A6B32695 **Prep Date:** 12/28/2006

Analyte	Concentration	Units	C	Qual	RL	RL	Dil	Analytical Date	Analytical Time	Instrument	Run	M
Chromium	**199**	**ug/L**			**4.0**	4.0	**1**	**12/28/2006**	**19:39**	SUPERTRACE2	A12280x	P

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

TP-9 (0.0-3.0)

Contract: NY04-133

Lab Code: STLBLFO Case No.: SAS No.: SDG NO.: F297

Matrix (soil/water): SOIL Lab Sample ID: AD680009

Level (low/med): LOW Date Received: 12/20/2006

% Solids: 71

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-47-3	Chromium	3250		E*	P

Color Before: GRAY Clarity Before: CLOUDY Texture: COARSE

Color After: YELLOW Clarity After: CLR/FIL Artifacts:

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: Benchmark Environmental & Engine **SDG No.:** F297 **Method Type:**

Sample ID: A6F29714-TCLP **Client ID:** TP-9 (0.0-3.0)-TCLP

Matrix: WATER **Date Received:** 12/20/2006 **Date Collected:** 12/20/2006 **Level:** LOW

% Solids: **Sample Wt/Vol:** 50.0 **Final Vol:** 50.0

Prep Batch ID: A6B32695 **Prep Date:** 12/28/2006

Analyte	Concentration	Units	C	Qual	RL	RL	Dil	Analytical Date	Analytical Time	Instrument	Run	M
Chromium	**1830**	**ug/L**			**4.0**	4.0	**1**	**12/28/2006**	**19:44**	SUPERTRACE2	A12280x	P

Comments:

Wet Chemistry Analysis

40/767

Client Sample No.

BLIND DUP #2

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F297

Matrix (soil/water): SOIL Lab Sample ID: A6F36202

% Solids: 0.0 Date Samp/Recv: 12/19/2006 12/20/2006

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Hexavalent Chromium - Total	UG/G	304			A	7196A	01/06/2007

Comments:

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Wet Chemistry Analysis

Client Sample No.: TP-10(0.0-1.5)

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F297

Matrix (soil/water): SOIL Lab Sample ID: A6F36215

% Solids: 0.0 Date Samp/Recv: 12/20/2006 12/20/2006

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Hexavalent Chromium - Total	UG/G	30.6			A	7196A	01/06/2007

Comments:

Wet Chemistry Analysis

Client Sample No.: TP-11(0.0-2.0)

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F297

Matrix (soil/water): SOIL Lab Sample ID: A6F36216

% Solids: 0.0 Date Samp/Recv: 12/20/2006 12/20/2006

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Hexavalent Chromium - Total	UG/G	113			A	7196A	01/06/2007

Comments:

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Wet Chemistry Analysis

Client Sample No.

TP-12(1.5-2.5)

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F297

Matrix (soil/water): SOIL Lab Sample ID: A6F36217

% Solids: 0.0 Date Samp/Recv: 12/20/2006 12/20/2006

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Hexavalent Chromium - Total	UG/G	227			A	7196A	01/06/2007

Comments:

Wet Chemistry Analysis

Client Sample No.: TP-2 (0.0-2.5)

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F297

Matrix (soil/water): SOIL Lab Sample ID: A6F36201

% Solids: 0.0 Date Samp/Recv: 12/19/2006 12/20/2006

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Hexavalent Chromium - Total	UG/G	358			A	7196A	01/06/2007

Comments:

Wet Chemistry Analysis

Client Sample No.: TP-3/SL#2 (0-2)

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F297

Matrix (soil/water): SOIL Lab Sample ID: A6F36203

% Solids: 0.0 Date Samp/Recv: 12/19/2006 12/20/2006

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Hexavalent Chromium - Total	UG/G	0.45	U		A	7196A	01/06/2007

Comments:

Wet Chemistry Analysis

46/767

Client Sample No.

TP-4 (0.0-2.5)

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F297

Matrix (soil/water): SOIL Lab Sample ID: A6F36204

% Solids: 0.0 Date Samp/Recv: 12/19/2006 12/20/2006

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Hexavalent Chromium - Total	UG/G	257			A	7196A	01/06/2007

Comments:

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FORM I IC

Wet Chemistry Analysis

47/767

Client Sample No.

TP-5/SL#1 (2.0-2.5)

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F297

Matrix (soil/water): SOIL Lab Sample ID: A6F36207

% Solids: 0.0 Date Samp/Recv: 12/19/2006 12/20/2006

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Hexavalent Chromium - Total	UG/G	31.1			A	7196A	01/06/2007

Comments:

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Wet Chemistry Analysis

Client Sample No.

TP-5/SL#2 (2.0-2.5)

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F297

Matrix (soil/water): SOIL Lab Sample ID: A6F36208

% Solids: 0.0 Date Samp/Recv: 12/19/2006 12/20/2006

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Hexavalent Chromium - Total	UG/G	0.50	U		A	7196A	01/06/2007

Comments:

Wet Chemistry Analysis

Client Sample No.

TP-6/SL#1 (0.0-3.0)

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F297

Matrix (soil/water): SOIL Lab Sample ID: A6F36209

% Solids: 0.0 Date Samp/Recv: 12/19/2006 12/20/2006

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Hexavalent Chromium - Total	UG/G	158			A	7196A	01/06/2007

Comments:

Wet Chemistry Analysis

50/767

Client Sample No.

TP-6/SL#2 (0.0-3.0)

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F297

Matrix (soil/water): SOIL Lab Sample ID: A6F36211

% Solids: 0.0 Date Samp/Recv: 12/19/2006 12/20/2006

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Hexavalent Chromium - Total	UG/G	0.43	U		A	7196A	01/06/2007

Comments:

Wet Chemistry Analysis

51/767

Client Sample No.

TP-7 (0.0-3.0)

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F297

Matrix (soil/water): SOIL Lab Sample ID: A6F36212

% Solids: 0.0 Date Samp/Recv: 12/19/2006 12/20/2006

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Hexavalent Chromium - Total	UG/G	156			A	7196A	01/06/2007

Comments:

Wet Chemistry Analysis

52/767

Client Sample No.

TP-8 (0.0-2.0)

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F297

Matrix (soil/water): SOIL Lab Sample ID: A6F36213

% Solids: 0.0 Date Samp/Recv: 12/20/2006 12/20/2006

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Hexavalent Chromium - Total	UG/G	52.7			A	7196A	01/06/2007

Comments:

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Wet Chemistry Analysis

53/767

Client Sample No.

TP-9 (0.0-3.0)

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F297

Matrix (soil/water): SOIL Lab Sample ID: A6F36214

% Solids: 0.0 Date Samp/Recv: 12/20/2006 12/20/2006

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Hexavalent Chromium - Total	UG/G	32.7			A	7196A	01/06/2007

Comments:

ANALYTICAL REPORT

Job#: A06-F405

STL Project#: NY4A9217
SDG#: F405
Site Name: Benchmark
Task: 2250 Factory Outlet Blvd.

Mr. Mike Lesakowski
Benchmark Environmental
726 Exchange St., Ste 624
Buffalo, NY 14210

STL Buffalo

Brian J. Fischer
Project Manager

01/18/2007

SAMPLE SUMMARY

LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	SAMPLED DATE	SAMPLED TIME	RECEIVED DATE	RECEIVED TIME
A6F40502	BLIND DUP#1	SOIL	12/21/2006	09:05	12/22/2006	11:40
A6F40503	MW-1 (6-8)	SOIL	12/21/2006	13:10	12/22/2006	11:40
A6F40504	MW-2 (2-4)	SOIL	12/21/2006	15:07	12/22/2006	11:40
A6F40505	MW-3 (8-10)	SOIL	12/21/2006	10:00	12/22/2006	11:40
A6F40501	SS-1,2 COMP	SOIL	12/21/2006	08:30	12/22/2006	11:40
A6F40501MS	SS-1,2 COMP	SOIL	12/21/2006	08:30	12/22/2006	11:40
A6F40501SD	SS-1,2 COMP	SOIL	12/21/2006	08:30	12/22/2006	11:40

METHODS SUMMARY

Job#: A06-F405

STL Project#: NY4A9217
SDG#: F405
Site Name: Benchmark

PARAMETER	ANALYTICAL METHOD	
BENCHMARK - SOIL - ASP00 (CLP) SEMIVOLATILES	ASP00	EPA SVOA
BENCHMARK - SOIL - ASP00 (CLP) PESTICIDES/AROCLORS	ASP00	EPA P/PCB
STEELFIELDS - ASP00 8151 - HERBICIDES - S	ASP00	8151
Aluminum - Total	ASP00	CLP-M
Antimony - Total	ASP00	CLP-M
Arsenic - Total	ASP00	CLP-M
Barium - Total	ASP00	CLP-M
Beryllium - Total	ASP00	CLP-M
Cadmium - Total	ASP00	CLP-M
Calcium - Total	ASP00	CLP-M
Chromium - Total	ASP00	CLP-M
Cobalt - Total	ASP00	CLP-M
Copper - Total	ASP00	CLP-M
Iron - Total	ASP00	CLP-M
Lead - Total	ASP00	CLP-M
Magnesium - Total	ASP00	CLP-M
Manganese - Total	ASP00	CLP-M
Mercury - Total	ASP00	CLP-M
Nickel - Total	ASP00	CLP-M
Potassium - Total	ASP00	CLP-M
Selenium - Total	ASP00	CLP-M
Silver - Total	ASP00	CLP-M
Sodium - Total	ASP00	CLP-M
Thallium - Total	ASP00	CLP-M
Vanadium - Total	ASP00	CLP-M
Zinc - Total	ASP00	CLP-M
Leachable pH	SW8463	9045

References:

ASP00 "Analytical Services Protocol", New York State Department of Conservation, June 2000.

SW8463 "Test Methods for Evaluating Solid Waste Physical/Chemical Methods (SW846), Third Edition, 9/86; Update I, 7/92; Update IIA, 8/93; Update II, 9/94; Update IIB, 1/95; Update III, 12/96.

NON-CONFORMANCE SUMMARY

Job#: A06-F405

STL Project#: NY4A9217
SDG#: F405
Site Name: Benchmark

General Comments

The enclosed data may or may not have been reported utilizing data qualifiers (Q) as defined on the Data Comment Page.

Soil, sediment and sludge sample results are reported on "dry weight" basis unless otherwise noted in this data package.

According to 40CFR Part 136.3, pH, Chlorine Residual, Dissolved Oxygen, Sulfite, and Temperature analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. pH-Field), they were not analyzed immediately, but as soon as possible after laboratory receipt.

Sample dilutions were performed as indicated on the attached Dilution Log. The rationale for dilution is specified by the 3-digit code and definition.

Sample Receipt Comments

A06-F405
Sample Cooler(s) were received at the following temperature(s); 2.0 °C
All samples were received in good condition.

GC/MS Semivolatile Data

The chromatographic peaks for Benzo(b)fluoranthene and Benzo(k)fluoranthene could not be resolved for sample Matrix Spike SS-1,2 COMP due to the sample matrix. The final value is reported as Benzo(b)fluoranthene in this data package but should be considered an and/or value for both compounds.

GC Extractable Data

For Method 8151, the percent recovery (%R) of surrogate Dichlorophenyl Acetic Acid (DCBP) in sample SS-1,2 Comp Matrix Spike is outside of established quality control limits due to sample matrix interferences. The recovery of all other surrogates in the remaining samples and associated quality control samples within this extraction batch are within expected limits. No corrective action is required.

For method CLP Pesticide/PCB analysis, the recovery of surrogate Decachlorobiphenyl in several samples is outside of established quality control limits on one or both columns due to the sample matrix. The recovery of surrogate Tetrachloro-m-xylene on both columns is within quality control criteria; no corrective action is required.

For method PESTICIDE/PCBs, the recovery for 4,4'-DDT in the Matrix Spike of sample SS-1,2COMP exceeds quality control limits, though the Matrix Spike Blank recoveries are compliant.

For method 8151, several compounds exhibited a percent difference (%D) of greater than 15% from the expected amount in the associated continuing calibrations. The average of all analytes is within 15% and the associated laboratory quality control recoveries are compliant. No corrective action was required.

Metals Data

The recoveries of sample SS-1,2 COMP Matrix Spike and Matrix Spike Duplicate exhibited results above the quality control limits for Lead and Manganese(MS). The sample result is more than four times greater than the spike added. The RPD of sample SS-1,2 COMP Matrix Spike and Matrix Spike Duplicate exceeded the quality control limits for Manganese. The LCS is acceptable.

The recoveries of sample SS-1,2 COMP Matrix Spike and Matrix Spike Duplicate exhibited results above the quality control limits for Antimony(MSD), Arsenic, Copper, and Zinc(MSD) and below the quality control limits for Chromium. Sample matrix is suspect. However, the LCS was acceptable.

The recoveries of sample SS-1,2 COMP Post Spike exhibited results below the quality control limits for Iron and Manganese. However, the Serial Dilution of this sample was compliant for Iron and Manganese. Therefore, no corrective action is necessary.

The RPD of sample SS-1,2 COMP and the Matrix Duplicate exceeded the quality control limits for Calcium. However, the LCS was acceptable.

The Serial Dilution of sample SS-1,2 COMP exceeded the quality control limits for Zinc. However, the Post Spike of this sample was compliant for Zinc. Therefore, no corrective action is necessary.

Wet Chemistry Data

No deviations from protocol were encountered during the analytical procedures.

****

BENCHMARK - SOIL - ASP00 (CLP) SEMIVOLATILES
ANALYSIS DATA SHEET

Client No.

BLIND DUP#1

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F405

Matrix: (soil/water) SOIL Lab Sample ID: A6F40502

Sample wt/vol: 30.05 (g/mL) G Lab File ID: V18847.RR

Level: (low/med) LOW Date Samp/Recv: 12/21/2006 12/22/2006

% Moisture: 22 decanted: (Y/N) N Date Extracted: 12/26/2006

Concentrated Extract Volume: 500 (uL) Date Analyzed: 01/03/2007

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-52-7	Benzaldehyde	840	U
108-95-2	Phenol	420	U
111-44-4	Bis(2-chloroethyl) ether	420	U
95-57-8	2-Chlorophenol	420	U
95-48-7	2-Methylphenol	420	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	420	U
98-86-2	Acetophenone	840	U
106-44-5	4-Methylphenol	420	U
621-64-7	N-Nitroso-Di-n-propylamine	420	U
67-72-1	Hexachloroethane	420	U
98-95-3	Nitrobenzene	420	U
78-59-1	Isophorone	420	U
88-75-5	2-Nitrophenol	420	U
105-67-9	2,4-Dimethylphenol	420	U
111-91-1	Bis(2-chloroethoxy) methane	420	U
120-83-2	2,4-Dichlorophenol	420	U
91-20-3	Naphthalene	33	J
106-47-8	4-Chloroaniline	420	U
87-68-3	Hexachlorobutadiene	420	U
105-60-2	Caprolactam	840	U
59-50-7	4-Chloro-3-methylphenol	420	U
91-57-6	2-Methylnaphthalene	40	J
77-47-4	Hexachlorocyclopentadiene	420	U
88-06-2	2,4,6-Trichlorophenol	420	U
95-95-4	2,4,5-Trichlorophenol	1000	U
92-52-4	Biphenyl	840	U
91-58-7	2-Chloronaphthalene	420	U
88-74-4	2-Nitroaniline	1000	U
131-11-3	Dimethyl phthalate	420	U
606-20-2	2,6-Dinitrotoluene	420	U
208-96-8	Acenaphthylene	75	J
99-09-2	3-Nitroaniline	1000	U

BENCHMARK - SOIL - ASP00 (CLP) SEMIVOLATILES
ANALYSIS DATA SHEET

Client No.

BLIND DUP#1

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F405

Matrix: (soil/water) SOIL Lab Sample ID: A6F40502

Sample wt/vol: 30.05 (g/mL) G Lab File ID: V18847.RR

Level: (low/med) LOW Date Samp/Recv: 12/21/2006 12/22/2006

% Moisture: 22 decanted: (Y/N) N Date Extracted: 12/26/2006

Concentrated Extract Volume: 500 (uL) Date Analyzed: 01/03/2007

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
83-32-9	Acenaphthene	26	J
51-28-5	2,4-Dinitrophenol	1000	U
100-02-7	4-Nitrophenol	1000	U
132-64-9	Dibenzofuran	28	J
121-14-2	2,4-Dinitrotoluene	420	U
84-66-2	Diethyl phthalate	420	U
86-73-7	Fluorene	29	J
7005-72-3	4-Chlorophenyl phenyl ether	420	U
100-01-6	4-Nitroaniline	1000	U
534-52-1	4,6-Dinitro-2-methylphenol	1000	U
86-30-6	N-nitrosodiphenylamine	420	U
101-55-3	4-Bromophenyl phenyl ether	420	U
118-74-1	Hexachlorobenzene	420	U
1912-24-9	Atrazine	840	U
87-86-5	Pentachlorophenol	1000	U
85-01-8	Phenanthrene	360	J
120-12-7	Anthracene	100	J
86-74-8	Carbazole	69	J
84-74-2	Di-n-butyl phthalate	29	BJ
206-44-0	Fluoranthene	790	
129-00-0	Pyrene	500	
85-68-7	Butyl benzyl phthalate	420	U
91-94-1	3,3'-Dichlorobenzidine	420	U
56-55-3	Benzo(a)anthracene	480	
218-01-9	Chrysene	560	
117-81-7	Bis(2-ethylhexyl) phthalate	93	BJ
117-84-0	Di-n-octyl phthalate	25	J
205-99-2	Benzo(b)fluoranthene	940	
207-08-9	Benzo(k)fluoranthene	250	J
50-32-8	Benzo(a)pyrene	520	
193-39-5	Indeno(1,2,3-cd)pyrene	220	J
53-70-3	Dibenzo(a,h)anthracene	68	J

BENCHMARK - SOIL - ASP00 (CLP) SEMIVOLATILES
ANALYSIS DATA SHEET

Client No.

BLIND DUP#1

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F405

Matrix: (soil/water) SOIL Lab Sample ID: A6F40502

Sample wt/vol: 30.05 (g/mL) G Lab File ID: V18847.RR

Level: (low/med) LOW Date Samp/Recv: 12/21/2006 12/22/2006

% Moisture: 22 decanted: (Y/N) N Date Extracted: 12/26/2006

Concentrated Extract Volume: 500 (uL) Date Analyzed: 01/03/2007

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
191-24-2	Benzo(ghi)perylene	140	J

BENCHMARK - SOIL - ASP00 (CLP) SEMIVOLATILES
TENTATIVELY IDENTIFIED COMPOUNDS

Client No.

BLIND DUP#1

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F405

Matrix: (soil/water) SOIL Lab Sample ID: A6F40502

Sample wt/vol: 30.05 (g/mL) G Lab File ID: V18847.RR

Level: (low/med) LOW Date Samp/Recv: 12/21/2006 12/22/2006

% Moisture: 21.9 decanted: (Y/N) N Date Extracted: 12/26/2006

Concentrated Extract Volume: 500 (uL) Date Analyzed: 01/03/2007

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.4

Number TICs found: 20

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

	CAS NO.	Compound Name	RT	Est. Conc.	Q
1.		SUSPECTED ALDOL COND PRODUCT	3.33	12000	BJ
2.		UNKNOWN	3.44	150	J
3.		UNKNOWN	6.12	270	BJ
4.		UNKNOWN HYDROCARBON	12.03	160	J
5.		UNKNOWN	12.34	100	J
6.		UNKNOWN PAH DERIVATIVE	13.20	95	J
7.		UNKNOWN PAH DERIVATIVE	13.22	200	J
8.		UNKNOWN	13.27	150	J
9.		UNKNOWN HYDROCARBON	13.48	120	J
10.		UNKNOWN PAH DERIVATIVE	13.77	110	J
11.		UNKNOWN	13.81	130	J
12.		UNKNOWN	14.00	110	J
13.	57-11-4	OCTADECANOIC ACID	14.08	190	JN
14.		UNKNOWN PAH DERIVATIVE	15.01	94	J
15.		UNKNOWN HYDROCARBON	15.67	260	J
16.		UNKNOWN STEROL	17.67	270	J
17.		UNKNOWN SITOSTEROL ISOMER	17.95	560	J
18.		UNKNOWN	18.02	380	J
19.		UNKNOWN	18.64	190	J
20.		UNKNOWN PAH DERIVATIVE	19.46	510	J

BENCHMARK - SOIL - ASP00 (CLP) SEMIVOLATILES
ANALYSIS DATA SHEET

Client No.

MW-1 (6-8)

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F405

Matrix: (soil/water) SOIL Lab Sample ID: A6F40503

Sample wt/vol: 30.27 (g/mL) G Lab File ID: V18848.RR

Level: (low/med) LOW Date Samp/Recv: 12/21/2006 12/22/2006

% Moisture: 20 decanted: (Y/N) N Date Extracted: 12/26/2006

Concentrated Extract Volume: 500 (uL) Date Analyzed: 01/03/2007

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-52-7	Benzaldehyde	810	U
108-95-2	Phenol	410	U
111-44-4	Bis(2-chloroethyl) ether	410	U
95-57-8	2-Chlorophenol	410	U
95-48-7	2-Methylphenol	410	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	410	U
98-86-2	Acetophenone	810	U
106-44-5	4-Methylphenol	410	U
621-64-7	N-Nitroso-Di-n-propylamine	410	U
67-72-1	Hexachloroethane	410	U
98-95-3	Nitrobenzene	410	U
78-59-1	Isophorone	410	U
88-75-5	2-Nitrophenol	410	U
105-67-9	2,4-Dimethylphenol	410	U
111-91-1	Bis(2-chloroethoxy) methane	410	U
120-83-2	2,4-Dichlorophenol	410	U
91-20-3	Naphthalene	410	U
106-47-8	4-Chloroaniline	410	U
87-68-3	Hexachlorobutadiene	410	U
105-60-2	Caprolactam	810	U
59-50-7	4-Chloro-3-methylphenol	410	U
91-57-6	2-Methylnaphthalene	410	U
77-47-4	Hexachlorocyclopentadiene	410	U
88-06-2	2,4,6-Trichlorophenol	410	U
95-95-4	2,4,5-Trichlorophenol	990	U
92-52-4	Biphenyl	810	U
91-58-7	2-Chloronaphthalene	410	U
88-74-4	2-Nitroaniline	990	U
131-11-3	Dimethyl phthalate	410	U
606-20-2	2,6-Dinitrotoluene	410	U
208-96-8	Acenaphthylene	410	U
99-09-2	3-Nitroaniline	990	U

BENCHMARK - SOIL - ASP00 (CLP) SEMIVOLATILES
ANALYSIS DATA SHEET

Client No.

MW-1 (6-8)

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F405

Matrix: (soil/water) SOIL Lab Sample ID: A6F40503

Sample wt/vol: 30.27 (g/mL) G Lab File ID: V18848.RR

Level: (low/med) LOW Date Samp/Recv: 12/21/2006 12/22/2006

% Moisture: 20 decanted: (Y/N) N Date Extracted: 12/26/2006

Concentrated Extract Volume: 500 (uL) Date Analyzed: 01/03/2007

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
83-32-9	Acenaphthene	410	U
51-28-5	2,4-Dinitrophenol	990	U
100-02-7	4-Nitrophenol	990	U
132-64-9	Dibenzofuran	410	U
121-14-2	2,4-Dinitrotoluene	410	U
84-66-2	Diethyl phthalate	410	U
86-73-7	Fluorene	410	U
7005-72-3	4-Chlorophenyl phenyl ether	410	U
100-01-6	4-Nitroaniline	990	U
534-52-1	4,6-Dinitro-2-methylphenol	990	U
86-30-6	N-nitrosodiphenylamine	410	U
101-55-3	4-Bromophenyl phenyl ether	410	U
118-74-1	Hexachlorobenzene	410	U
1912-24-9	Atrazine	810	U
87-86-5	Pentachlorophenol	990	U
85-01-8	Phenanthrene	410	U
120-12-7	Anthracene	410	U
86-74-8	Carbazole	410	U
84-74-2	Di-n-butyl phthalate	24	BJ
206-44-0	Fluoranthene	410	U
129-00-0	Pyrene	410	U
85-68-7	Butyl benzyl phthalate	410	U
91-94-1	3,3'-Dichlorobenzidine	410	U
56-55-3	Benzo(a)anthracene	410	U
218-01-9	Chrysene	410	U
117-81-7	Bis(2-ethylhexyl) phthalate	93	BJ
117-84-0	Di-n-octyl phthalate	410	U
205-99-2	Benzo(b)fluoranthene	410	U
207-08-9	Benzo(k)fluoranthene	410	U
50-32-8	Benzo(a)pyrene	410	U
193-39-5	Indeno(1,2,3-cd)pyrene	410	U
53-70-3	Dibenzo(a,h)anthracene	410	U

BENCHMARK - SOIL - ASP00 (CLP) SEMIVOLATILES
ANALYSIS DATA SHEET

Client No.

MW-1 (6-8)

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F405

Matrix: (soil/water) SOIL Lab Sample ID: A6F40503

Sample wt/vol: 30.27 (g/mL) G Lab File ID: V18848.RR

Level: (low/med) LOW Date Samp/Recv: 12/21/2006 12/22/2006

% Moisture: 20 decanted: (Y/N) N Date Extracted: 12/26/2006

Concentrated Extract Volume: 500 (uL) Date Analyzed: 01/03/2007

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
191-24-2	Benzo(ghi)perylene	410	U

BENCHMARK - SOIL - ASP00 (CLP) SEMIVOLATILES
TENTATIVELY IDENTIFIED COMPOUNDS

Client No.

MW-1 (6-8)

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F405

Matrix: (soil/water) SOIL Lab Sample ID: A6F40503

Sample wt/vol: 30.27 (g/mL) G Lab File ID: V18848.RR

Level: (low/med) LOW Date Samp/Recv: 12/21/2006 12/22/2006

% Moisture: 19.7 decanted: (Y/N) N Date Extracted: 12/26/2006

Concentrated Extract Volume: 500 (uL) Date Analyzed: 01/03/2007

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.3

Number TICs found: 3

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q
1.	SUSPECTED ALDOL COND PRODUCT	3.34	14000	BJ
2.	UNKNOWN	6.12	280	BJ
3. 57-11-4	OCTADECANOIC ACID	14.08	100	JN

BENCHMARK - SOIL - ASP00 (CLP) SEMIVOLATILES
ANALYSIS DATA SHEET

Client No.

MW-2 (2-4)

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F405

Matrix: (soil/water) SOIL Lab Sample ID: A6F40504

Sample wt/vol: 30.37 (g/mL) G Lab File ID: V18849.RR

Level: (low/med) LOW Date Samp/Recv: 12/21/2006 12/22/2006

% Moisture: 20 decanted: (Y/N) N Date Extracted: 12/26/2006

Concentrated Extract Volume: 500 (uL) Date Analyzed: 01/03/2007

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-52-7	Benzaldehyde	820	U
108-95-2	Phenol	410	U
111-44-4	Bis(2-chloroethyl) ether	410	U
95-57-8	2-Chlorophenol	410	U
95-48-7	2-Methylphenol	410	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	410	U
98-86-2	Acetophenone	820	U
106-44-5	4-Methylphenol	410	U
621-64-7	N-Nitroso-Di-n-propylamine	410	U
67-72-1	Hexachloroethane	410	U
98-95-3	Nitrobenzene	410	U
78-59-1	Isophorone	410	U
88-75-5	2-Nitrophenol	410	U
105-67-9	2,4-Dimethylphenol	410	U
111-91-1	Bis(2-chloroethoxy) methane	410	U
120-83-2	2,4-Dichlorophenol	410	U
91-20-3	Naphthalene	410	U
106-47-8	4-Chloroaniline	410	U
87-68-3	Hexachlorobutadiene	410	U
105-60-2	Caprolactam	820	U
59-50-7	4-Chloro-3-methylphenol	410	U
91-57-6	2-Methylnaphthalene	410	U
77-47-4	Hexachlorocyclopentadiene	410	U
88-06-2	2,4,6-Trichlorophenol	410	U
95-95-4	2,4,5-Trichlorophenol	990	U
92-52-4	Biphenyl	820	U
91-58-7	2-Chloronaphthalene	410	U
88-74-4	2-Nitroaniline	990	U
131-11-3	Dimethyl phthalate	410	U
606-20-2	2,6-Dinitrotoluene	410	U
208-96-8	Acenaphthylene	410	U
99-09-2	3-Nitroaniline	990	U

BENCHMARK - SOIL - ASP00 (CLP) SEMIVOLATILES
ANALYSIS DATA SHEET

Client No.

MW-2 (2-4)

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F405

Matrix: (soil/water) SOIL Lab Sample ID: A6F40504

Sample wt/vol: 30.37 (g/mL) G Lab File ID: V18849.RR

Level: (low/med) LOW Date Samp/Recv: 12/21/2006 12/22/2006

% Moisture: 20 decanted: (Y/N) N Date Extracted: 12/26/2006

Concentrated Extract Volume: 500 (uL) Date Analyzed: 01/03/2007

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
83-32-9	Acenaphthene	410	U
51-28-5	2,4-Dinitrophenol	990	U
100-02-7	4-Nitrophenol	990	U
132-64-9	Dibenzofuran	410	U
121-14-2	2,4-Dinitrotoluene	410	U
84-66-2	Diethyl phthalate	410	U
86-73-7	Fluorene	410	U
7005-72-3	4-Chlorophenyl phenyl ether	410	U
100-01-6	4-Nitroaniline	990	U
534-52-1	4,6-Dinitro-2-methylphenol	990	U
86-30-6	N-nitrosodiphenylamine	410	U
101-55-3	4-Bromophenyl phenyl ether	410	U
118-74-1	Hexachlorobenzene	410	U
1912-24-9	Atrazine	820	U
87-86-5	Pentachlorophenol	990	U
85-01-8	Phenanthrene	410	U
120-12-7	Anthracene	410	U
86-74-8	Carbazole	410	U
84-74-2	Di-n-butyl phthalate	21	BJ
206-44-0	Fluoranthene	410	U
129-00-0	Pyrene	410	U
85-68-7	Butyl benzyl phthalate	410	U
91-94-1	3,3'-Dichlorobenzidine	410	U
56-55-3	Benzo(a)anthracene	410	U
218-01-9	Chrysene	410	U
117-81-7	Bis(2-ethylhexyl) phthalate	96	BJ
117-84-0	Di-n-octyl phthalate	410	U
205-99-2	Benzo(b)fluoranthene	410	U
207-08-9	Benzo(k)fluoranthene	410	U
50-32-8	Benzo(a)pyrene	410	U
193-39-5	Indeno(1,2,3-cd)pyrene	410	U
53-70-3	Dibenzo(a,h)anthracene	410	U

BENCHMARK - SOIL - ASP00 (CLP) SEMIVOLATILES
ANALYSIS DATA SHEET

Client No.

MW-2 (2-4)

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F405

Matrix: (soil/water) SOIL Lab Sample ID: A6F40504

Sample wt/vol: 30.37 (g/mL) G Lab File ID: V18849.RR

Level: (low/med) LOW Date Samp/Recv: 12/21/2006 12/22/2006

% Moisture: 20 decanted: (Y/N) N Date Extracted: 12/26/2006

Concentrated Extract Volume: 500 (uL) Date Analyzed: 01/03/2007

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
191-24-2	Benzo(ghi)perylene	410	U

BENCHMARK - SOIL - ASP00 (CLP) SEMIVOLATILES
TENTATIVELY IDENTIFIED COMPOUNDS

Client No.

MW-2 (2-4)

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F405

Matrix: (soil/water) SOIL Lab Sample ID: A6F40504

Sample wt/vol: 30.37 (g/mL) G Lab File ID: V18849.RR

Level: (low/med) LOW Date Samp/Recv: 12/21/2006 12/22/2006

% Moisture: 20.4 decanted: (Y/N) N Date Extracted: 12/26/2006

Concentrated Extract Volume: 500 (uL) Date Analyzed: 01/03/2007

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.4

Number TICs found: 3

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

	CAS NO.	Compound Name	RT	Est. Conc.	Q
1.		SUSPECTED ALDOL COND PRODUCT	3.33	14000	BJ
2.		UNKNOWN	6.12	290	BJ
3.		UNKNOWN	13.81	300	J

BENCHMARK - SOIL - ASP00 (CLP) SEMIVOLATILES
ANALYSIS DATA SHEET

Client No.

MW-3 (8-10)

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F405

Matrix: (soil/water) SOIL Lab Sample ID: A6F40505

Sample wt/vol: 30.70 (g/mL) G Lab File ID: V18850.RR

Level: (low/med) LOW Date Samp/Recv: 12/21/2006 12/22/2006

% Moisture: 21 decanted: (Y/N) N Date Extracted: 12/26/2006

Concentrated Extract Volume: 500 (uL) Date Analyzed: 01/03/2007

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-52-7	Benzaldehyde	820	U
108-95-2	Phenol	410	U
111-44-4	Bis(2-chloroethyl) ether	410	U
95-57-8	2-Chlorophenol	410	U
95-48-7	2-Methylphenol	410	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	410	U
98-86-2	Acetophenone	820	U
106-44-5	4-Methylphenol	410	U
621-64-7	N-Nitroso-Di-n-propylamine	410	U
67-72-1	Hexachloroethane	410	U
98-95-3	Nitrobenzene	410	U
78-59-1	Isophorone	410	U
88-75-5	2-Nitrophenol	410	U
105-67-9	2,4-Dimethylphenol	410	U
111-91-1	Bis(2-chloroethoxy) methane	410	U
120-83-2	2,4-Dichlorophenol	410	U
91-20-3	Naphthalene	410	U
106-47-8	4-Chloroaniline	410	U
87-68-3	Hexachlorobutadiene	410	U
105-60-2	Caprolactam	820	U
59-50-7	4-Chloro-3-methylphenol	410	U
91-57-6	2-Methylnaphthalene	410	U
77-47-4	Hexachlorocyclopentadiene	410	U
88-06-2	2,4,6-Trichlorophenol	410	U
95-95-4	2,4,5-Trichlorophenol	990	U
92-52-4	Biphenyl	820	U
91-58-7	2-Chloronaphthalene	410	U
88-74-4	2-Nitroaniline	990	U
131-11-3	Dimethyl phthalate	410	U
606-20-2	2,6-Dinitrotoluene	410	U
208-96-8	Acenaphthylene	410	U
99-09-2	3-Nitroaniline	990	U

BENCHMARK - SOIL - ASP00 (CLP) SEMIVOLATILES
ANALYSIS DATA SHEET

Client No.

MW-3 (8-10)

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F405

Matrix: (soil/water) SOIL Lab Sample ID: A6F40505

Sample wt/vol: 30.70 (g/mL) G Lab File ID: V18850.RR

Level: (low/med) LOW Date Samp/Recv: 12/21/2006 12/22/2006

% Moisture: 21 decanted: (Y/N) N Date Extracted: 12/26/2006

Concentrated Extract Volume: 500 (uL) Date Analyzed: 01/03/2007

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
83-32-9	Acenaphthene	410	U
51-28-5	2,4-Dinitrophenol	990	U
100-02-7	4-Nitrophenol	990	U
132-64-9	Dibenzofuran	410	U
121-14-2	2,4-Dinitrotoluene	410	U
84-66-2	Diethyl phthalate	410	U
86-73-7	Fluorene	410	U
7005-72-3	4-Chlorophenyl phenyl ether	410	U
100-01-6	4-Nitroaniline	990	U
534-52-1	4,6-Dinitro-2-methylphenol	990	U
86-30-6	N-nitrosodiphenylamine	410	U
101-55-3	4-Bromophenyl phenyl ether	410	U
118-74-1	Hexachlorobenzene	410	U
1912-24-9	Atrazine	820	U
87-86-5	Pentachlorophenol	990	U
85-01-8	Phenanthrene	410	U
120-12-7	Anthracene	410	U
86-74-8	Carbazole	410	U
84-74-2	Di-n-butyl phthalate	23	BJ
206-44-0	Fluoranthene	410	U
129-00-0	Pyrene	410	U
85-68-7	Butyl benzyl phthalate	410	U
91-94-1	3,3'-Dichlorobenzidine	410	U
56-55-3	Benzo(a)anthracene	410	U
218-01-9	Chrysene	410	U
117-81-7	Bis(2-ethylhexyl) phthalate	84	BJ
117-84-0	Di-n-octyl phthalate	410	U
205-99-2	Benzo(b)fluoranthene	410	U
207-08-9	Benzo(k)fluoranthene	410	U
50-32-8	Benzo(a)pyrene	410	U
193-39-5	Indeno(1,2,3-cd)pyrene	410	U
53-70-3	Dibenzo(a,h)anthracene	410	U

BENCHMARK - SOIL - ASP00 (CLP) SEMIVOLATILES
ANALYSIS DATA SHEET

Client No.

MW-3 (8-10)

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F405

Matrix: (soil/water) SOIL Lab Sample ID: A6F40505

Sample wt/vol: 30.70 (g/mL) G Lab File ID: V18850.RR

Level: (low/med) LOW Date Samp/Recv: 12/21/2006 12/22/2006

% Moisture: 21 decanted: (Y/N) N Date Extracted: 12/26/2006

Concentrated Extract Volume: 500 (uL) Date Analyzed: 01/03/2007

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
191-24-2	Benzo(ghi)perylene	410	U

BENCHMARK - SOIL - ASP00 (CLP) SEMIVOLATILES
TENTATIVELY IDENTIFIED COMPOUNDS

Client No.

MW-3 (8-10)

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F405

Matrix: (soil/water) SOIL Lab Sample ID: A6F40505

Sample wt/vol: 30.70 (g/mL) G Lab File ID: V18850.RR

Level: (low/med) LOW Date Samp/Recv: 12/21/2006 12/22/2006

% Moisture: 21.4 decanted: (Y/N) N Date Extracted: 12/26/2006

Concentrated Extract Volume: 500 (uL) Date Analyzed: 01/03/2007

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.5

Number TICs found: 5

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

	CAS NO.	Compound Name	RT	Est. Conc.	Q
1.		SUSPECTED ALDOL COND PRODUCT	3.33	15000	BJ
2.		UNKNOWN	6.12	460	BJ
3.	111-06-8	BUTYL ESTER HEXADECANOIC ACI	14.16	120	BJN
4.		UNKNOWN	14.76	110	J
5.	123-95-5	BUTYL ESTER OCTADECANOIC ACI	14.80	280	BJN

BENCHMARK - SOIL - ASP00 (CLP) SEMIVOLATILES
ANALYSIS DATA SHEET

Client No.

SS-1,2 COMP

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F405

Matrix: (soil/water) SOIL Lab Sample ID: A6F40501

Sample wt/vol: 30.54 (g/mL) G Lab File ID: V18844.RR

Level: (low/med) LOW Date Samp/Recv: 12/21/2006 12/22/2006

% Moisture: 20 decanted: (Y/N) N Date Extracted: 12/26/2006

Concentrated Extract Volume: 500 (uL) Date Analyzed: 01/03/2007

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-52-7	Benzaldehyde	810	U
108-95-2	Phenol	36	J
111-44-4	Bis(2-chloroethyl) ether	400	U
95-57-8	2-Chlorophenol	400	U
95-48-7	2-Methylphenol	400	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	400	U
98-86-2	Acetophenone	810	U
106-44-5	4-Methylphenol	400	U
621-64-7	N-Nitroso-Di-n-propylamine	400	U
67-72-1	Hexachloroethane	400	U
98-95-3	Nitrobenzene	400	U
78-59-1	Isophorone	400	U
88-75-5	2-Nitrophenol	400	U
105-67-9	2,4-Dimethylphenol	400	U
111-91-1	Bis(2-chloroethoxy) methane	400	U
120-83-2	2,4-Dichlorophenol	400	U
91-20-3	Naphthalene	19	J
106-47-8	4-Chloroaniline	400	U
87-68-3	Hexachlorobutadiene	400	U
105-60-2	Caprolactam	810	U
59-50-7	4-Chloro-3-methylphenol	400	U
91-57-6	2-Methylnaphthalene	16	J
77-47-4	Hexachlorocyclopentadiene	400	U
88-06-2	2,4,6-Trichlorophenol	400	U
95-95-4	2,4,5-Trichlorophenol	980	U
92-52-4	Biphenyl	810	U
91-58-7	2-Chloronaphthalene	400	U
88-74-4	2-Nitroaniline	980	U
131-11-3	Dimethyl phthalate	400	U
606-20-2	2,6-Dinitrotoluene	400	U
208-96-8	Acenaphthylene	19	J
99-09-2	3-Nitroaniline	980	U

BENCHMARK - SOIL - ASP00 (CLP) SEMIVOLATILES
ANALYSIS DATA SHEET

Client No.

SS-1,2 COMP

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F405

Matrix: (soil/water) SOIL Lab Sample ID: A6F40501

Sample wt/vol: 30.54 (g/mL) G Lab File ID: V18844.RR

Level: (low/med) LOW Date Samp/Recv: 12/21/2006 12/22/2006

% Moisture: 20 decanted: (Y/N) N Date Extracted: 12/26/2006

Concentrated Extract Volume: 500 (uL) Date Analyzed: 01/03/2007

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
83-32-9	Acenaphthene	30	J
51-28-5	2,4-Dinitrophenol	980	U
100-02-7	4-Nitrophenol	37	BJ
132-64-9	Dibenzofuran	14	J
121-14-2	2,4-Dinitrotoluene	400	U
84-66-2	Diethyl phthalate	400	U
86-73-7	Fluorene	400	U
7005-72-3	4-Chlorophenyl phenyl ether	400	U
100-01-6	4-Nitroaniline	980	U
534-52-1	4,6-Dinitro-2-methylphenol	980	U
86-30-6	N-nitrosodiphenylamine	400	U
101-55-3	4-Bromophenyl phenyl ether	400	U
118-74-1	Hexachlorobenzene	400	U
1912-24-9	Atrazine	810	U
87-86-5	Pentachlorophenol	130	BJ
85-01-8	Phenanthrene	220	J
120-12-7	Anthracene	53	J
86-74-8	Carbazole	34	J
84-74-2	Di-n-butyl phthalate	34	BJ
206-44-0	Fluoranthene	430	
129-00-0	Pyrene	320	J
85-68-7	Butyl benzyl phthalate	75	J
91-94-1	3,3'-Dichlorobenzidine	400	U
56-55-3	Benzo(a)anthracene	260	J
218-01-9	Chrysene	300	J
117-81-7	Bis(2-ethylhexyl) phthalate	140	BJ
117-84-0	Di-n-octyl phthalate	400	U
205-99-2	Benzo(b)fluoranthene	440	
207-08-9	Benzo(k)fluoranthene	140	J
50-32-8	Benzo(a)pyrene	280	J
193-39-5	Indeno(1,2,3-cd)pyrene	160	J
53-70-3	Dibenzo(a,h)anthracene	49	J

BENCHMARK - SOIL - ASP00 (CLP) SEMIVOLATILES
ANALYSIS DATA SHEET

Client No.

SS-1,2 COMP

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F405

Matrix: (soil/water) SOIL Lab Sample ID: A6F40501

Sample wt/vol: 30.54 (g/mL) G Lab File ID: V18844.RR

Level: (low/med) LOW Date Samp/Recv: 12/21/2006 12/22/2006

% Moisture: 20 decanted: (Y/N) N Date Extracted: 12/26/2006

Concentrated Extract Volume: 500 (uL) Date Analyzed: 01/03/2007

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
191-24-2	Benzo(ghi)perylene	120	J

BENCHMARK - SOIL - ASP00 (CLP) SEMIVOLATILES
TENTATIVELY IDENTIFIED COMPOUNDS

Client No.

SS-1,2 COMP

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F405

Matrix: (soil/water) SOIL Lab Sample ID: A6F40501

Sample wt/vol: 30.54 (g/mL) G Lab File ID: V18844.RR

Level: (low/med) LOW Date Samp/Recv: 12/21/2006 12/22/2006

% Moisture: 20.2 decanted: (Y/N) N Date Extracted: 12/26/2006

Concentrated Extract Volume: 500 (uL) Date Analyzed: 01/03/2007

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.1

Number TICs found: 17

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

	CAS NO.	Compound Name	RT	Est. Conc.	Q
1.		SUSPECTED ALDOL COND PRODUCT	3.33	13000	BJ
2.		UNKNOWN	6.12	410	BJ
3.	65-85-0	BENZOIC ACID	7.69	1300	JN
4.		UNKNOWN PAH DERIVATIVE	13.22	120	J
5.	112-79-8	(E)-9-OCTADECENOIC ACID	14.01	300	JN
6.	123-95-5	BUTYL ESTER OCTADECANOIC ACI	14.80	460	BJN
7.		UNKNOWN HYDROCARBON	15.67	130	J
8.		UNKNOWN HYDROCARBON	16.22	420	J
9.		UNKNOWN STEROL	17.14	1600	J
10.	83-48-7	STIGMASTEROL	17.67	450	JN
11.	83-47-6	.GAMMA.-SITOSTEROL	17.95	1100	JN
12.		UNKNOWN	18.18	240	J
13.		UNKNOWN	18.50	200	J
14.		UNKNOWN STEROL	18.64	360	J
15.		UNKNOWN	19.33	230	J
16.		UNKNOWN	19.46	460	J
17.		UNKNOWN	19.95	440	J

STEELFIELDS - ASP00 8151 - HERBICIDES - S
ANALYSIS DATA SHEET

Client No.

BLIND DUP#1

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F405

Matrix: (soil/water) SOIL Lab Sample ID: A6F40502

Sample wt/vol: 30.06 (g/mL) G Lab File ID: 13A42103.TX0

% Moisture: 22 decanted: (Y/N) N Date Samp/Recv: 12/21/2006 12/22/2006

Extraction: (SepF/Cont/Sonc/Soxh): SONC Date Extracted: 12/26/2006

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 01/05/2007

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
93-76-5	2,4,5-T	22	U
93-72-1	2,4,5-TP (Silvex)	22	U
94-75-7	2,4-D	12	J

STEELFIELDS - ASP00 8151 - HERBICIDES - S
ANALYSIS DATA SHEET

Client No.

MW-1 (6-8)

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F405

Matrix: (soil/water) SOIL Lab Sample ID: A6F40503

Sample wt/vol: 30.71 (g/mL) G Lab File ID: 13A42105.TX0

% Moisture: 20 decanted: (Y/N) N Date Samp/Recv: 12/21/2006 12/22/2006

Extraction: (SepF/Cont/Sonc/Soxh): SONC Date Extracted: 12/26/2006

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 01/05/2007

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
93-76-5	2,4,5-T	21	U
93-72-1	2,4,5-TP (Silvex)	21	U
94-75-7	2,4-D	21	U

STEELFIELDS - ASP00 8151 - HERBICIDES - S
ANALYSIS DATA SHEET

Client No.

MW-2 (2-4)

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F405

Matrix: (soil/water) SOIL Lab Sample ID: A6F40504

Sample wt/vol: 30.75 (g/mL) G Lab File ID: 13A42106.TX0

% Moisture: 20 decanted: (Y/N) N Date Samp/Recv: 12/21/2006 12/22/2006

Extraction: (SepF/Cont/Sonc/Soxh): SONC Date Extracted: 12/26/2006

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 01/05/2007

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
93-76-5	2,4,5-T	21	U
93-72-1	2,4,5-TP (Silvex)	21	U
94-75-7	2,4-D	21	U

STEELFIELDS - ASP00 8151 - HERBICIDES - S
ANALYSIS DATA SHEET

Client No.

MW-3 (8-10)

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F405

Matrix: (soil/water) SOIL Lab Sample ID: A6F40505

Sample wt/vol: 30.78 (g/mL) G Lab File ID: 13A42107.TX0

% Moisture: 21 decanted: (Y/N) N Date Samp/Recv: 12/21/2006 12/22/2006

Extraction: (SepF/Cont/Sonc/Soxh): SONC Date Extracted: 12/26/2006

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 01/05/2007

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
93-76-5	2,4,5-T	21	U
93-72-1	2,4,5-TP (Silvex)	21	U
94-75-7	2,4-D	21	U

STEELFIELDS - ASP00 8151 - HERBICIDES - S
ANALYSIS DATA SHEET

Client No.

SS-1,2 COMP

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: ____ SAS No.: _____ SDG No.: F405

Matrix: (soil/water) SOIL Lab Sample ID: A6F40501

Sample wt/vol: 30.11 (g/mL) G Lab File ID: 13A42100.TX0

% Moisture: 20 decanted: (Y/N) N Date Samp/Recv: 12/21/2006 12/22/2006

Extraction: (SepF/Cont/Sonc/Soxh): SONC Date Extracted: 12/26/2006

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 01/05/2007

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
93-76-5	2,4,5-T	21	U
93-72-1	2,4,5-TP (Silvex)	21	U
94-75-7	2,4-D	16	J

BENCHMARK - SOIL - ASP00 (CLP) PESTICIDES/AROCLORS
ANALYSIS DATA SHEET

45/1220

Client No.

BLIND DUP#1

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F405

Matrix: (soil/water) SOIL Lab Sample ID: A6F40502

Sample wt/vol: 30.70 (g/mL) G Lab File ID: _____

% Moisture: 22 decanted: (Y/N) N Date Samp/Recv: 12/21/2006 12/22/2006

Extraction: (SepF/Cont/Sonc/Soxh): SONC Date Extracted: 12/26/2006

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 01/09/2007

Injection Volume: 1.00 (uL) Dilution Factor: 10.00

GPC Cleanup: (Y/N) Y pH: 7.40 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	21	U
319-85-7	beta-BHC	21	U
319-86-8	delta-BHC	21	U
58-89-9	gamma-BHC (Lindane)	21	U
76-44-8	Heptachlor	21	U
309-00-2	Aldrin	21	U
1024-57-3	Heptachlor epoxide	21	U
959-98-8	Endosulfan I	21	U
60-57-1	Dieldrin	41	U
72-55-9	4,4'-DDE	41	U
72-20-8	Endrin	41	U
33213-65-9	Endosulfan II	41	U
72-54-8	4,4'-DDD	41	U
1031-07-8	Endosulfan Sulfate	41	U
50-29-3	4,4'-DDT	11	JP
72-43-5	Methoxychlor	210	U
53494-70-5	Endrin ketone	41	U
7421-93-4	Endrin aldehyde	41	U
5103-71-9	alpha-Chlordane	21	U
5103-74-2	gamma-Chlordane	21	U
8001-35-2	Toxaphene	2100	U
12674-11-2	Aroclor 1016	410	U
11104-28-2	Aroclor 1221	840	U
11141-16-5	Aroclor 1232	410	U
53469-21-9	Aroclor 1242	410	U
12672-29-6	Aroclor 1248	410	U
11097-69-1	Aroclor 1254	410	U
11096-82-5	Aroclor 1260	410	U

BENCHMARK - SOIL - ASP00 (CLP) PESTICIDES/AROCLORS
ANALYSIS DATA SHEET

Client No.

MW-1 (6-8)

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F405

Matrix: (soil/water) SOIL Lab Sample ID: A6F40503

Sample wt/vol: 30.50 (g/mL) G Lab File ID: _____

% Moisture: 20 decanted: (Y/N) N Date Samp/Recv: 12/21/2006 12/22/2006

Extraction: (SepF/Cont/Sonc/Soxh): SONC Date Extracted: 12/26/2006

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 01/10/2007

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.30 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2.1	U
319-85-7	beta-BHC	2.1	U
319-86-8	delta-BHC	2.1	U
58-89-9	gamma-BHC (Lindane)	2.1	U
76-44-8	Heptachlor	2.1	U
309-00-2	Aldrin	2.1	U
1024-57-3	Heptachlor epoxide	2.1	U
959-98-8	Endosulfan I	2.1	U
60-57-1	Dieldrin	4.1	U
72-55-9	4,4'-DDE	4.1	U
72-20-8	Endrin	4.1	U
33213-65-9	Endosulfan II	4.1	U
72-54-8	4,4'-DDD	4.1	U
1031-07-8	Endosulfan Sulfate	4.1	U
50-29-3	4,4'-DDT	4.1	U
72-43-5	Methoxychlor	21	U
53494-70-5	Endrin ketone	4.1	U
7421-93-4	Endrin aldehyde	4.1	U
5103-71-9	alpha-Chlordane	2.1	U
5103-74-2	gamma-Chlordane	2.1	U
8001-35-2	Toxaphene	210	U
12674-11-2	Aroclor 1016	41	U
11104-28-2	Aroclor 1221	82	U
11141-16-5	Aroclor 1232	41	U
53469-21-9	Aroclor 1242	41	U
12672-29-6	Aroclor 1248	41	U
11097-69-1	Aroclor 1254	41	U
11096-82-5	Aroclor 1260	41	U

BENCHMARK - SOIL - ASP00 (CLP) PESTICIDES/AROCLORS
ANALYSIS DATA SHEET

Client No.

MW-2 (2-4)

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F405__

Matrix: (soil/water) SOIL Lab Sample ID: A6F40504__

Sample wt/vol: 30.40 (g/mL) G Lab File ID: _____

% Moisture: 20 decanted: (Y/N) N Date Samp/Recv: 12/21/2006 12/22/2006

Extraction: (SepF/Cont/Sonc/Soxh): SONC Date Extracted: 12/26/2006

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 01/10/2007

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.40 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2.1	U
319-85-7	beta-BHC	2.1	U
319-86-8	delta-BHC	2.1	U
58-89-9	gamma-BHC (Lindane)	2.1	U
76-44-8	Heptachlor	2.1	U
309-00-2	Aldrin	2.1	U
1024-57-3	Heptachlor epoxide	2.1	U
959-98-8	Endosulfan I	4.1	U
60-57-1	Dieldrin	4.1	U
72-55-9	4,4'-DDE	4.1	U
72-20-8	Endrin	4.1	U
33213-65-9	Endosulfan II	4.1	U
72-54-8	4,4'-DDD	4.1	U
1031-07-8	Endosulfan Sulfate	4.1	U
50-29-3	4,4'-DDT	21	U
72-43-5	Methoxychlor	0.96	JP
53494-70-5	Endrin ketone	4.1	U
7421-93-4	Endrin aldehyde	2.1	U
5103-71-9	alpha-Chlordane	2.1	U
5103-74-2	gamma-Chlordane	210	U
8001-35-2	Toxaphene	41	U
12674-11-2	Aroclor 1016	83	U
11104-28-2	Aroclor 1221	41	U
11141-16-5	Aroclor 1232	41	U
53469-21-9	Aroclor 1242	41	U
12672-29-6	Aroclor 1248	41	U
11097-69-1	Aroclor 1254	41	U
11096-82-5	Aroclor 1260	41	U

BENCHMARK - SOIL - ASP00 (CLP) PESTICIDES/AROCLORS
ANALYSIS DATA SHEET

Client No.

MW-3 (8-10)

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F405

Matrix: (soil/water) SOIL Lab Sample ID: A6F40505

Sample wt/vol: 30.20 (g/mL) G Lab File ID: _____

% Moisture: 21 decanted: (Y/N) N Date Samp/Recv: 12/21/2006 12/22/2006

Extraction: (SepF/Cont/Sonc/Soxh): SONC Date Extracted: 12/26/2006

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 01/10/2007

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.50 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2.1	U
319-85-7	beta-BHC	2.1	U
319-86-8	delta-BHC	2.1	U
58-89-9	gamma-BHC (Lindane)	2.1	U
76-44-8	Heptachlor	2.1	U
309-00-2	Aldrin	2.1	U
1024-57-3	Heptachlor epoxide	2.1	U
959-98-8	Endosulfan I	2.1	U
60-57-1	Dieldrin	4.1	U
72-55-9	4,4'-DDE	4.1	U
72-20-8	Endrin	4.1	U
33213-65-9	Endosulfan II	4.1	U
72-54-8	4,4'-DDD	4.1	U
1031-07-8	Endosulfan Sulfate	4.1	U
50-29-3	4,4'-DDT	4.1	U
72-43-5	Methoxychlor	21	U
53494-70-5	Endrin ketone	0.62	JP
7421-93-4	Endrin aldehyde	4.1	U
5103-71-9	alpha-Chlordane	2.1	U
5103-74-2	gamma-Chlordane	2.1	U
8001-35-2	Toxaphene	210	U
12674-11-2	Aroclor 1016	41	U
11104-28-2	Aroclor 1221	84	U
11141-16-5	Aroclor 1232	41	U
53469-21-9	Aroclor 1242	41	U
12672-29-6	Aroclor 1248	41	U
11097-69-1	Aroclor 1254	41	U
11096-82-5	Aroclor 1260	41	U

BENCHMARK - SOIL - ASP00 (CLP) PESTICIDES/AROCLORS
ANALYSIS DATA SHEET

Client No.

SS-1,2 COMP

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F405

Matrix: (soil/water) SOIL Lab Sample ID: A6F40501

Sample wt/vol: 30.60 (g/mL) G Lab File ID: _____

% Moisture: 20 decanted: (Y/N) N Date Samp/Recv: 12/21/2006 12/22/2006

Extraction: (SepF/Cont/Sonc/Soxh): SONC Date Extracted: 12/26/2006

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 01/09/2007

Injection Volume: 1.00 (uL) Dilution Factor: 2.00

GPC Cleanup: (Y/N) Y pH: 7.10 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	4.2	U
319-85-7	beta-BHC	0.82	J
319-86-8	delta-BHC	4.2	U
58-89-9	gamma-BHC (Lindane)	4.2	U
76-44-8	Heptachlor	4.2	U
309-00-2	Aldrin	4.2	U
1024-57-3	Heptachlor epoxide	4.2	U
959-98-8	Endosulfan I	4.2	U
60-57-1	Dieldrin	8.1	U
72-55-9	4,4'-DDE	8.1	U
72-20-8	Endrin	8.1	U
33213-65-9	Endosulfan II	2.2	JP
72-54-8	4,4'-DDD	8.1	U
1031-07-8	Endosulfan Sulfate	8.1	U
50-29-3	4,4'-DDT	4.3	JP
72-43-5	Methoxychlor	1.8	JP
53494-70-5	Endrin ketone	8.1	U
7421-93-4	Endrin aldehyde	8.1	U
5103-71-9	alpha-Chlordane	4.2	U
5103-74-2	gamma-Chlordane	0.88	JP
8001-35-2	Toxaphene	420	U
12674-11-2	Aroclor 1016	81	U
11104-28-2	Aroclor 1221	160	U
11141-16-5	Aroclor 1232	81	U
53469-21-9	Aroclor 1242	81	U
12672-29-6	Aroclor 1248	81	U
11097-69-1	Aroclor 1254	81	U
11096-82-5	Aroclor 1260	81	U

BUFFALO

Benchmark Environmental & Engineering Science

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.: BLIND DUP#1

Contract: NY04-133

Lab Code: STLBLFO Case No.: _____ SAS No.: _____ SDG NO.: A06-F405

Matrix (soil/water): SOIL Lab Sample ID: AD680289

Level (low/med): LOW Date Received: 12/22/2006

% Solids: 78

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7690			P
7440-36-0	Antimony	9.7		N	P
7440-38-2	Arsenic	15.8		N	P
7440-39-3	Barium	100			P
7440-41-7	Beryllium	0.81	U		P
7440-43-9	Cadmium	0.95			P
7440-70-2	Calcium	13900		*	P
7440-47-3	Chromium	15.8		N	P
7440-48-4	Cobalt	6.7			P
7440-50-8	Copper	68.8		N	P
7439-89-6	Iron	22400			P
7439-92-1	Lead	219			P
7439-95-4	Magnesium	3960			P
7439-96-5	Manganese	819		*	P
7440-02-0	Nickel	20.5			P
7440-09-7	Potassium	911			P
7782-49-2	Selenium	2.3	B		P
7440-22-4	Silver	0.14	B		P
7439-97-6	Mercury	0.174			CV
7440-23-5	Sodium	71.8	B		P
7440-28-0	Thallium	1.1	B		P
7440-62-2	Vanadium	17.7		N	P
7440-66-6	Zinc	167		NE	P

Color Before: BROWN Clarity Before: CLOUDY Texture: COARSE

Color After: YELLOW Clarity After: CLR/FIL Artifacts: _____

Comments: _____

STL BUFFALO

Benchmark Environmental & Engineering Science

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

MW-1 (6-8)

Contract: NY04-133

Lab Code: STLBLFO Case No.: SAS No.: SDG NO.: A06-F405

Matrix (soil/water): SOIL Lab Sample ID: AD680290

Level (low/med): LOW Date Received: 12/22/2006

% Solids: 80

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	13800			P
7440-36-0	Antimony	0.57	U	N	P
7440-38-2	Arsenic	1.9		N	P
7440-39-3	Barium	186			P
7440-41-7	Beryllium	0.83	U		P
7440-43-9	Cadmium	0.25	B		P
7440-70-2	Calcium	84400		*	P
7440-47-3	Chromium	18.8		N	P
7440-48-4	Cobalt	9.0			P
7440-50-8	Copper	13.9		N	P
7439-89-6	Iron	22000			P
7439-92-1	Lead	4.9			P
7439-95-4	Magnesium	9250			P
7439-96-5	Manganese	455		*	P
7440-02-0	Nickel	23.1			P
7440-09-7	Potassium	2080			P
7782-49-2	Selenium	1.3	B		P
7440-22-4	Silver	0.08	U		P
7439-97-6	Mercury	0.030	U		CV
7440-23-5	Sodium	125	B		P
7440-28-0	Thallium	0.93	B		P
7440-62-2	Vanadium	22.2		N	P
7440-66-6	Zinc	51.7		NE	P

Color Before: BROWN Clarity Before: CLOUDY Texture: COARSE

Color After: YELLOW Clarity After: CLR/FIL Artifacts:

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

MW-2 (2-4)

Contract: NY04-133

Lab Code: STLBLFO Case No.: SAS No.: SDG NO.: A06-F405

Matrix (soil/water): SOIL Lab Sample ID: AD680291

Level (low/med): LOW Date Received: 12/22/2006

% Solids: 80

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	23200			P
7440-36-0	Antimony	0.61	U	N	P
7440-38-2	Arsenic	3.1		N	P
7440-39-3	Barium	149			P
7440-41-7	Beryllium	1.1			P
7440-43-9	Cadmium	0.24	B		P
7440-70-2	Calcium	10900		*	P
7440-47-3	Chromium	28.5		N	P
7440-48-4	Cobalt	13.3			P
7440-50-8	Copper	19.8		N	P
7439-89-6	Iron	31300			P
7439-92-1	Lead	9.9			P
7439-95-4	Magnesium	12200			P
7439-96-5	Manganese	341		*	P
7440-02-0	Nickel	34.4			P
7440-09-7	Potassium	2040			P
7782-49-2	Selenium	2.3	B		P
7440-22-4	Silver	0.09	U		P
7439-97-6	Mercury	0.030	U		CV
7440-23-5	Sodium	102	B		P
7440-28-0	Thallium	1.1	B		P
7440-62-2	Vanadium	33.7		N	P
7440-66-6	Zinc	75.1		NE	P

Color Before: BROWN Clarity Before: CLOUDY Texture: COARSE

Color After: YELLOW Clarity After: CLR/FIL Artifacts:

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

MW-3 (8-10)

Contract: NY04-133

Lab Code: STLBLFO Case No.: SAS No.: SDG NO.: A06-F405

Matrix (soil/water): SOIL Lab Sample ID: AD680292

Level (low/med): LOW Date Received: 12/22/2006

% Solids: 79

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	14400			P
7440-36-0	Antimony	0.60	U	N	P
7440-38-2	Arsenic	3.5		N	P
7440-39-3	Barium	125			P
7440-41-7	Beryllium	0.88	U		P
7440-43-9	Cadmium	0.20	B		P
7440-70-2	Calcium	36900		*	P
7440-47-3	Chromium	20.5		N	P
7440-48-4	Cobalt	9.6			P
7440-50-8	Copper	19.3		N	P
7439-89-6	Iron	24500			P
7439-92-1	Lead	7.2			P
7439-95-4	Magnesium	11100			P
7439-96-5	Manganese	406		*	P
7440-02-0	Nickel	25.3			P
7440-09-7	Potassium	2250			P
7782-49-2	Selenium	1.5	B		P
7440-22-4	Silver	0.09	U		P
7439-97-6	Mercury	0.040	U		CV
7440-23-5	Sodium	126	B		P
7440-28-0	Thallium	1.1	B		P
7440-62-2	Vanadium	25.4		N	P
7440-66-6	Zinc	61.5		NE	P

Color Before: BROWN Clarity Before: CLOUDY Texture: COARSE

Color After: YELLOW Clarity After: CLR/FIL Artifacts:

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

SS-1,2 COMP

Contract: NY04-133

Lab Code: STLBLFO Case No.: SAS No.: SDG NO.: A06-F405

Matrix (soil/water): SOIL Lab Sample ID: AD680285

Level (low/med): LOW Date Received: 12/22/2006

% Solids: 80

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	18000			P
7440-36-0	Antimony	1.2	B	N	P
7440-38-2	Arsenic	7.6		N	P
7440-39-3	Barium	135			P
7440-41-7	Beryllium	0.98			P
7440-43-9	Cadmium	0.96			P
7440-70-2	Calcium	17500		*	P
7440-47-3	Chromium	45.5		N	P
7440-48-4	Cobalt	13.0			P
7440-50-8	Copper	33.5		N	P
7439-89-6	Iron	26900			P
7439-92-1	Lead	87.6			P
7439-95-4	Magnesium	8540			P
7439-96-5	Manganese	478		*	P
7440-02-0	Nickel	27.4			P
7440-09-7	Potassium	1900			P
7782-49-2	Selenium	2.0	B		P
7440-22-4	Silver	0.09	U		P
7439-97-6	Mercury	0.143			CV
7440-23-5	Sodium	64.0	B		P
7440-28-0	Thallium	1.5	B		P
7440-62-2	Vanadium	33.1		N	P
7440-66-6	Zinc	134		NE	P

Color Before: BROWN Clarity Before: CLOUDY Texture: COARSE

Color After: YELLOW Clarity After: CLR/FIL Artifacts:

Comments:

Wet Chemistry Analysis

Client Sample No.: BLIND DUP#1

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F405

Matrix (soil/water): SOIL Lab Sample ID: A6F40502

% Solids: 0.0 Date Samp/Recv: 12/21/2006 12/22/2006

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Leachable pH	S.U.	7.35				9045	12/23/2006

Comments:

Wet Chemistry Analysis

Client Sample No.: MW-1 (6-8)

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F405

Matrix (soil/water): SOIL Lab Sample ID: A6F40503

% Solids: 0.0 Date Samp/Recv: 12/21/2006 12/22/2006

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Leachable pH	S.U.	7.28				9045	12/23/2006

Comments:

57/1220

Wet Chemistry Analysis

Client Sample No.: MW-2 (2-4)

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F405

Matrix (soil/water): SOIL Lab Sample ID: A6F40504

% Solids: 0.0 Date Samp/Recv: 12/21/2006 12/22/2006

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Leachable pH	S.U.	7.38				9045	12/23/2006

Comments:

Wet Chemistry Analysis

Client Sample No.: MW-3 (8-10)

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F405

Matrix (soil/water): SOIL Lab Sample ID: A6F40505

% Solids: 0.0 Date Samp/Recv: 12/21/2006 12/22/2006

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Leachable pH	S.U.	7.47				9045	12/23/2006

Comments:

Wet Chemistry Analysis

Client Sample No.: SS-1,2 COMP

Lab Name: STL Buffalo Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: F405

Matrix (soil/water): SOIL Lab Sample ID: A6F40501

% Solids: 0.0 Date Samp/Recv: 12/21/2006 12/22/2006

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Leachable pH	S.U.	7.10				9045	12/23/2006

Comments:

Date: 01/24/2007
Time: 14:14:35

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EPA ASP 2000 - VOLATILES

Rept: AN0326

Client ID		BLIND DUP		MW-1		MW-2		MW-3	
Job No	Lab ID	A07-0157	A7015702	A07-0157	A7015701	A07-0157	A7015703	A07-0157	A7015704
Sample Date		01/05/2007		01/05/2007		01/05/2007		01/05/2007	

Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Chloromethane	UG/L	ND	10	ND	10	ND	10	ND	10
Bromomethane	UG/L	ND	10	ND	10	ND	10	ND	10
Vinyl chloride	UG/L	ND	10	ND	10	ND	10	ND	10
Chloroethane	UG/L	ND	10	ND	10	ND	10	ND	10
Methylene chloride	UG/L	ND	10	ND	10	ND	10	ND	10
Acetone	UG/L	ND	10	ND	10	ND	10	ND	10
Carbon Disulfide	UG/L	ND	10	ND	10	ND	10	ND	10
1,1-Dichloroethene	UG/L	ND	10	ND	10	ND	10	ND	10
1,1-Dichloroethane	UG/L	ND	10	ND	10	ND	10	ND	10
Chloroform	UG/L	ND	10	ND	10	ND	10	ND	10
1,2-Dichloroethane	UG/L	ND	10	ND	10	ND	10	ND	10
2-Butanone	UG/L	ND	10	ND	10	ND	10	ND	10
1,1,1-Trichloroethane	UG/L	ND	10	ND	10	ND	10	ND	10
Carbon Tetrachloride	UG/L	ND	10	ND	10	ND	10	ND	10
Bromodichloromethane	UG/L	ND	10	ND	10	ND	10	ND	10
1,2-Dichloropropane	UG/L	ND	10	ND	10	ND	10	ND	10
cis-1,3-Dichloropropene	UG/L	ND	10	ND	10	ND	10	ND	10
Trichloroethene	UG/L	ND	10	ND	10	ND	10	ND	10
Dibromochloromethane	UG/L	ND	10	ND	10	ND	10	ND	10
1,1,2-Trichloroethane	UG/L	ND	10	ND	10	ND	10	ND	10
Benzene	UG/L	ND	10	ND	10	ND	10	ND	10
trans-1,3-Dichloropropene	UG/L	ND	10	ND	10	ND	10	ND	10
Bromoform	UG/L	ND	10	ND	10	ND	10	ND	10
4-Methyl-2-pentanone	UG/L	ND	10	ND	10	ND	10	ND	10
2-Hexanone	UG/L	ND	10	ND	10	ND	10	ND	10
Tetrachloroethene	UG/L	ND	10	1 J	10	ND	10	ND	10
Toluene	UG/L	ND	10	ND	10	ND	10	ND	10
1,1,2,2-Tetrachloroethane	UG/L	ND	10	ND	10	ND	10	ND	10
Chlorobenzene	UG/L	ND	10	ND	10	ND	10	ND	10
Ethylbenzene	UG/L	ND	10	ND	10	ND	10	ND	10
Styrene	UG/L	ND	10	ND	10	ND	10	ND	10
Total Xylenes	UG/L	ND	10	ND	10	ND	10	ND	10
Dichlorodifluoromethane	UG/L	ND	10	ND	10	ND	10	ND	10
Trichlorofluoromethane	UG/L	ND	10	ND	10	ND	10	ND	10
1,1,2-Trichloro-1,2,2-trifluor	UG/L	ND	10	ND	10	ND	10	ND	10
trans-1,2-Dichloroethene	UG/L	ND	10	ND	10	ND	10	ND	10
Methyl-t-Butyl Ether (MTBE)	UG/L	ND	10	ND	10	ND	10	ND	10
cis-1,2-Dichloroethene	UG/L	ND	10	ND	10	ND	10	ND	10
Cyclohexane	UG/L	ND	10	ND	10	ND	10	ND	10
Methylcyclohexane	UG/L	ND	10	ND	10	ND	10	ND	10
1,2-Dibromoethane	UG/L	ND	10	ND	10	ND	10	ND	10
Isopropylbenzene	UG/L	ND	10	ND	10	ND	10	ND	10
1,3-Dichlorobenzene	UG/L	ND	10	ND	10	ND	10	ND	10

NA = Not Applicable ND = Not Detected

Client ID Job No Sample Date	Lab ID	BLIND DUP A07-0157 01/05/2007	A7015702	MW-1 A07-0157 01/05/2007	A7015701	MW-2 A07-0157 01/05/2007	A7015703	MW-3 A07-0157 01/05/2007	A7015704
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
1,4-Dichlorobenzene	UG/L	ND	10	ND	10	ND	10	ND	10
1,2-Dichlorobenzene	UG/L	ND	10	ND	10	ND	10	ND	10
1,2-Dibromo-3-chloropropane	UG/L	ND	10	ND	10	ND	10	ND	10
1,2,4-Trichlorobenzene	UG/L	ND	10	ND	10	ND	10	ND	10
Methyl acetate	UG/L	ND	10	ND	10	ND	10	ND	10
IS/SURROGATE(S)									
Bromochloromethane	%	181	50-200	181	50-200	195	50-200	195	50-200
1,4-Difluorobenzene	%	175	50-200	176	50-200	194	50-200	193	50-200
Chlorobenzene-D5	%	176	50-200	177	50-200	191	50-200	192	50-200
p-Bromofluorobenzene	%	98	86-115	98	86-115	97	86-115	98	86-115
1,2-Dichloroethane-D4	%	102	76-114	102	76-114	102	76-114	100	76-114
Toluene-D8	%	98	88-110	97	88-110	101	88-110	100	88-110

NA = Not Applicable ND = Not Detected

Date: 01/24/2007
Time: 14:14:35

Benchmark
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ASP 2000 - SEMIVOLATILES

Rept: AN0326

Client ID		BLIND DUP		BLIND DUP		MW-1		MW-1	
Job No	Lab ID	A07-0157	A7015702	A07-0157	A7015702RE	A07-0157	A7015701	A07-0157	A7015701RE
Sample Date		01/05/2007		01/05/2007		01/05/2007		01/05/2007	

Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Benzaldehyde	UG/L	ND	10	ND	11	ND	10	ND	10
Phenol	UG/L	ND	10	ND	11	ND	10	ND	10
Bis(2-chloroethyl) ether	UG/L	ND	10	ND	11	ND	10	ND	10
2-Chlorophenol	UG/L	ND	10	ND	11	ND	10	ND	10
2-Methylphenol	UG/L	ND	10	ND	11	ND	10	ND	10
2,2'-Oxybis(1-Chloropropane)	UG/L	ND	10	ND	11	ND	10	ND	10
Acetophenone	UG/L	ND	10	ND	11	ND	10	ND	10
4-Methylphenol	UG/L	ND	10	ND	11	ND	10	ND	10
N-Nitroso-Di-n-propylamine	UG/L	ND	10	ND	11	ND	10	ND	10
Hexachloroethane	UG/L	ND	10	ND	11	ND	10	ND	10
Nitrobenzene	UG/L	ND	10	ND	11	ND	10	ND	10
Isophorone	UG/L	ND	10	ND	11	ND	10	ND	10
2-Nitrophenol	UG/L	ND	10	ND	11	ND	10	ND	10
2,4-Dimethylphenol	UG/L	ND	10	ND	11	ND	10	ND	10
Bis(2-chloroethoxy) methane	UG/L	ND	10	ND	11	ND	10	ND	10
2,4-Dichlorophenol	UG/L	ND	10	ND	11	ND	10	ND	10
Naphthalene	UG/L	ND	10	ND	11	ND	10	ND	10
4-Chloroaniline	UG/L	ND	10	ND	11	ND	10	ND	10
Hexachlorobutadiene	UG/L	ND	10	ND	11	ND	10	ND	10
Caprolactam	UG/L	ND	10	ND	11	ND	10	ND	10
4-Chloro-3-methylphenol	UG/L	ND	10	ND	11	ND	10	ND	10
2-Methylnaphthalene	UG/L	ND	10	ND	11	ND	10	ND	10
Hexachlorocyclopentadiene	UG/L	ND	10	ND	11	ND	10	ND	10
2,4,6-Trichlorophenol	UG/L	ND	10	ND	11	ND	10	ND	10
2,4,5-Trichlorophenol	UG/L	ND	25	ND	26	ND	24	ND	26
Biphenyl	UG/L	ND	10	ND	11	ND	10	ND	10
2-Chloronaphthalene	UG/L	ND	10	ND	11	ND	10	ND	10
2-Nitroaniline	UG/L	ND	25	ND	26	ND	24	ND	26
Dimethyl phthalate	UG/L	ND	10	ND	11	ND	10	ND	10
2,6-Dinitrotoluene	UG/L	ND	10	ND	11	ND	10	ND	10
Acenaphthylene	UG/L	ND	10	ND	11	ND	10	ND	10
3-Nitroaniline	UG/L	ND	25	ND	26	ND	24	ND	26
Acenaphthene	UG/L	ND	10	ND	11	ND	10	ND	10
2,4-Dinitrophenol	UG/L	ND	25	ND	26	ND	24	ND	26
4-Nitrophenol	UG/L	ND	25	ND	26	ND	24	ND	26
Dibenzofuran	UG/L	ND	10	ND	11	ND	10	ND	10
2,4-Dinitrotoluene	UG/L	ND	10	ND	11	ND	10	ND	10
Diethyl phthalate	UG/L	ND	10	ND	11	ND	10	ND	10
Fluorene	UG/L	ND	10	ND	11	ND	10	ND	10
4-Chlorophenyl phenyl ether	UG/L	ND	10	ND	11	ND	10	ND	10
4-Nitroaniline	UG/L	ND	25	ND	26	ND	24	ND	26
4,6-Dinitro-2-methylphenol	UG/L	ND	25	ND	26	ND	24	ND	26
N-nitrosodiphenylamine	UG/L	ND	10	ND	11	ND	10	ND	10

NA = Not Applicable ND = Not Detected

STL Buffalo

Client ID		BLIND DUP		BLIND DUP		MW-1		MW-1	
Job No / Lab ID		A07-0157	A7015702	A07-0157	A7015702RE	A07-0157	A7015701	A07-0157	A7015701RE
Sample Date		01/05/2007		01/05/2007		01/05/2007		01/05/2007	
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
4-Bromophenyl phenyl ether	UG/L	ND	10	ND	11	ND	10	ND	10
Hexachlorobenzene	UG/L	ND	10	ND	11	ND	10	ND	10
Atrazine	UG/L	ND	10	ND	11	ND	10	ND	10
Pentachlorophenol	UG/L	ND	25	ND	26	ND	24	ND	26
Phenanthrene	UG/L	ND	10	ND	11	ND	10	ND	10
Anthracene	UG/L	ND	10	ND	11	ND	10	ND	10
Carbazole	UG/L	ND	10	ND	11	ND	10	ND	10
Di-n-butyl phthalate	UG/L	ND	10	ND	11	ND	10	ND	10
Fluoranthene	UG/L	ND	10	ND	11	ND	10	ND	10
Pyrene	UG/L	ND	10	ND	11	ND	10	ND	10
Butyl benzyl phthalate	UG/L	ND	10	ND	11	ND	10	ND	10
3,3'-Dichlorobenzidine	UG/L	ND	10	ND	11	ND	10	ND	10
Benzo(a)anthracene	UG/L	ND	10	ND	11	ND	10	ND	10
Chrysene	UG/L	ND	10	ND	11	ND	10	ND	10
Bis(2-ethylhexyl) phthalate	UG/L	4 BJ	10	2 BJ	11	9 BJ	10	1 BJ	10
Di-n-octyl phthalate	UG/L	ND	10	ND	11	ND	10	ND	10
Benzo(b)fluoranthene	UG/L	ND	10	ND	11	ND	10	ND	10
Benzo(k)fluoranthene	UG/L	ND	10	ND	11	ND	10	ND	10
Benzo(a)pyrene	UG/L	ND	10	ND	11	ND	10	ND	10
Indeno(1,2,3-cd)pyrene	UG/L	ND	10	ND	11	ND	10	ND	10
Dibenzo(a,h)anthracene	UG/L	ND	10	ND	11	ND	10	ND	10
Benzo(ghi)perylene	UG/L	ND	10	ND	11	ND	10	ND	10
IS/SURROGATE(S)									
1,4-Dichlorobenzene-D4	%	82	50-200	89	50-200	83	50-200	93	50-200
Naphthalene-D8	%	84	50-200	93	50-200	81	50-200	97	50-200
Acenaphthene-D10	%	84	50-200	93	50-200	81	50-200	100	50-200
Phenanthrene-D10	%	87	50-200	94	50-200	84	50-200	99	50-200
Chrysene-D12	%	92	50-200	87	50-200	91	50-200	94	50-200
Perylene-D12	%	90	50-200	97	50-200	88	50-200	104	50-200
Nitrobenzene-D5	%	66	35-114	63	35-114	63	35-114	60	35-114
2-Fluorobiphenyl	%	69	43-116	64	43-116	65	43-116	62	43-116
p-Terphenyl-d14	%	45	33-141	41	33-141	52	33-141	50	33-141
Phenol-D5	%	67	10-110	61	10-110	60	10-110	57	10-110
2-Fluorophenol	%	60	21-110	60	21-110	54	21-110	58	21-110
2,4,6-Tribromophenol	%	81	10-123	74	10-123	77	10-123	70	10-123
2-Chlorophenol-d4	%	65	33-110	64	33-110	59	33-110	62	33-110
1,2-Dichlorobenzene-d4	%	62	16-110	61	16-110	56	16-110	55	16-110

NA = Not Applicable ND = Not Detected

Date: 01/24/2007
Time: 14:14:35

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ASP 2000 - SEMIVOLATILES

Rept: AN0326

Client ID		MW-2		MW-2		MW-3		MW-3	
Job No	Lab ID	A07-0157	A7015703	A07-0157	A7015703RE	A07-0157	A7015704	A07-0157	A7015704RE
Sample Date		01/05/2007		01/05/2007		01/05/2007		01/05/2007	

Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Benzaldehyde	UG/L	ND	10	ND	10	ND	10	ND	11
Phenol	UG/L	ND	10	ND	10	ND	10	ND	11
Bis(2-chloroethyl) ether	UG/L	ND	10	ND	10	ND	10	ND	11
2-Chlorophenol	UG/L	ND	10	ND	10	ND	10	ND	11
2-Methylphenol	UG/L	ND	10	ND	10	ND	10	ND	11
2,2'-Oxybis(1-Chloropropane)	UG/L	ND	10	ND	10	ND	10	ND	11
Acetophenone	UG/L	ND	10	ND	10	ND	10	ND	11
4-Methylphenol	UG/L	ND	10	ND	10	ND	10	ND	11
N-Nitroso-Di-n-propylamine	UG/L	ND	10	ND	10	ND	10	ND	11
Hexachloroethane	UG/L	ND	10	ND	10	ND	10	ND	11
Nitrobenzene	UG/L	ND	10	ND	10	ND	10	ND	11
Isophorone	UG/L	ND	10	ND	10	ND	10	ND	11
2-Nitrophenol	UG/L	ND	10	ND	10	ND	10	ND	11
2,4-Dimethylphenol	UG/L	ND	10	ND	10	ND	10	ND	11
Bis(2-chloroethoxy) methane	UG/L	ND	10	ND	10	ND	10	ND	11
2,4-Dichlorophenol	UG/L	ND	10	ND	10	ND	10	ND	11
Naphthalene	UG/L	ND	10	ND	10	ND	10	ND	11
4-Chloroaniline	UG/L	ND	10	ND	10	ND	10	ND	11
Hexachlorobutadiene	UG/L	ND	10	ND	10	ND	10	ND	11
Caprolactam	UG/L	ND	10	ND	10	ND	10	ND	11
4-Chloro-3-methylphenol	UG/L	ND	10	ND	10	ND	10	ND	11
2-Methylnaphthalene	UG/L	ND	10	ND	10	ND	10	ND	11
Hexachlorocyclopentadiene	UG/L	ND	10	ND	10	ND	10	ND	11
2,4,6-Trichlorophenol	UG/L	ND	10	ND	10	ND	10	ND	11
2,4,5-Trichlorophenol	UG/L	ND	24	ND	26	ND	25	ND	28
Biphenyl	UG/L	ND	10	ND	10	ND	10	ND	11
2-Chloronaphthalene	UG/L	ND	10	ND	10	ND	10	ND	11
2-Nitroaniline	UG/L	ND	24	ND	26	ND	25	ND	28
Dimethyl phthalate	UG/L	ND	10	ND	10	ND	10	ND	11
2,6-Dinitrotoluene	UG/L	ND	10	ND	10	ND	10	ND	11
Acenaphthylene	UG/L	ND	10	ND	10	ND	10	ND	11
3-Nitroaniline	UG/L	ND	24	ND	26	ND	25	ND	28
Acenaphthene	UG/L	ND	10	ND	10	ND	10	ND	11
2,4-Dinitrophenol	UG/L	ND	24	ND	26	ND	25	ND	28
4-Nitrophenol	UG/L	ND	24	ND	26	ND	25	ND	28
Dibenzofuran	UG/L	ND	10	ND	10	ND	10	ND	11
2,4-Dinitrotoluene	UG/L	ND	10	ND	10	ND	10	ND	11
Diethyl phthalate	UG/L	ND	10	ND	10	ND	10	ND	11
Fluorene	UG/L	ND	10	ND	10	ND	10	ND	11
4-Chlorophenyl phenyl ether	UG/L	ND	10	ND	10	ND	10	ND	11
4-Nitroaniline	UG/L	ND	24	ND	26	ND	25	ND	28
4,6-Dinitro-2-methylphenol	UG/L	ND	24	ND	26	ND	25	ND	28
N-nitrosodiphenylamine	UG/L	ND	10	ND	10	ND	10	ND	11

NA = Not Applicable ND = Not Detected

STL Buffalo

Client ID		MW-2		MW-2		MW-3		MW-3	
Job No	Lab ID	A07-0157	A7015703	A07-0157	A7015703RE	A07-0157	A7015704	A07-0157	A7015704RE
Sample Date		01/05/2007		01/05/2007		01/05/2007		01/05/2007	
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
4-Bromophenyl phenyl ether	UG/L	ND	10	ND	10	ND	10	ND	11
Hexachlorobenzene	UG/L	ND	10	ND	10	ND	10	ND	11
Atrazine	UG/L	ND	10	ND	10	ND	10	ND	11
Pentachlorophenol	UG/L	ND	24	ND	26	ND	25	ND	28
Phenanthrene	UG/L	ND	10	ND	10	ND	10	ND	11
Anthracene	UG/L	ND	10	ND	10	ND	10	ND	11
Carbazole	UG/L	ND	10	ND	10	ND	10	ND	11
Di-n-butyl phthalate	UG/L	ND	10	ND	10	ND	10	ND	11
Fluoranthene	UG/L	ND	10	ND	10	ND	10	ND	11
Pyrene	UG/L	ND	10	ND	10	ND	10	ND	11
Butyl benzyl phthalate	UG/L	ND	10	ND	10	ND	10	ND	11
3,3'-Dichlorobenzidine	UG/L	ND	10	ND	10	ND	10	ND	11
Benzo(a)anthracene	UG/L	ND	10	ND	10	ND	10	ND	11
Chrysene	UG/L	ND	10	ND	10	ND	10	ND	11
Bis(2-ethylhexyl) phthalate	UG/L	4 BJ	10	0.5 BJ	10	6 BJ	10	5 BJ	11
Di-n-octyl phthalate	UG/L	ND	10	ND	10	ND	10	ND	11
Benzo(b)fluoranthene	UG/L	ND	10	ND	10	ND	10	ND	11
Benzo(k)fluoranthene	UG/L	ND	10	ND	10	ND	10	ND	11
Benzo(a)pyrene	UG/L	ND	10	ND	10	ND	10	ND	11
Indeno(1,2,3-cd)pyrene	UG/L	ND	10	ND	10	ND	10	ND	11
Dibenzo(a,h)anthracene	UG/L	ND	10	ND	10	ND	10	ND	11
Benzo(ghi)perylene	UG/L	ND	10	ND	10	ND	10	ND	11
IS/SURROGATE(S)									
1,4-Dichlorobenzene-D4	%	86	50-200	88	50-200	86	50-200	80	50-200
Naphthalene-D8	%	88	50-200	94	50-200	87	50-200	86	50-200
Acenaphthene-D10	%	91	50-200	92	50-200	87	50-200	82	50-200
Phenanthrene-D10	%	88	50-200	91	50-200	87	50-200	85	50-200
Chrysene-D12	%	96	50-200	86	50-200	96	50-200	79	50-200
Perylene-D12	%	108	50-200	95	50-200	104	50-200	87	50-200
Nitrobenzene-D5	%	71	35-114	54	35-114	66	35-114	57	35-114
2-Fluorobiphenyl	%	74	43-116	59	43-116	68	43-116	63	43-116
p-Terphenyl-d14	%	30 *	33-141	24 *	33-141	35	33-141	46	33-141
Phenol-D5	%	69	10-110	54	10-110	64	10-110	58	10-110
2-Fluorophenol	%	60	21-110	51	21-110	58	21-110	57	21-110
2,4,6-Tribromophenol	%	84	10-123	61	10-123	84	10-123	67	10-123
2-Chlorophenol-d4	%	68	33-110	56	33-110	64	33-110	59	33-110
1,2-Dichlorobenzene-d4	%	66	16-110	52	16-110	59	16-110	57	16-110

NA = Not Applicable ND = Not Detected

Date: 01/24/2007
Time: 14:14:35

Benchmark
2250 Factory Outlet Blvd.
ASP00 METHOD 8082 - POLYCHLORINATED BIPHENYLS

Rept: AN0326

Client ID Job No Sample Date	Lab ID	BLIND DUP A07-0157 01/05/2007	A7015702	MW-1 A07-0157 01/05/2007	A7015701	MW-2 A07-0157 01/05/2007	A7015703	MW-3 A07-0157 01/05/2007	A7015704
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Aroclor 1016	UG/L	ND	0.50	ND	0.50	ND	0.50	ND	0.50
Aroclor 1221	UG/L	ND	0.50	ND	0.50	ND	0.50	ND	0.50
Aroclor 1232	UG/L	ND	0.60	ND	0.50	ND	0.50	ND	0.50
Aroclor 1242	UG/L	ND	0.51	ND	0.50	ND	0.50	ND	0.50
Aroclor 1248	UG/L	ND	0.50	ND	0.50	ND	0.50	ND	0.50
Aroclor 1254	UG/L	ND	0.50	ND	0.50	ND	0.50	ND	0.50
Aroclor 1260	UG/L	ND	0.50	ND	0.50	ND	0.50	ND	0.50
SURROGATE(S)									
Tetrachloro-m-xylene	%	92	36-132	92	36-132	94	36-132	91	36-132
Decachlorobiphenyl	%	110	28-132	112	28-132	84	28-132	94	28-132

NA = Not Applicable ND = Not Detected

STL Buffalo

Date: 01/24/2007
Time: 14:15:55

Benchmark
2250 Factory Outlet Blvd.
WET CHEMISTRY ANALYSIS

Rept: AN0326

Client ID		BLIND DUP		MW-1		MW-2		MW-3	
Job No	Lab ID	A07-0157	A7015702	A07-0157	A7015701	A07-0157	A7015703	A07-0157	A7015704
Sample Date		01/05/2007		01/05/2007		01/05/2007		01/05/2007	

Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Hexavalent Chromium - Total	MG/L	ND	0.010	ND	0.010	ND	0.010	ND	0.010

Client ID		MW-4							
Job No	Lab ID	A07-0157	A7015705						
Sample Date		01/05/2007							

Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Hexavalent Chromium - Total	MG/L	ND	0.020	NA		NA		NA	

NA = Not Applicable ND = Not Detected

STL Buffalo

Date: 01/24/2007
Time: 11:21:12

Benchmark
2250 Factory Outlet Blvd.
BENCHMARK ASP00 - AQUEOUS TAL METALS

Rept: AN0326

Client ID		BLIND DUP		MW-1		MW-2		MW-3	
Job No	Lab ID	A07-0157	A7015702	A07-0157	A7015701	A07-0157	A7015703	A07-0157	A7015704
Sample Date		01/05/2007		01/05/2007		01/05/2007		01/05/2007	

Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Mercury - Total	UG/L	ND	0.120	ND	0.120	ND	0.120	ND	0.120
Aluminum - Soluble	UG/L	492 N*	33.0	1080 N*	33.0	945 N*	33.0	151 BN*	33.0
Antimony - Total	UG/L	ND	6.4	ND	6.4	ND	6.4	ND	6.4
Arsenic - Total	UG/L	ND	4.8	ND	4.8	ND	4.8	ND	4.8
Barium - Total	UG/L	29.7 B	0.24	34.3 B	0.24	36.8 B	0.24	26.4 B	0.24
Beryllium - Total	UG/L	ND	0.16	0.42 B	0.16	ND	0.16	0.32 B	0.16
Cadmium - Total	UG/L	ND	0.39	ND	0.39	ND	0.39	ND	0.39
Calcium - Total	UG/L	355000	31.0	359000	31.0	148000	31.0	397000	31.0
Chromium - Total	UG/L	2.2 B	0.74	2.9 B	0.74	1.4 B	0.74	ND	0.74
Cobalt - Total	UG/L	2.1 B	0.85	2.4 B	0.85	1.1 B	0.85	ND	0.85
Copper - Total	UG/L	2.2 B	1.3	2.9 B	1.3	1.9 B	1.3	ND	1.3
Iron - Total	UG/L	891 N*	16.0	1710 N*	16.0	712 N*	16.0	315 N*	16.0
Lead - Total	UG/L	ND N*	1.9	ND N*	1.9	ND N*	1.9	ND N*	1.9
Magnesium - Total	UG/L	259000	27.0	261000	27.0	209000	27.0	244000	27.0
Manganese - Total	UG/L	446 N	0.22	455 N	0.22	48.2 N	0.22	136 N	0.22
Nickel - Total	UG/L	2.4 B	1.4	3.4 B	1.4	2.9 B	1.4	3.0 B	1.4
Potassium - Total	UG/L	3490 B	34.0	3650 B	34.0	2940 B	34.0	3470 B	34.0
Selenium - Total	UG/L	ND	6.8	ND	6.8	ND	6.8	ND	6.8
Silver - Total	UG/L	ND	1.3	ND	1.3	ND	1.3	ND	1.3
Sodium - Total	UG/L	53600	270	53900	270	40600	270	61000	270
Thallium - Total	UG/L	ND	8.2	ND	8.2	ND	8.2	ND	8.2
Vanadium - Total	UG/L	ND	0.71	1.4 B	0.71	1.6 B	0.71	ND	0.71
Zinc - Total	UG/L	7.1 B	0.92	10.7 B	0.92	7.7 B	0.92	4.0 B	0.92

NA = Not Applicable ND = Not Detected

STL Buffalo

Client ID		MW-4							
Job No	Lab ID	A07-0157	A7015705						
Sample Date		01/05/2007							
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Mercury - Total	UG/L	ND	0.120	NA		NA		NA	
Aluminum - Soluble	UG/L	18000 M*	33.0	NA		NA		NA	
Antimony - Total	UG/L	ND	6.4	NA		NA		NA	
Arsenic - Total	UG/L	7.4 B	4.8	NA		NA		NA	
Barium - Total	UG/L	111 B	0.24	NA		NA		NA	
Beryllium - Total	UG/L	0.71 B	0.16	NA		NA		NA	
Cadmium - Total	UG/L	0.65 B	0.39	NA		NA		NA	
Calcium - Total	UG/L	245000	31.0	NA		NA		NA	
Chromium - Total	UG/L	75.9	0.74	NA		NA		NA	
Cobalt - Total	UG/L	13.0 B	0.85	NA		NA		NA	
Copper - Total	UG/L	34.6	1.3	NA		NA		NA	
Iron - Total	UG/L	24700 M*	16.0	NA		NA		NA	
Lead - Total	UG/L	29.5 M*	1.9	NA		NA		NA	
Magnesium - Total	UG/L	124000	27.0	NA		NA		NA	
Manganese - Total	UG/L	1340 M	0.22	NA		NA		NA	
Nickel - Total	UG/L	30.7 B	1.4	NA		NA		NA	
Potassium - Total	UG/L	6340	34.0	NA		NA		NA	
Selenium - Total	UG/L	ND	6.8	NA		NA		NA	
Silver - Total	UG/L	ND	1.3	NA		NA		NA	
Sodium - Total	UG/L	77500	270	NA		NA		NA	
Thallium - Total	UG/L	ND	8.2	NA		NA		NA	
Vanadium - Total	UG/L	35.9 B	0.71	NA		NA		NA	
Zinc - Total	UG/L	170	0.92	NA		NA		NA	

NA = Not Applicable ND = Not Detected

Date: 01/24/2007
Time: 11:21:12

Benchmark
2250 Factory Outlet Blvd.
BENCH-SOLUBLE TAL METALS (23) -W

Rept: AN0326

Client ID		BLIND DUP		MW-1		MW-2		MW-3	
Job No	Lab ID	A07-0157	A7015702	A07-0157	A7015701	A07-0157	A7015703	A07-0157	A7015704
Sample Date		01/05/2007		01/05/2007		01/05/2007		01/05/2007	

Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Mercury - Soluble	UG/L	ND	0.120	ND	0.120	ND	0.120	ND	0.120
Aluminum - Soluble	UG/L	ND	33.0	ND	33.0	ND	33.0	ND	33.0
Antimony - Soluble	UG/L	ND	6.4	ND	6.4	ND	6.4	ND	6.4
Arsenic - Soluble	UG/L	ND	4.8	ND	4.8	ND	4.8	ND	4.8
Barium - Soluble	UG/L	27.2 B	0.24	26.4 B	0.24	33.1 B	0.24	27.1 B	0.24
Beryllium - Soluble	UG/L	0.26 B	0.16	0.30 B	0.16	ND	0.16	0.27 B	0.16
Cadmium - Soluble	UG/L	ND	0.39	ND	0.39	ND	0.39	ND	0.39
Calcium - Soluble	UG/L	385000	31.0	369000	31.0	153000	31.0	412000	31.0
Chromium - Soluble	UG/L	ND	0.74	ND	0.74	ND	0.74	ND	0.74
Cobalt - Soluble	UG/L	1.4 B	0.85	1.8 B	0.85	ND	0.85	1.2 B	0.85
Copper - Soluble	UG/L	ND	1.3	1.3 B	1.3	ND	1.3	ND	1.3
Iron - Soluble	UG/L	ND	16.0	ND	16.0	ND	16.0	ND	16.0
Lead - Soluble	UG/L	ND	1.9	ND	1.9	ND	1.9	ND	1.9
Magnesium - Soluble	UG/L	269000	27.0	262000	27.0	215000	27.0	254000	27.0
Manganese - Soluble	UG/L	330	0.22	410	0.22	49.1	0.22	144	0.22
Nickel - Soluble	UG/L	2.5 B	1.4	1.7 B	1.4	2.1 B	1.4	2.3 B	1.4
Potassium - Soluble	UG/L	4540 BE	34.0	3980 BE	34.0	3580 BE	34.0	3950 BE	34.0
Selenium - Soluble	UG/L	8.2 B	6.8	ND	6.8	ND	6.8	ND	6.8
Silver - Soluble	UG/L	ND	1.3	ND	1.3	ND	1.3	ND	1.3
Sodium - Soluble	UG/L	56500	270	54900	270	44900	270	64200	270
Thallium - Soluble	UG/L	ND	8.2	ND	8.2	ND	8.2	ND	8.2
Vanadium - Soluble	UG/L	ND	0.71	ND	0.71	ND	0.71	ND	0.71
Zinc - Soluble	UG/L	4.7 B	0.92	5.4 B	0.92	2.8 B	0.92	2.8 B	0.92

NA = Not Applicable ND = Not Detected

SIL Buffalo

Date: 01/24/2007
Time: 11:21:12

Benchmark
2250 Factory Outlet Blvd.
BENCH-SOLUBLE TAL METALS (23) -W

Rept: AN0326

Client ID		MW-4							
Job No	Lab ID	A07-0157	A7015705						
Sample Date		01/05/2007							
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Aluminum - Soluble	UG/L	ND	33.0	NA		NA		NA	
Antimony - Soluble	UG/L	ND	6.4	NA		NA		NA	
Arsenic - Soluble	UG/L	7.2 B	4.8	NA		NA		NA	
Barium - Soluble	UG/L	13.4 B	0.24	NA		NA		NA	
Beryllium - Soluble	UG/L	ND	0.16	NA		NA		NA	
Cadmium - Soluble	UG/L	ND	0.39	NA		NA		NA	
Calcium - Soluble	UG/L	105000	31.0	NA		NA		NA	
Chromium - Soluble	UG/L	0.95 B	0.74	NA		NA		NA	
Cobalt - Soluble	UG/L	1.0 B	0.85	NA		NA		NA	
Copper - Soluble	UG/L	4.4 B	1.3	NA		NA		NA	
Iron - Soluble	UG/L	36.7 B	16.0	NA		NA		NA	
Lead - Soluble	UG/L	ND	1.9	NA		NA		NA	
Magnesium - Soluble	UG/L	75900	27.0	NA		NA		NA	
Manganese - Soluble	UG/L	171	0.22	NA		NA		NA	
Nickel - Soluble	UG/L	5.6 B	1.4	NA		NA		NA	
Potassium - Soluble	UG/L	1990 BE	34.0	NA		NA		NA	
Selenium - Soluble	UG/L	ND	6.8	NA		NA		NA	
Silver - Soluble	UG/L	ND	1.3	NA		NA		NA	
Sodium - Soluble	UG/L	94300	270	NA		NA		NA	
Thallium - Soluble	UG/L	ND	8.2	NA		NA		NA	
Vanadium - Soluble	UG/L	3.4 B	0.71	NA		NA		NA	
Zinc - Soluble	UG/L	16.1 B	0.92	NA		NA		NA	
Mercury - Soluble	UG/L	ND	0.120	NA		NA		NA	

NA = Not Applicable ND = Not Detected

SIL Buffalo

ANALYTICAL REPORT

Job#: A07-0431

STL Project#: NY4A9217
Site Name: Benchmark
Task: 2250 Factory Outlet Blvd.

Mr. Mike Lesakowski
Benchmark Environmental
726 Exchange St., Ste 624
Buffalo, NY 14210

STL Buffalo

Brian J. Fischer
Project Manager

01/24/2007

STL Buffalo
Current Certifications

As of 9/28/2006

STATE	Program	Cert # / Lab ID
AFCEE	AFCEE	
Arkansas	SDWA, CWA, RCRA, SOIL	88-0686
California	NELAP CWA, RCRA	01169CA
Connecticut	SDWA, CWA, RCRA, SOIL	PH-0568
Florida	NELAP CWA, RCRA	E87672
Georgia	SDWA,NELAP CWA, RCRA	956
Illinois	NELAP SDWA, CWA, RCRA	200003
Iowa	SW/CS	374
Kansas	NELAP SDWA, CWA, RCRA	E-10187
Kentucky	SDWA	90029
Kentucky UST	UST	30
Louisiana	NELAP CWA, RCRA	2031
Maine	SDWA, CWA	NY044
Maryland	SDWA	294
Massachusetts	SDWA, CWA	M-NY044
Michigan	SDWA	9937
Minnesota	SDWA,CWA, RCRA	036-999-337
New Hampshire	NELAP SDWA, CWA	233701
New Jersey	SDWA, CWA, RCRA, CLP	NY455
New York	NELAP, AIR, SDWA, CWA, RCRA,ASP	10026
Oklahoma	CWA, RCRA	9421
Pennsylvania	NELAP CWA,RCRA	68-00281
South Carolina	RCRA	91013
Tennessee	SDWA	02970
USDA	FOREIGN SOIL PERMIT	S-41579
USDOE	Department of Energy	DOECAP-STB
Virginia	SDWA	278
Washington	CWA,RCRA	C1677
West Virginia	CWA,RCRA	252
Wisconsin	CWA, RCRA	998310390

Sample Data Summary Package

SAMPLE SUMMARY

LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	SAMPLED DATE	SAMPLED TIME	RECEIVED DATE	RECEIVED TIME
A7043109	BLIND DUP	SOIL	01/12/2007		01/12/2007	17:50
A7043110	TP-11	SOIL	01/12/2007		01/12/2007	17:50
A7043111	TP-11 0.5%	SOIL	01/12/2007		01/12/2007	17:50
A7043112	TP-11 2%	SOIL	01/12/2007		01/12/2007	17:50
A7043113	TP-11 5%	SOIL	01/12/2007		01/12/2007	17:50
A7043113MS	TP-11 5%	SOIL	01/12/2007		01/12/2007	17:50
A7043113SD	TP-11 5%	SOIL	01/12/2007		01/12/2007	17:50
A7043101	TP-2	SOIL	01/12/2007		01/12/2007	17:50
A7043102	TP-2 0.5%	SOIL	01/12/2007		01/12/2007	17:50
A7043103	TP-2 2%	SOIL	01/12/2007		01/12/2007	17:50
A7043104	TP-2 5%	SOIL	01/12/2007		01/12/2007	17:50
A7043105	TP-6	SOIL	01/12/2007		01/12/2007	17:50
A7043106	TP-6 0.5%	SOIL	01/12/2007		01/12/2007	17:50
A7043107	TP-6 2%	SOIL	01/12/2007		01/12/2007	17:50
A7043108	TP-6 5%	SOIL	01/12/2007		01/12/2007	17:50

METHODS SUMMARY

Job#: A07-0431

STL Project#: NY4A9217
Site Name: Benchmark

PARAMETER	ANALYTICAL METHOD
Chromium - Total	SW8463 6010
Toxicity Characteristic Leaching Procedure	SW8463 1311

References:

SW8463 "Test Methods for Evaluating Solid Waste Physical/Chemical Methods (SW846), Third Edition, 9/86; Update I, 7/92; Update IIA, 8/93; Update II, 9/94; Update IIB, 1/95; Update III, 12/96.

NON-CONFORMANCE SUMMARY

Job#: A07-0431

STL Project#: NY4A9217
Site Name: Benchmark

General Comments

The enclosed data may or may not have been reported utilizing data qualifiers (Q) as defined on the Data Comment Page.

Soil, sediment and sludge sample results are reported on "dry weight" basis unless otherwise noted in this data package.

According to 40CFR Part 136.3, pH, Chlorine Residual, Dissolved Oxygen, Sulfite, and Temperature analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. pH-Field), they were not analyzed immediately, but as soon as possible after laboratory receipt.

Sample dilutions were performed as indicated on the attached Dilution Log. The rationale for dilution is specified by the 3-digit code and definition.

Sample Receipt Comments

A07-0431
Sample Cooler(s) were received at the following temperature(s); AMBIENT °C
All samples were received in good condition.

Metals Data

The recovery of sample TP-6 5% Matrix Spike exhibited a result below the quality control limits for Chromium. The recovery of sample TP-6 5% Matrix Spike Duplicate exhibited a result above the quality control limits for Chromium. The sample result is more than four times greater than the spike added. The LFB was acceptable.

The recoveries of sample TP-11 5% Matrix Spike and Matrix Spike Duplicate exhibited results below the quality control limits for Chromium. The sample result is more than four times greater than the spike added. The LFB was acceptable.

Wet Chemistry Data

No deviations from protocol were encountered during the analytical procedures.

****

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION
AND
ANALYTICAL REQUEST SUMMARY

LAB NAME: SEVERN TRENT LABORATORIES, INC.

CUSTOMER SAMPLE ID	LABORATORY SAMPLE ID	ANALYTICAL REQUIREMENTS						
		VOA GC/MS	BNA GC/MS	VOA GC	PEST PCB	METALS	TCLP HERB	WATER QUALITY
BLIND DUP	A7043109	-	-	-	-	SW8463	-	SW8463
TP-11	A7043110	-	-	-	-	SW8463	-	SW8463
TP-11 0.5%	A7043111	-	-	-	-	SW8463	-	SW8463
TP-11 2%	A7043112	-	-	-	-	SW8463	-	SW8463
TP-11 5%	A7043113	-	-	-	-	SW8463	-	SW8463
TP-2	A7043101	-	-	-	-	SW8463	-	SW8463
TP-2 0.5%	A7043102	-	-	-	-	SW8463	-	SW8463
TP-2 2%	A7043103	-	-	-	-	SW8463	-	SW8463
TP-2 5%	A7043104	-	-	-	-	SW8463	-	SW8463
TP-6	A7043105	-	-	-	-	SW8463	-	SW8463
TP-6 0.5%	A7043106	-	-	-	-	SW8463	-	SW8463
TP-6 2%	A7043107	-	-	-	-	SW8463	-	SW8463
TP-6 5%	A7043108	-	-	-	-	SW8463	-	SW8463

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYTICAL SUMMARY
INORGANIC ANALYSIS

LAB NAME: SEVERN TRENT LABORATORIES, INC.

SAMPLE IDENTIFICATION	MATRIX	METALS REQUESTED	DATE RECEIVED AT LAB	DATE DIGESTED	DATE ANALYZED
BLIND DUP	SOIL	TC T CR	01/12/2007	01/16/2007	01/17/2007
TP-11	SOIL	TC T CR	01/12/2007	01/16/2007	01/17/2007
TP-11 0.5%	SOIL	TC T CR	01/12/2007	01/16/2007	01/17/2007
TP-11 2%	SOIL	TC T CR	01/12/2007	01/16/2007	01/17/2007
TP-11 5%	SOIL	TC T CR	01/12/2007	01/16/2007	01/17/2007
TP-2	SOIL	TC T CR	01/12/2007	01/22/2007	01/22/2007
TP-2 0.5%	SOIL	TC T CR	01/12/2007	01/22/2007	01/22/2007
TP-2 2%	SOIL	TC T CR	01/12/2007	01/22/2007	01/22/2007
TP-2 5%	SOIL	TC T CR	01/12/2007	01/22/2007	01/22/2007
TP-6	SOIL	TC T CR	01/12/2007	01/22/2007	01/22/2007
TP-6 0.5%	SOIL	TC T CR	01/12/2007	01/22/2007	01/22/2007
TP-6 2%	SOIL	TC T CR	01/12/2007	01/16/2007	01/17/2007
TP-6 5%	SOIL	TC T CR	01/12/2007	01/16/2007	01/17/2007

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
INORGANIC ANALYSIS

LAB NAME: SEVERN TRENT LABORATORIES, INC.

LABORATORY SAMPLE CODE	MATRIX	ANALYTICAL PROTOCOL	DIGESTION PROCEDURE	MATRIX MODIFIER	DIL/CONC FACTOR
BLIND DUP	SOIL	SW8463	SW8463	AS REQUIRED	AS REQUIRED
TP-11	SOIL	SW8463	SW8463	AS REQUIRED	AS REQUIRED
TP-11 0.5%	SOIL	SW8463	SW8463	AS REQUIRED	AS REQUIRED
TP-11 2%	SOIL	SW8463	SW8463	AS REQUIRED	AS REQUIRED
TP-11 5%	SOIL	SW8463	SW8463	AS REQUIRED	AS REQUIRED
TP-2	SOIL	SW8463	SW8463	AS REQUIRED	AS REQUIRED
TP-2 0.5%	SOIL	SW8463	SW8463	AS REQUIRED	AS REQUIRED
TP-2 2%	SOIL	SW8463	SW8463	AS REQUIRED	AS REQUIRED
TP-2 5%	SOIL	SW8463	SW8463	AS REQUIRED	AS REQUIRED
TP-6	SOIL	SW8463	SW8463	AS REQUIRED	AS REQUIRED
TP-6 0.5%	SOIL	SW8463	SW8463	AS REQUIRED	AS REQUIRED
TP-6 2%	SOIL	SW8463	SW8463	AS REQUIRED	AS REQUIRED
TP-6 5%	SOIL	SW8463	SW8463	AS REQUIRED	AS REQUIRED

SEVERN TRENT STL

DATA QUALIFIER PAGE

These definitions are provided in the event the data in this report requires the use of one or more of the qualifiers. Not all qualifiers defined below are necessarily used in the accompanying data package.

ORGANIC DATA QUALIFIERS

ND or U	Indicates compound was analyzed for, but not detected.
J	Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
C	This flag applies to pesticide results where the identification has been confirmed by GC/MS.
B	This flag is used when the analyte is found in the associated blank, as well as in the sample.
E	This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
D	This flag identifies all compounds identified in an analysis at the secondary dilution factor.
N	Indicates presumptive evidence of a compound. This flag is used only for tentatively identified compounds, where the identification is based on the Mass Spectral library search. It is applied to all TIC results.
P	This flag is used for CLP methodology only. For Pesticide/Aroclor target analytes, when a difference for detected concentrations between the two GC columns is greater than 25%, the lower of the two values is reported on the data page and flagged with a "P".
A	This flag indicates that a TIC is a suspected aldol-condensation product.
1	Indicates coelution.
*	Indicates analysis is not within the quality control limits.

INORGANIC DATA QUALIFIERS

ND or U	Indicates element was analyzed for, but not detected. Report with the detection limit value.
J or B	Indicates a value greater than or equal to the instrument detection limit, but less than the quantitation limit.
N	Indicates spike sample recovery is not within the quality control limits.
S	Indicates value determined by the Method of Standard Addition.
E	Indicates a value estimated or not reported due to the presence of interferences.
H	Indicates analytical holding time exceedance. The value obtained should be considered an estimate.
*	Indicates the spike or duplicate analysis is not within the quality control limits.
+	Indicates the correlation coefficient for the Method of Standard Addition is less than 0.995.

STL BUFFALO

Benchmark Environmental & Engineering Science

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: Benchmark Environmental & Engine **SDG No.:** A07-0431 **Method Type:**

Sample ID: A7043109 **Client ID:** BLIND DUP

Matrix: WATER **Date Received:** 1/12/2007 **Date Collected:** 1/12/2007 **Level:** LOW

% Solids: **Sample Wt/Vol:** 50.0 **Final Vol:** 50.0

Prep Batch ID: A7B00686 **Prep Date:** 1/16/2007

Analyte	Concentration	Units	C	Qual	RL	RL	Dil	Analytical Date	Analytical Time	Instrument	Run	M
Chromium	6460	ug/L			4.0	4.0	1	1/17/2007	15:03	SUPERTRACE	1011707	P

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: Benchmark Environmental & Engine **SDG No.:** A07-0431 **Method Type:**

Sample ID: A7043110 **Client ID:** TP-11

Matrix: WATER **Date Received:** 1/12/2007 **Date Collected:** 1/12/2007 **Level:** LOW

% Solids: **Sample Wt/Vol:** 50.0 **Final Vol:** 50.0

Prep Batch ID: A7B00650 **Prep Date:** 1/16/2007

Analyte	Concentration	Units	C	Qual	RL	RL	Dil	Analytical Date	Time	Instrument	Run	M
Chromium	**11300**	**ug/L**			**4.0**	4.0	**1**	**1/17/2007**	**18:16**	SUPERTRACE	1011707	P

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: Benchmark Environmental & Engine **SDG No.:** A07-0431 **Method Type:**

Sample ID: A7043111 **Client ID:** TP-11 0.5%

Matrix: WATER **Date Received:** 1/12/2007 **Date Collected:** 1/12/2007 **Level:** LOW

% Solids: **Sample Wt/Vol:** 50.0 **Final Vol:** 50.0

Prep Batch ID: A7B00686 **Prep Date:** 1/16/2007

Analyte	Concentration	Units	C	Qual	RL	RL	Dil	Analytical Date	Analytical Time	Instrument	Run	M
Chromium	**4030**	**ug/L**			**4.0**	4.0	**1**	**1/17/2007**	**15:08**	SUPERTRACE	1011707	P

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: Benchmark Environmental & Engine **SDG No.:** A07-0431 **Method Type:**

Sample ID: A7043112 **Client ID:** TP-11 2%

Matrix: WATER **Date Received:** 1/12/2007 **Date Collected:** 1/12/2007 **Level:** LOW

% Solids: **Sample Wt/Vol:** 50.0 **Final Vol:** 50.0

Prep Batch ID: A7B00686 **Prep Date:** 1/16/2007

Analyte	Concentration	Units	C	Qual	RL	RL	Dil	Analytical Date	Analytical Time	Instrument	Run	M
Chromium	**3900**	**ug/L**			**4.0**	4.0	**1**	**1/17/2007**	**15:27**	SUPERTRACE	1011707	P

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: Benchmark Environmental & Engine **SDG No.:** A07-0431 **Method Type:**

Sample ID: A7043113 **Client ID:** TP-11 5%

Matrix: WATER **Date Received:** 1/12/2007 **Date Collected:** 1/12/2007 **Level:** LOW

% Solids: **Sample Wt/Vol:** 50.0 **Final Vol:** 50.0

Prep Batch ID: A7B00686 **Prep Date:** 1/16/2007

Analyte	Concentration	Units	C	Qual	RL	RL	Dil	Analytical Date	Analytical Time	Instrument	Run	M
Chromium	**4200**	**ug/L**			**4.0**	4.0	**1**	**1/17/2007**	**15:32**	SUPERTRACE	1011707	P

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: Benchmark Environmental & Engine **SDG No.:** A07-0431 **Method Type:**

Sample ID: A7043101 **Client ID:** TP-2

Matrix: WATER **Date Received:** 1/12/2007 **Date Collected:** 1/12/2007 **Level:** LOW

% Solids: **Sample Wt/Vol:** 50.0 **Final Vol:** 50.0

Prep Batch ID: A7B00898 **Prep Date:** 1/22/2007

Analyte	Concentration	Units	C	Qual	RL	RL	Dil	Analytical Date	Analytical Time	Instrument	Run	M
Chromium	**7850**	**ug/L**			**4.0**	4.0	**1**	**1/22/2007**	**17:19**	SUPERTRACE2	B012207	P

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: Benchmark Environmental & Engine **SDG No.:** A07-0431 **Method Type:**

Sample ID: A7043102 **Client ID:** TP-2 0.5%

Matrix: WATER **Date Received:** 1/12/2007 **Date Collected:** 1/12/2007 **Level:** LOW

% Solids: **Sample Wt/Vol:** 50.0 **Final Vol:** 50.0

Prep Batch ID: A7B00898 **Prep Date:** 1/22/2007

Analyte	Concentration	Units	C	Qual	RL	RL	Dil	Analytical Date	Time	Instrument	Run	M
Chromium	**7520**	**ug/L**			**4.0**	4.0	1	**1/22/2007**	**17:55**	SUPERTRACE2	B012207	P

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: Benchmark Environmental & Engine **SDG No.:** A07-0431 **Method Type:**

Sample ID: A7043103 **Client ID:** TP-2 2%

Matrix: WATER **Date Received:** 1/12/2007 **Date Collected:** 1/12/2007 **Level:** LOW

% Solids: **Sample Wt/Vol:** 50.0 **Final Vol:** 50.0

Prep Batch ID: A7B00898 **Prep Date:** 1/22/2007

Analyte	Concentration	Units	C	Qual	RL	RL	Dil	Analytical Date	Analytical Time	Instrument	Run	M
Chromium	**7450**	**ug/L**			**4.0**	4.0	**1**	**1/22/2007**	**18:00**	SUPERTRACE2	B012207	P

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: Benchmark Environmental & Engine **SDG No.:** A07-0431 **Method Type:**

Sample ID: A7043104 **Client ID:** TP-2 5%

Matrix: WATER **Date Received:** 1/12/2007 **Date Collected:** 1/12/2007 **Level:** LOW

% Solids: **Sample Wt/Vol:** 50.0 **Final Vol:** 50.0

Prep Batch ID: A7B00898 **Prep Date:** 1/22/2007

Analyte	Concentration	Units	C	Qual	RL	RL	Dil	Analytical Date	Analytical Time	Instrument	Run	M
Chromium	**5690**	**ug/L**			**4.0**	4.0	**1**	**1/22/2007**	**18:05**	SUPERTRACE2	B012207	P

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: Benchmark Environmental & Engine **SDG No.:** A07-0431 **Method Type:**

Sample ID: A7043105 **Client ID:** TP-6

Matrix: WATER **Date Received:** 1/12/2007 **Date Collected:** 1/12/2007 **Level:** LOW

% Solids: **Sample Wt/Vol:** 50.0 **Final Vol:** 50.0

Prep Batch ID: A7B00898 **Prep Date:** 1/22/2007

Analyte	Concentration	Units	C	Qual	RL	RL	Dil	Analytical Date	Analytical Time	Instrument	Run	M
Chromium	**6440**	**ug/L**			**4.0**	4.0	**1**	**1/22/2007**	**18:10**	SUPERTRACE2	B012207	P

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: Benchmark Environmental & Engine **SDG No.:** A07-0431 **Method Type:**

Sample ID: A7043106 **Client ID:** TP-6 0.5%

Matrix: WATER **Date Received:** 1/12/2007 **Date Collected:** 1/12/2007 **Level:** LOW

% Solids: **Sample Wt/Vol:** 50.0 **Final Vol:** 50.0

Prep Batch ID: A7B00898 **Prep Date:** 1/22/2007

Analyte	Concentration	Units	C	Qual	RL	RL	Dil	Analytical Date	Analytical Time	Instrument	Run	M
Chromium	**6790**	**ug/L**			**4.0**	4.0	**1**	**1/22/2007**	**18:15**	SUPERTRACE2	B012207	P

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: Benchmark Environmental & Engine **SDG No.:** A07-0431 **Method Type:**

Sample ID: A7043107 **Client ID:** TP-6 2%

Matrix: WATER **Date Received:** 1/12/2007 **Date Collected:** 1/12/2007 **Level:** LOW

% Solids: **Sample Wt/Vol:** 50.0 **Final Vol:** 50.0

Prep Batch ID: A7B00650 **Prep Date:** 1/16/2007

Analyte	Concentration	Units	C	Qual	RL	RL	Dil	Analytical Date	Analytical Time	Instrument	Run	M
Chromium	**9750**	**ug/L**			**4.0**	4.0	**1**	**1/17/2007**	**17:46**	SUPERTRACE	1011707	P

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: Benchmark Environmental & Engine **SDG No.:** A07-0431 **Method Type:**

Sample ID: A7043108 **Client ID:** TP-6 5%

Matrix: WATER **Date Received:** 1/12/2007 **Date Collected:** 1/12/2007 **Level:** LOW

% Solids: **Sample Wt/Vol:** 50.0 **Final Vol:** 50.0

Prep Batch ID: A7B00650 **Prep Date:** 1/16/2007

Analyte	Concentration	Units	C	Qual	RL	RL	Dil	Analytical Date	Time	Instrument	Run	M
Chromium	**12700**	**ug/L**			**4.0**	4.0	**1**	**1/17/2007**	**17:51**	SUPERTRACE	1011707	P

Comments:

ANALYTICAL REPORT

Job#: A07-0961

STL Project#: NY4A9217
Site Name: Benchmark
Task: 2250 Factory Outlet Blvd.

Mr. Mike Lesakowski
Benchmark Environmental
726 Exchange St., Ste 624
Buffalo, NY 14210

STL Buffalo

Brian J. Fischer
Project Manager

02/09/2007

STL Buffalo
Current Certifications

As of 9/28/2006

STATE	Program	Cert # / Lab ID
AFCEE	AFCEE	
Arkansas	SDWA, CWA, RCRA, SOIL	88-0686
California	NELAP CWA, RCRA	01169CA
Connecticut	SDWA, CWA, RCRA, SOIL	PH-0568
Florida	NELAP CWA, RCRA	E87672
Georgia	SDWA,NELAP CWA, RCRA	956
Illinois	NELAP SDWA, CWA, RCRA	200003
Iowa	SW/CS	374
Kansas	NELAP SDWA, CWA, RCRA	E-10187
Kentucky	SDWA	90029
Kentucky UST	UST	30
Louisiana	NELAP CWA, RCRA	2031
Maine	SDWA, CWA	NY044
Maryland	SDWA	294
Massachusetts	SDWA, CWA	M-NY044
Michigan	SDWA	9937
Minnesota	SDWA,CWA, RCRA	036-999-337
New Hampshire	NELAP SDWA, CWA	233701
New Jersey	SDWA, CWA, RCRA, CLP	NY455
New York	NELAP, AIR, SDWA, CWA, RCRA,ASP	10026
Oklahoma	CWA, RCRA	9421
Pennsylvania	NELAP CWA,RCRA	68-00281
South Carolina	RCRA	91013
Tennessee	SDWA	02970
USDA	FOREIGN SOIL PERMIT	S-41579
USDOE	Department of Energy	DOECAP-STB
Virginia	SDWA	278
Washington	CWA,RCRA	C1677
West Virginia	CWA,RCRA	252
Wisconsin	CWA, RCRA	998310390

Sample Data Summary Package

SAMPLE SUMMARY

LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	SAMPLED DATE	SAMPLED TIME	RECEIVED DATE	RECEIVED TIME
A7096111	BLIND DUPE	SOIL	01/30/2007		01/30/2007	15:30
A7096101	TP-2 (2)	SOIL	01/30/2007		01/30/2007	15:30
A7096101MS	TP-2 (2)	SOIL	01/30/2007		01/30/2007	15:30
A7096101SD	TP-2 (2)	SOIL	01/30/2007		01/30/2007	15:30
A7096102	TP-2 10% PC	SOIL	01/30/2007		01/30/2007	15:30
A7096103	TP-2 15% LIME	SOIL	01/30/2007		01/30/2007	15:30
A7096104	TP-2 2% FESO4	SOIL	01/30/2007		01/30/2007	15:30
A7096105	TP-2 5% FESO4	SOIL	01/30/2007		01/30/2007	15:30
A7096106	TP-6 (2)	SOIL	01/30/2007		01/30/2007	15:30
A7096107	TP-6 10% PC	SOIL	01/30/2007		01/30/2007	15:30
A7096108	TP-6 15% LIME	SOIL	01/30/2007		01/30/2007	15:30
A7096109	TP-6 2% FESO4	SOIL	01/30/2007		01/30/2007	15:30
A7096110	TP-6 5% FESO4	SOIL	01/30/2007		01/30/2007	15:30

METHODS SUMMARY

Job#: A07-0961

STL Project#: NY4A9217
Site Name: Benchmark

PARAMETER	ANALYTICAL METHOD
Chromium - Total	SW8463 6010
Toxicity Characteristic Leaching Procedure	SW8463 1311

References:

SW8463 "Test Methods for Evaluating Solid Waste Physical/Chemical Methods (SW846), Third Edition, 9/86; Update I, 7/92; Update IIA, 8/93; Update II, 9/94; Update IIB, 1/95; Update III, 12/96.

NON-CONFORMANCE SUMMARY

Job#: A07-0961

STL Project#: NY4A9217
Site Name: Benchmark

General Comments

The enclosed data may or may not have been reported utilizing data qualifiers (Q) as defined on the Data Comment Page.

Soil, sediment and sludge sample results are reported on "dry weight" basis unless otherwise noted in this data package.

According to 40CFR Part 136.3, pH, Chlorine Residual, Dissolved Oxygen, Sulfite, and Temperature analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. pH-Field), they were not analyzed immediately, but as soon as possible after laboratory receipt.

Sample dilutions were performed as indicated on the attached Dilution Log. The rationale for dilution is specified by the 3-digit code and definition.

Sample Receipt Comments

A07-0961
Sample Cooler(s) were received at the following temperature(s); 17.2 °C
Samples were received at a temperature of 17.2°C. As the samples were collected the same day, it was not possible for the samples to cool to 4°C prior to receipt. There is no impact on the data.

Metals Data

The recovery of sample TP-2 (2) Matrix Spike Duplicate exhibited a result above the quality control limits for Chromium. The recoveries of sample TP-6 10% PC Matrix Spike and Matrix Spike Duplicate exhibited results below the quality control limits for Chromium. The samples results are more than four times greater than the spike added. The LFB's were acceptable.

The recovery of sample TP-2 (2) Post Spike exhibited a result below the quality control limits for Chromium. However, the Serial Dilution of this sample was compliant. Therefore, no corrective action was necessary.

Wet Chemistry Data

No deviations from protocol were encountered during the analytical procedures.

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NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION
AND
ANALYTICAL REQUEST SUMMARY

LAB NAME: SEVERN TRENT LABORATORIES, INC.

CUSTOMER SAMPLE ID	LABORATORY SAMPLE ID	ANALYTICAL REQUIREMENTS						
		VOA GC/MS	BNA GC/MS	VOA GC	PEST PCB	METALS	TCLP HERB	WATER QUALITY
BLIND DUPE	A7096111	-	-	-	-	SW8463	-	SW8463
TP-2 (2)	A7096101	-	-	-	-	SW8463	-	SW8463
TP-2 10% PC	A7096102	-	-	-	-	SW8463	-	SW8463
TP-2 15% LIME	A7096103	-	-	-	-	SW8463	-	SW8463
TP-2 2% FESO4	A7096104	-	-	-	-	SW8463	-	SW8463
TP-2 5% FESO4	A7096105	-	-	-	-	SW8463	-	SW8463
TP-6 (2)	A7096106	-	-	-	-	SW8463	-	SW8463
TP-6 10% PC	A7096107	-	-	-	-	SW8463	-	SW8463
TP-6 15% LIME	A7096108	-	-	-	-	SW8463	-	SW8463
TP-6 2% FESO4	A7096109	-	-	-	-	SW8463	-	SW8463
TP-6 5% FESO4	A7096110	-	-	-	-	SW8463	-	SW8463

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYTICAL SUMMARY
INORGANIC ANALYSIS

LAB NAME: SEVERN TRENT LABORATORIES, INC.

SAMPLE IDENTIFICATION	MATRIX	METALS REQUESTED	DATE RECEIVED AT LAB	DATE DIGESTED	DATE ANALYZED
BLIND DUPE	SOIL	TC T CR	01/30/2007	02/02/2007	02/02/2007
TP-2 (2)	SOIL	TC T CR	01/30/2007	02/01/2007	02/01/2007
TP-2 10% PC	SOIL	TC T CR	01/30/2007	02/01/2007	02/01/2007
TP-2 15% LIME	SOIL	TC T CR	01/30/2007	02/01/2007	02/01/2007
TP-2 2% FESO4	SOIL	TC T CR	01/30/2007	02/01/2007	02/01/2007
TP-2 5% FESO4	SOIL	TC T CR	01/30/2007	02/01/2007	02/01/2007
TP-6 (2)	SOIL	TC T CR	01/30/2007	02/01/2007	02/01/2007
TP-6 10% PC	SOIL	TC T CR	01/30/2007	02/02/2007	02/02/2007
TP-6 15% LIME	SOIL	TC T CR	01/30/2007	02/02/2007	02/02/2007
TP-6 2% FESO4	SOIL	TC T CR	01/30/2007	02/02/2007	02/02/2007
TP-6 5% FESO4	SOIL	TC T CR	01/30/2007	02/02/2007	02/02/2007

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
INORGANIC ANALYSIS

LAB NAME: SEVERN TRENT LABORATORIES, INC.

LABORATORY SAMPLE CODE	MATRIX	ANALYTICAL PROTOCOL	DIGESTION PROCEDURE	MATRIX MODIFIER	DIL/CONC FACTOR
BLIND DUPE	SOIL	SW8463	SW8463	AS REQUIRED	AS REQUIRED
TP-2 (2)	SOIL	SW8463	SW8463	AS REQUIRED	AS REQUIRED
TP-2 10% PC	SOIL	SW8463	SW8463	AS REQUIRED	AS REQUIRED
TP-2 15% LIME	SOIL	SW8463	SW8463	AS REQUIRED	AS REQUIRED
TP-2 2% FESO4	SOIL	SW8463	SW8463	AS REQUIRED	AS REQUIRED
TP-2 5% FESO4	SOIL	SW8463	SW8463	AS REQUIRED	AS REQUIRED
TP-6 (2)	SOIL	SW8463	SW8463	AS REQUIRED	AS REQUIRED
TP-6 10% PC	SOIL	SW8463	SW8463	AS REQUIRED	AS REQUIRED
TP-6 15% LIME	SOIL	SW8463	SW8463	AS REQUIRED	AS REQUIRED
TP-6 2% FESO4	SOIL	SW8463	SW8463	AS REQUIRED	AS REQUIRED
TP-6 5% FESO4	SOIL	SW8463	SW8463	AS REQUIRED	AS REQUIRED

SEVERN TRENT STL

DATA QUALIFIER PAGE

These definitions are provided in the event the data in this report requires the use of one or more of the qualifiers. Not all qualifiers defined below are necessarily used in the accompanying data package.

ORGANIC DATA QUALIFIERS

ND or U	Indicates compound was analyzed for, but not detected.
J	Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
C	This flag applies to pesticide results where the identification has been confirmed by GC/MS.
B	This flag is used when the analyte is found in the associated blank, as well as in the sample.
E	This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
D	This flag identifies all compounds identified in an analysis at the secondary dilution factor.
N	Indicates presumptive evidence of a compound. This flag is used only for tentatively identified compounds, where the identification is based on the Mass Spectral library search. It is applied to all TIC results.
P	This flag is used for CLP methodology only. For Pesticide/Aroclor target analytes, when a difference for detected concentrations between the two GC columns is greater than 25%, the lower of the two values is reported on the data page and flagged with a "P".
A	This flag indicates that a TIC is a suspected aldol-condensation product.
1	Indicates coelution.
*	Indicates analysis is not within the quality control limits.

INORGANIC DATA QUALIFIERS

ND or U	Indicates element was analyzed for, but not detected. Report with the detection limit value.
J or B	Indicates a value greater than or equal to the instrument detection limit, but less than the quantitation limit.
N	Indicates spike sample recovery is not within the quality control limits.
S	Indicates value determined by the Method of Standard Addition.
E	Indicates a value estimated or not reported due to the presence of interferences.
H	Indicates analytical holding time exceedance. The value obtained should be considered an estimate.
*	Indicates the spike or duplicate analysis is not within the quality control limits.
+	Indicates the correlation coefficient for the Method of Standard Addition is less than 0.995.

STL BUFFALO

Benchmark Environmental & Engineering Science

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: Benchmark Environmental & Engine **SDG No.:** A07-0961 **Method Type:**

Sample ID: A7096111 **Client ID:** BLIND DUPE

Matrix: WATER **Date Received:** 1/30/2007 **Date Collected:** 1/30/2007 **Level:** LOW

% Solids: **Sample Wt/Vol:** 50.0 **Final Vol:** 50.0

Prep Batch ID: A7B01601 **Prep Date:** 2/2/2007

Analyte	Concentration	Units	C	Qual	RL	RL	Dil	Analytical Date	Analytical Time	Instrument	Run	M
Chromium	**14400**	**ug/L**			**4.0**	4.0	**1**	**2/2/2007**	**15:28**	SUPERTRACE	1020207	P

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: Benchmark Environmental & Engine **SDG No.:** A07-0961 **Method Type:**

Sample ID: A7096101 **Client ID:** TP-2 (2)

Matrix: WATER **Date Received:** 1/30/2007 **Date Collected:** 1/30/2007 **Level:** LOW

% Solids: **Sample Wt/Vol:** 50.0 **Final Vol:** 50.0

Prep Batch ID: A7B01511 **Prep Date:** 2/1/2007

Analyte	Concentration	Units	C	Qual	RL	RL	Dil	Analytical Date	Analytical Time	Instrument	Run	M
Chromium	**6660**	**ug/L**			**4.0**	4.0	**1**	**2/1/2007**	**22:39**	SUPERTRACE	1020107	P

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: Benchmark Environmental & Engine **SDG No.:** A07-0961 **Method Type:**

Sample ID: A7096102 **Client ID:** TP-2 10% PC

Matrix: WATER **Date Received:** 1/30/2007 **Date Collected:** 1/30/2007 **Level:** LOW

% Solids: **Sample Wt/Vol:** 50.0 **Final Vol:** 50.0

Prep Batch ID: A7B01511 **Prep Date:** 2/1/2007

Analyte	Concentration	Units	C	Qual	RL	RL	Dil	Analytical Date	Analytical Time	Instrument	Run	M
Chromium	**12300**	**ug/L**			**4.0**	4.0	**1**	**2/1/2007**	**23:18**	SUPERTRACE	1020107	P

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: Benchmark Environmental & Engine **SDG No.:** A07-0961 **Method Type:**

Sample ID: A7096103 **Client ID:** TP-2 15% LIME

Matrix: WATER **Date Received:** 1/30/2007 **Date Collected:** 1/30/2007 **Level:** LOW

% Solids: **Sample Wt/Vol:** 50.0 **Final Vol:** 50.0

Prep Batch ID: A7B01511 **Prep Date:** 2/1/2007

Analyte	Concentration	Units	C	Qual	RL	RL	Dil	Analytical Date	Analytical Time	Instrument	Run	M
Chromium	**5910**	**ug/L**			**4.0**	4.0	**1**	**2/1/2007**	**23:23**	SUPERTRACE	1020107	P

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: Benchmark Environmental & Engine **SDG No.:** A07-0961 **Method Type:**

Sample ID: A7096104 **Client ID:** TP-2 2% FESO4

Matrix: WATER **Date Received:** 1/30/2007 **Date Collected:** 1/30/2007 **Level:** LOW

% Solids: **Sample Wt/Vol:** 50.0 **Final Vol:** 50.0

Prep Batch ID: A7B01511 **Prep Date:** 2/1/2007

Analyte	Concentration	Units	C	Qual	RL	RL	Dil	Analytical Date	Analytical Time	Instrument	Run	M
Chromium	**2850**	**ug/L**			**4.0**	4.0	**1**	**2/1/2007**	**23:28**	SUPERTRACE	1020107	P

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: Benchmark Environmental & Engine **SDG No.:** A07-0961 **Method Type:**

Sample ID: A7096105 **Client ID:** TP-2 5% FESO4

Matrix: WATER **Date Received:** 1/30/2007 **Date Collected:** 1/30/2007 **Level:** LOW

% Solids: **Sample Wt/Vol:** 50.0 **Final Vol:** 50.0

Prep Batch ID: A7B01511 **Prep Date:** 2/1/2007

Analyte	Concentration	Units	C	Qual	RL	RL	Dil	Analytical Date	Analytical Time	Instrument	Run	M
Chromium	**4320**	**ug/L**			**4.0**	4.0	**1**	**2/1/2007**	**23:33**	SUPERTRACE	1020107	P

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: Benchmark Environmental & Engine **SDG No.:** A07-0961 **Method Type:**

Sample ID: A7096106 **Client ID:** TP-6 (2)

Matrix: WATER **Date Received:** 1/30/2007 **Date Collected:** 1/30/2007 **Level:** LOW

% Solids: **Sample Wt/Vol:** 50.0 **Final Vol:** 50.0

Prep Batch ID: A7B01511 **Prep Date:** 2/1/2007

Analyte	Concentration	Units	C	Qual	RL	RL	Dil	Analytical Date	Analytical Time	Instrument	Run	M
Chromium	**6040**	**ug/L**			**4.0**	4.0	**1**	**2/1/2007**	**23:38**	SUPERTRACE	1020107	P

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: Benchmark Environmental & Engine **SDG No.:** A07-0961 **Method Type:**

Sample ID: A7096107 **Client ID:** TP-6 10% PC

Matrix: WATER **Date Received:** 1/30/2007 **Date Collected:** 1/30/2007 **Level:** LOW

% Solids: **Sample Wt/Vol:** 50.0 **Final Vol:** 50.0

Prep Batch ID: A7B01601 **Prep Date:** 2/2/2007

Analyte	Concentration	Units	C	Qual	RL	RL	Dil	Analytical Date	Analytical Time	Instrument	Run	M
Chromium	**12200**	**ug/L**			**4.0**	4.0	**1**	**2/2/2007**	**15:03**	SUPERTRACE	1020207	P

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: Benchmark Environmental & Engine **SDG No.:** A07-0961 **Method Type:**

Sample ID: A7096108 **Client ID:** TP-6 15% LIME

Matrix: WATER **Date Received:** 1/30/2007 **Date Collected:** 1/30/2007 **Level:** LOW

% Solids: **Sample Wt/Vol:** 50.0 **Final Vol:** 50.0

Prep Batch ID: A7B01601 **Prep Date:** 2/2/2007

Analyte	Concentration	Units	C	Qual	RL	RL	Dil	Analytical Date	Analytical Time	Instrument	Run	M
Chromium	**5490**	**ug/L**			**4.0**	4.0	**1**	**2/2/2007**	**14:48**	SUPERTRACE	1020207	P

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: Benchmark Environmental & Engine **SDG No.:** A07-0961 **Method Type:**

Sample ID: A7096109 **Client ID:** TP-6 2% FESO4

Matrix: WATER **Date Received:** 1/30/2007 **Date Collected:** 1/30/2007 **Level:** LOW

% Solids: **Sample Wt/Vol:** 50.0 **Final Vol:** 50.0

Prep Batch ID: A7B01601 **Prep Date:** 2/2/2007

Analyte	Concentration	Units	C	Qual	RL	RL	Dil	Analytical Date	Analytical Time	Instrument	Run	M
Chromium	**2690**	**ug/L**			**4.0**	4.0	**1**	**2/2/2007**	**14:53**	SUPERTRACE	1020207	P

Comments:

STL BUFFALO

Benchmark Environmental & Engineering Science

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: Benchmark Environmental & Engine **SDG No.:** A07-0961 **Method Type:**

Sample ID: A7096110 **Client ID:** TP-6 5% FESO4

Matrix: WATER **Date Received:** 1/30/2007 **Date Collected:** 1/30/2007 **Level:** LOW

% Solids: **Sample Wt/Vol:** 50.0 **Final Vol:** 50.0

Prep Batch ID: A7B01601 **Prep Date:** 2/2/2007

Analyte	Concentration	Units	C	Qual	RL	RL	Dil	Analytical Date	Analytical Time	Instrument	Run	M
Chromium	**2570**	**ug/L**			**4.0**	4.0	**1**	**2/2/2007**	**14:58**	SUPERTRACE	1020207	P

Comments:

APPENDIX D

DATA USABILITY SUMMARY REPORT (DUSR)

Data Validation Services

120 Cobble Creek Road P. O. Box 208
North Creek, N. Y. 12853
Phone 518-251-4429
Facsimile 518-251-4428

September 15, 2007

Mike Lesakowski
Benchmark Env. Engineers
726 Exchange St. Suite 624
Buffalo, NY 14210

RE: **Data Usability Summary Report** for the 2250 Factory Outlet Boulevard site
STL-Buffalo SDG Nos. A06-F190, A06-F297, A06-405, and A07-157
STL-Pittsburg SDG Nos. C6L200300, C6L220251, and C6L220255

Dear Mr. Lesakowski:

Review has been completed for the data packages generated by Severn Trent Laboratories (STL) that pertain to samples collected 12/18/06 through 1/05/07 at the 2250 Factory Outlet site. Thirty-five soil samples and two field duplicates were processed for total chromium. Eleven of those soil samples were also analyzed for TCLP chromium, and sixteen of those soils and two field duplicates were also processed for hexavalent chromium. Four soil samples and a field duplicate were processed for TCL semivolatiles (BNA), TCL pesticides/PCBs, three herbicides, and TAL metals. Three aqueous samples and a field duplicate were processed for TCL Volatiles, TCL Semivolatiles, TCL PCBs, total and dissolved TAL metals, and hexavalent chromium. The methodologies utilized are those of the 2000 NYSDEC ASP CLP, USEPA SW846, and EPA 7196. The analyses for hexavalent chromium in the soil samples were subcontracted too STL-Pittsburgh.

The data packages submitted contain full deliverables for validation, but this usability report is generated from review of the summary form information, with review of sample raw data, and limited review of associated QC raw data. Full validation has not been performed. However, the reported summary forms have been reviewed for application of validation qualifiers, using guidance from the USEPA Region 2 validation SOPs, the USEPA National Functional Guidelines for Data Review, the specific laboratory methodologies, and professional judgment, as affects the usability of the data. The following items were reviewed:

* Laboratory Narrative Discussion
* Custody Documentation
* Holding Times
* Surrogate and Internal Standard Recoveries
* Matrix Spike Recoveries/Duplicate Correlations
* Field Duplicate Correlations
* Preparation/Calibration Blanks
* Control Spike/Laboratory Control Samples
* Instrumental Tunes
* Calibration Standards

* ICP Serial Dilution
* CRI/CRA Standards
* Instrument IDLs
* Method Compliance
* Sample Result Verification

Those items listed above which show deficiencies are discussed within the text of this narrative. All of the other items were determined to be acceptable for the DUSR level review.

In summary, data were primarily processed in compliance with protocol requirements, and sample results are usable, with no data rejected. However, most of the total chromium results and all of the hexavalent chromium (and consequently trivalent chromium) results are qualified as being estimated in value due to matrix effects, and the filtered metals results are qualified as estimated due to delayed laboratory preservation.

Copies of laboratory sample identification summary forms that list the samples included in this report are attached to this text. Included with this submission are red-ink edited client tables that reflect final sample results with edits and qualifications recommended within this report.

The following text discusses quality issues of concern.

Chain-of-Custody

No entry for time of release was present on two of the field custody forms for samples reported in SDG A06-F297. The entry for release time was also not present on the custody for the subcontract transfer of these samples to STL-Pittsburg. Signatures and dates were present. A down-arrow was also missing on the collection date for samples collected 12/20/06 and reported in that same SDG. These items do not impact the integrity of the sample reported values.

Data Package Completeness

Although required, the client ID is not provided on the raw sample data. Metals raw data and sample forms do not reflect the laboratory ID number; they show a unique digestate number.

The laboratory case narratives do not include the required "verbatim" statement, and some were not signed by the laboratory.

Raw metals digestion logs do not show entries to reflect the addition of spiking compounds to the matrix spikes.

Although required of the protocol, individual solids determinations were not performed for the parent samples and their matrix spikes/laboratory duplicates. Therefore, the spike and duplicate accuracy and precision results may not accurately reflect dry weight determinations, and may vary from those reported.

TCL Volatiles by NYSDEC ASP OLM4.3

Matrix spikes (MS and MSD) of MW-3 show acceptable accuracy and precision. Blind field duplicate correlations for MW-1 are also within guidelines.

Calibrations standards showed acceptable responses. Sample holding time requirements were met, and surrogate and internal standard responses meet protocol requirements. Blanks show no contamination.

Tentatively Identified Compounds (TICs) that are flagged as "B" are considered external contamination, as shown by presence in the associated blanks.

TCL Semivolatiles by NYSDEC ASP OLM4.3

The aqueous samples were re-extracted beyond holding time, due to outlying internal standard response in the associated method blank. The initial sample analysis results can be used without additional qualification.

Matrix spikes (MS and MSD) for SS-1,2 COMP and MW-3 show acceptable accuracy and precision. Blind field duplicate correlations for MW-1 and SS-1,2-COMP are also within guidelines.

Calibration standards showed responses within laboratory requirements and validation guidelines, with the exception of those for caprolactum, 2,4-dinitrophenol, and 4-nitrophenol (26%D to 30%D) in the calibration associated with the aqueous samples. Results for those analytes in the aqueous samples are to be qualified as estimated ("UJ").

The method blank of 12/26/06 showS low level detections of 4-nitrophenol, pentachlorophenol, di-n-butylphthalate, and bis(2-ethylhexyl)phthalate. The detections of these compounds in the associated samples are considered external contamination, and are edited to reflect non-detection.

Detected results for bis(2-ethylhexyl)phthalate in the samples reported in the aqueous samples are considered external contamination, and edited to reflect non-detection ("U" or "ND") due to presence in the associated method blank.

Tentatively Identified Compounds (TICs) that are flagged as "B" and/or "A" are considered external contamination, as shown by presence in the associated blanks.

TCL PCB/Pesticides/Herbicide Analyses by NYSDEC ASP OLM4.3

Some of the pesticide reported detections may reflect responses from the matrix. They show elevated dual column correlations, with resulting qualifications as either estimated in value ("J"), tentative in identification and estimated in value ("NJ"), or edited to nondetection ("U"; sometimes at elevated reporting limits). They are as follows:

- endrin ketone is edited to reflect nondetection in MW-2 2-4 and MW-3 8-10
- methoxychlor is edited to reflect nondetection, and endosulfan II and 4,4'-DDT are qualified "NJ", in SS-1,2-COMP
- 4,4'-DDT is edited to reflect nondetection in Blind Dup (12/21/06)

Surrogate standard DCB produced elevated recoveries in Blind Dup. There are no detected values, and therefore no qualification is required.

Calibration standards meet protocol requirements, with the exceptions of outlying responses on the confirmation column of samples reporting no initial detections; results are unaffected.

Matrix spikes of pesticides in MW-3 and SS-1,2-COMP are acceptable, with the exception of a single elevated recovery. Matrix spikes of herbicides in SS-1,2-COMP are also within recommended limits.

The reporting limits for Aroclors in Blind Dup that were provided in the data package (SDG A07-157) are not consistent or correct. The reporting limits should be 0.82 ug/L.

Blind field duplicate correlations for MW-1 and SS-1,2-COMP are acceptable.

The pesticide fraction of the soil Blind Duplicate was processed at tenfold dilution; the reason is not evident. This results in elevated reporting limits. The parent sample was analyzed undiluted, and therefore there is no impact on the project data quality.

Holding times were met and blanks showed no contamination.

TAL Metals, Total Chromium, or TCLP Chromium by NYSDEC ASP CLP-M

Although the custody requested lab preservation of the filtered fractions of the aqueous samples (the samples were forwarded to the laboratory within two hours of collection), the preservation was not performed until ten days after receipt. Results for all soluble fractions are therefore to be qualified as estimated ("J"/"UJ"), and may have a low bias.

Matrix spike/duplicate evaluations of TAL metals were performed on the total and soluble fractions of MW-3 and on soil sample SS-1,2-COMP. The following recoveries exceed validation guidelines, and the results of those elements are qualified as estimated in the indicated samples:

Parent Sample	Analyte	% Recoveries	Associated Samples
SS-1,2-COMP	arsenic	182 and 212	A06-405
	copper	157 and 159	"
	chromium	40 and 37	"
MW-3 (Unfiltered)	aluminum	132 and 290	A07-157 (unfiltered)
	iron	231 and 894	"

Matrix spike (MS and MSD) recoveries of total chromium TP-1/SL#1(0.0-2.0) and TP-2(0.0-2.5), and in the TCLP leachate of TP-2(0.0-2.5) could not be evaluated due to high parent sample concentrations. Duplicate correlations are within validation guidelines.

Blind field duplicate correlations for TAL metals in MW-1show acceptable results for the soluble fraction, but outlying values for iron and aluminum in the total fraction. Those values have been qualified as estimated.

Blind field duplicate correlations for total chromium in TP-1/SL#1(0-2) and TP-2(0-2.5) are acceptable.

The ICP serial dilution evaluations of chromium in the following soil samples show elevated correlations (>10%D), and the indicated associated detections are qualified as estimated:

Parent Sample	Correlation, %D	Associated Samples
TP-1/SL1)0.0-2.0)	15	A06-F190
TP-2(0.0-2.5)	15	A06-F297
MW-3-Soluble	14	A07-157-Filtered

Zinc showed an elevated serial dilution correlation (12%D) in SS-1,2-COMP. Detected results for that element in the samples reported in SDG A06-F405 are therefore qualified as estimated.

The ICP serial dilution evaluation of chromium in the TCLP leachate of TP-2(0.0-2.5) is acceptable.

Filtered metals results correlate well with the unfiltered fractions, with the following exceptions, results of which are higher in the filtered, and are qualified as estimated in both fractions of the given samples:

Element	Element	%D Increase
MW-2	sodium	11
MW-4	sodium	22

Holding times were met. Blanks associated with sample analyses show no contamination above the reporting limit.

Hexavalent Chromium

Review was conducted for method compliance, transcription, calculations, standard and blank acceptability, accuracy and precision, etc., as applicable to the procedure. All were found acceptable unless noted specifically within this text.

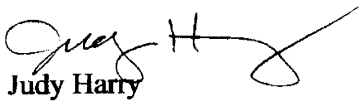
Matrix spike and duplicate evaluations performed on TP-1/SL#1(0.0-2.0) show low recoveries (56% and 23%, below the advisory limit of 75%). Therefore, hexavalent chromium results in all of the samples are qualified as being estimated in value.

The blind field duplicate correlation for TP-2(0-2.5) is acceptable. That for TP-1/SL#1(0-2) shows a large variance (4.7 mg/kg and 129 mg/kg). The results for hexachrome in the parent sample and its duplicate are therefore considered additionally estimated.

The reporting limit for MW-4 was elevated (twofold) due to interferences.

Please do not hesitate to contact me if you have comments or questions regarding this report.

Very truly yours,



Judy Harry

VALIDATION QUALIFIER DEFINITIONS

DATA QUALIFIER DEFINITIONS

The following definitions provide brief explanations of the national qualifiers assigned to results in the data review process. If the Regions choose to use additional qualifiers, a complete explanation of those qualifiers should accompany the data review.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

N - The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification".

NJ - The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

UJ - The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R - The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

LABORATORY SAMPLE IDs AND CASE NARRATIVES

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION
AND
ANALYTICAL REQUEST SUMMARY

LAB NAME: SEVERN TRENT LABORATORIES, INC.

CUSTOMER SAMPLE ID	LABORATORY SAMPLE ID	ANALYTICAL REQUIREMENTS						
		VOA GC/MS	BNA GC/MS	VOA GC	PEST PCB	METALS	TCLP HERB	WATER QUALITY
BLIND DUP #1	A6F36102	-	-	-	-	ASP00	-	SW8463
SB-12 (1-2)	A6F19001	-	-	-	-	ASP00	-	-
SB-13 (2-3)	A6F19002	-	-	-	-	ASP00	-	-
SB-14 (1.5-2.5)	A6F19003	-	-	-	-	ASP00	-	-
SB-15 (1-2)	A6F19004	-	-	-	-	ASP00	-	-
SB-16 (1-2)	A6F19005	-	-	-	-	ASP00	-	-
SB-17 (1-2)	A6F19101	-	-	-	-	ASP00	-	SW8463
SB-17 (4-5)	A6F19007	-	-	-	-	ASP00	-	-
SB-18 (1-2)	A6F19008	-	-	-	-	ASP00	-	
SB-19 (1-2)	A6F19009	-	-	-	-	ASP00	-	-
SB-20 (1-2)	A6F19010	-	-	-	-	ASP00	-	-
SB-21 (0.5-1.5)	A6F19011	-	-	-	-	ASP00	-	-
SB-22 (1-2)	A6F19012	-	-	-	-	ASP00	-	-
SB-23 (1-2)	A6F19013	-	-	-	-	ASP00	-	-
TP-1/ SL#1 (2-2.5	A6F28803	-	-	-	-	ASP00	-	-
TP-1/ SL#2 (0-2.0	A6F28804	-	-	-	-	ASP00	-	-
TP-1/SL#1 (0.0-2.	A6F36101	-	-	-	-	ASP00	-	SW8463
TP-1/SL#2 (0.0-2.	A6F36104	-	-	-	-	-	-	SW8463
TP-2 (2.5-3.0)	A6F28808	-	-	-	-	ASP00	-	-
TP-3 SL#1 (0-2)	A6F28809	-	-	-	-	ASP00	-	SW8463
TP-3 SL#1 (2-3)	A6F28810	-	-	-	-	ASP00	-	-
TP-3/SL#1 (0-2)	A6F36106	-	-	-	-	-	-	SW8463

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION
AND
ANALYTICAL REQUEST SUMMARY

LAB NAME: SEVERN TRENT LABORATORIES, INC.

CUSTOMER SAMPLE ID	LABORATORY SAMPLE ID	ANALYTICAL REQUIREMENTS						
		VOA GC/MS	BNA GC/MS	VOA GC	PEST PCB	METALS	TCLP HERB	WATER QUALITY
BLIND DUP #2	A6F36202	-	-	-	-	-	-	SW8463
BLIND DUP#2	A6F29702	-	-	-	-	ASP00	-	SW8463
TP-10 (0.0-1.5)	A6F29715	-	-	-	-	ASP00	-	SW8463
TP-10(0.0-1.5)	A6F36215	-	-	-	-	-	-	SW8463
TP-11 (0.0-2.0)	A6F29716	-	-	-	-	ASP00	-	SW8463
TP-11(0.0-2.0)	A6F36216	-	-	-	-	-	-	SW8463
TP-12 (1.5-2.5)	A6F29717	-	-	-	-	ASP00	-	SW8463
TP-12(1.5-2.5)	A6F36217	-	-	-	-	-	-	SW8463
TP-2 (0.0-2.5)	A6F36201	-	-	-	-	ASP00	-	SW8463
TP-3/SL#2 (0-2)	A6F36203	-	-	-	-	ASP00	-	SW8463
TP-4 (0.0-2.5)	A6F36204	-	-	-	-	ASP00	-	SW8463
TP-4 (2.5-3.0)	A6F29705	-	-	-	-	ASP00	-	-
TP-5/SL#1 (2.0-2.	A6F36207	-	-	-	-	ASP00	-	SW8463
TP-5/SL#1 (2.5-3.	A6F29706	-	-	-	-	ASP00	-	-
TP-5/SL#2 (2.0-2.	A6F36208	-	-	-	-	ASP00	-	SW8463
TP-6/SL#1 (0.0-3.	A6F36209	-	-	-	-	ASP00	-	SW8463
TP-6/SL#1 (3.0-3.	A6F29710	-	-	-	-	ASP00	-	-
TP-6/SL#2 (0.0-3.	A6F36211	-	-	-	-	ASP00	-	SW8463
TP-7 (0.0-3.0)	A6F36212	-	-	-	-	ASP00	-	SW8463
TP-8 (0.0-2.0)	A6F36213	-	-	-	-	ASP00	-	SW8463
TP-9 (0.0-3.0)	A6F36214	-	-	-	-	ASP00	-	SW8463

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION
AND
ANALYTICAL REQUEST SUMMARY

LAB NAME: SEVERN TRENT LABORATORIES, INC.

CUSTOMER SAMPLE ID	LABORATORY SAMPLE ID	ANALYTICAL REQUIREMENTS						
		VOA GC/MS	BNA GC/MS	VOA GC	PEST PCB	METALS	TCLP HERB	WATER QUALITY
BLIND DUP#1	A6F40502	-	ASP00	-	ASP00	ASP00	-	SW8463
MW-1 (6-8)	A6F40503	-	ASP00	-	ASP00	ASP00	-	SW8463
MW-2 (2-4)	A6F40504	-	ASP00	-	ASP00	ASP00	-	SW8463
MW-3 (8-10)	A6F40505	-	ASP00	-	ASP00	ASP00	-	SW8463
SS-1,2 COMP	A6F40501	-	ASP00	-	ASP00	ASP00	-	SW8463

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION
AND
ANALYTICAL REQUEST SUMMARY

LAB NAME: SEVERN TRENT LABORATORIES, INC.

CUSTOMER SAMPLE ID	LABORATORY SAMPLE ID	ANALYTICAL REQUIREMENTS						
		VOA GC/MS	BNA GC/MS	VOA GC	PEST PCB	METALS	TCLP HERB	WATER QUALITY
BLIND DUP	A7015702	ASP00	ASP00	-	SW8463	ASP00	-	SW8463
MW-1	A7015701	ASP00	ASP00	-	SW8463	ASP00	-	SW8463
MW-2	A7015703	ASP00	ASP00	-	SW8463	ASP00	-	SW8463
MW-3	A7015704	ASP00	ASP00	-	SW8463	ASP00	-	SW8463
MW-4	A7015705	-	-	-	-	ASP00	-	SW8463

NON-CONFORMANCE SUMMARY

Job#: A06-F297,A06-F362

STL Project#: NY4A9217
SDG#: F297
Site Name: Benchmark

General Comments

The enclosed data may or may not have been reported utilizing data qualifiers (Q) as defined on the Data Comment Page.

Soil, sediment and sludge sample results are reported on "dry weight" basis unless otherwise noted in this data package.

According to 40CFR Part 136.3, pH, Chlorine Residual, Dissolved Oxygen, Sulfite, and Temperature analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. pH-Field), they were not analyzed immediately, but as soon as possible after laboratory receipt.

Sample dilutions were performed as indicated on the attached Dilution Log. The rationale for dilution is specified by the 3-digit code and definition.

Sample Receipt Comments

A06-F297
Sample Cooler(s) were received at the following temperature(s); 3.0 °C
All samples were received in good condition.
A06-F362
Sample Cooler(s) were received at the following temperature(s); 3.0 °C
All samples were received in good condition.

Metals Data

The recoveries of sample TP-2 (0.0-2.5) Matrix Spike and Matrix Spike Duplicate exhibited results below the quality control limits for Chromium. The recoveries of TCLP sample TP-2 (0.0-2.5) exhibited results above the quality control limits for Chromium. The sample result is more than four times greater than the spike added. The RPD of sample TP-2 (0.0-2.5) Matrix Spike and Matrix Spike Duplicate exceeded the quality control limits for Chromium. The LCS's were acceptable.

The recovery of sample TP-2 (0.0-2.5) Post Spike exhibited a result below the quality control limits for Chromium. However, the LCS was acceptable.

The RPD of sample TP-2 (0.0-2.5) and the Matrix Duplicate exceeded the quality control limits for Chromium. However, the LCS was acceptable.

The Serial Dilution of sample TP-2 (0.0-2.5) exceeded the quality control limits for Chromium. However, the LCS was acceptable.

Wet Chemistry Data

Hexavalent Chromium was subcontracted to STL Pittsburgh. The complete subcontract report is included in this report as Appendix A. Comments pertaining to Hexavalent Chromium may be found within the comment summary of the subcontract report.

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The results presented in this report relate only to the analytical testing and condition of the sample at receipt. This report pertains to only those samples actually tested. All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.

NON-CONFORMANCE SUMMARY

Job#: A06-F405

STL Project#: NY4A9217
SDG#: F405
Site Name: Benchmark

General Comments

The enclosed data may or may not have been reported utilizing data qualifiers (Q) as defined on the Data Comment Page.

Soil, sediment and sludge sample results are reported on "dry weight" basis unless otherwise noted in this data package.

According to 40CFR Part 136.3, pH, Chlorine Residual, Dissolved Oxygen, Sulfite, and Temperature analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. pH-Field), they were not analyzed immediately, but as soon as possible after laboratory receipt.

Sample dilutions were performed as indicated on the attached Dilution Log. The rationale for dilution is specified by the 3-digit code and definition.

Sample Receipt Comments

A06-F405
Sample Cooler(s) were received at the following temperature(s); 2.0 °C
All samples were received in good condition.

GC/MS Semivolatile Data

The chromatographic peaks for Benzo(b)fluoranthene and Benzo(k)fluoranthene could not be resolved for sample Matrix Spike SS-1,2 COMP due to the sample matrix. The final value is reported as Benzo(b)fluoranthene in this data package but should be considered an and/or value for both compounds.

GC Extractable Data

For Method 8151, the percent recovery (%R) of surrogate Dichlorophenyl Acetic Acid (DCBP) in sample SS-1,2 Comp Matrix Spike is outside of established quality control limits due to sample matrix interferences. The recovery of all other surrogates in the remaining samples and associated quality control samples within this extraction batch are within expected limits. No corrective action is required.

For method CLP Pesticide/PCB analysis, the recovery of surrogate Decachlorobiphenyl in several samples is outside of established quality control limits on one or both columns due to the sample matrix. The recovery of surrogate Tetrachloro-m-xylene on both columns is within quality control criteria; no corrective action is required.

For method PESTICIDE/PCBs, the recovery for 4,4'-DDT in the Matrix Spike of sample SS-1,2COMP exceeds quality control limits, though the Matrix Spike Blank recoveries are compliant.

For method 8151, several compounds exhibited a percent difference (%D) of greater than 15% from the expected amount in the associated continuing calibrations. The average of all analytes is within 15% and the associated laboratory quality control recoveries are compliant. No corrective action was required.

Metals Data

The recoveries of sample SS-1,2 COMP Matrix Spike and Matrix Spike Duplicate exhibited results above the quality control limits for Lead and Manganese(MS). The sample result is more than four times greater than the spike added. The RPD of sample SS-1,2 COMP Matrix Spike and Matrix Spike Duplicate exceeded the quality control limits for Manganese. The LCS is acceptable.

The recoveries of sample SS-1,2 COMP Matrix Spike and Matrix Spike Duplicate exhibited results above the quality control limits for Antimony(MSD), Arsenic, Copper, and Zinc(MSD) and below the quality control limits for Chromium. Sample matrix is suspect. However, the LCS was acceptable.

The recoveries of sample SS-1,2 COMP Post Spike exhibited results below the quality control limits for Iron and Manganese. However, the Serial Dilution of this sample was compliant for Iron and Manganese. Therefore, no corrective action is necessary.

The RPD of sample SS-1,2 COMP and the Matrix Duplicate exceeded the quality control limits for Calcium. However, the LCS was acceptable.

The Serial Dilution of sample SS-1,2 COMP exceeded the quality control limits for Zinc. However, the Post Spike of this sample was compliant for Zinc. Therefore, no corrective action is necessary.

Wet Chemistry Data

No deviations from protocol were encountered during the analytical procedures.

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NON-CONFORMANCE SUMMARY

Job#: A07-0157

STL Project#: NY4A9217
Site Name: Benchmark

General Comments

The enclosed data may or may not have been reported utilizing data qualifiers (Q) as defined on the Data Comment Page.

Soil, sediment and sludge sample results are reported on "dry weight" basis unless otherwise noted in this data package.

According to 40CFR Part 136.3, pH, Chlorine Residual, Dissolved Oxygen, Sulfite, and Temperature analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. pH-Field), they were not analyzed immediately, but as soon as possible after laboratory receipt.

Sample dilutions were performed as indicated on the attached Dilution Log. The rationale for dilution is specified by the 3-digit code and definition.

Sample Receipt Comments

A07-0157
Sample Cooler(s) were received at the following temperature(s); 2 @ 5.0 °C
ME: Lab to filter and preserve Dissolved Metals volume.

Sample volume for S METALS was received in 1l glass amber glass (unpreserved). This volume was poured off into a 1l plastic bottles, ESS Lot Number 110806.

GC/MS Volatile Data

All samples were preserved to a pH less than 2.

GC/MS Semivolatile Data

The spike recoveriy for 4-Nitrophenol was above the method defined quality control limits in the Matrix Spike Blank SBLK99 (A7B0028001), the Matrix Spike MW-3 and the Matrix Spike Duplicate MW-3. The analyte was not detected in the samples, no corrective action was performed.

The internal standard recovey for Perylene-D12 was below method defined quality control limits in the Method Blank SBLK99 (A7B0028002) due to Nitric acid contamination. All samples were re-extracted outside of holding time and re-analyzed with complaint results. Both sets of data have been reported.

The spike recovery for 4-Nitrophenol was above the method defined quality control limits in the Matrix Spike MW-3 RE. Since the Matrix Spike Blank SBLK04 (A70071401) recovery was compliant, no corrective action was required.

GC Extractable Data

For method 8082, the associated calibration verifications demonstrated an increased instrument response, >15% difference, for the surrogate Decachlorobiphenyl. The associated sample surrogate recoveries are well within the quality control limits. In the technical judgment of the laboratory, the sample data has not been impacted and no corrective action is required.

Metals Data

The recoveries of sample MW-3 Matrix Spike exhibited results above the quality control limits for Total Aluminum and Iron. The recoveries of sample MW-3 Matrix Spike Duplicate exhibited results above the quality control limits for Total Aluminum, Iron, Lead, and Manganese. Sample matrix is suspect. The RPD between sample MW-3 Matrix Spike and Matrix Spike Duplicate exceeded the quality control criteria for Total Aluminum, Iron and Lead. The LFB was acceptable.

All volumes for Dissolved Metals were filtered and preserved in the STL Metals Digestion Laboratory on 01/15/2007. Each sample was filtered using a 0.45 micron filter, Pall Life Sciences lot #62302. Each sample was then preserved to a pH <2 with 3.0 mL of Nitric Acid, J.T. Baker lot #C38065.

The recoveries of sample MW-3 Post Spike exhibited results below the quality control limits for Total and Soluble Calcium and Magnesium. However, the Serial Dilutions of these samples and elements were compliant. Therefore, no corrective action was necessary.

The Serial Dilution of sample MW-3 exceeded the quality control limits for Soluble Potassium. However, the Post Spike of this sample and element was compliant. Therefore, no corrective action was necessary.

Wet Chemistry Data

No deviations from protocol were encountered during the analytical procedures.

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APPENDIX E

LAND USE EVALUATION

APPENDIX E
LAND USE EVALUATION

The current, intended, and reasonably anticipated future land use of the Site and is commercial. The reasonably anticipated future land use of its immediate surroundings is commercial. Per regulations contained in 6NYCRR Part 375, the reasonably anticipated future use of the Site and its surroundings is based on the following factors:

- **Current use and historical and/or recent development patterns:** *The Site is currently owned by NF-3rd Associates, LLC. The subject property was formerly occupied by Grossman's Lumber since the early 1970s. The property is presently vacant (under redevelopment). A concrete block (slab-on-grade) building formerly located on the western portion of the property was demolished in January 2007. The remainder of the Site was covered with asphalt or grass/landscaping. A Niagara Frontier Transportation Authority (NFTA) bus terminal with associated drives and surface lot parking is planned for the subject property.*

- **Applicable zoning laws and maps:** *The Site is located in an area of the City zoned commercial.*

- **Brownfield opportunity areas as designated set forth in GML 970-r:** *The Brownfield Opportunity Area (BOA) Program provides municipalities and community based organizations with assistance to complete revitalization plans and implementation strategies for areas or communities affected by the presence of brownfield sites, and site assessments for strategic sites. The City of Niagara Falls has two BOAs; however, the subject property does not lie within either BOA.*

- **Applicable comprehensive community master plans, local waterfront revitalization plans as provided for in EL article 42, or any other applicable land use plan formally adopted by a municipality:** *The City of Niagara Falls has developed a Strategic Master Plan; however, the subject property is outside the study area.*

- **Proximity to real property currently used for residential use, and to urban, commercial, industrial, agricultural, and recreational areas:** *Land uses immediately surrounding the Site include an automobile dealership and Military Road to the north; an automobile oil and lube facility and Factory Outlet Boulevard to the south and east; and Interstate 190 to the west. Beyond the adjacent properties, various commercial properties and some vacant properties surround the Site. The BFI/CECOS landfill is located west of Interstate 190. Nearby residential areas are primarily east of the Site approximately 0.25 miles.*

- **Any written and oral comments submitted by members of the public on the proposed use as part of the activities performed pursuant to the citizen participation plan:** *No comments have been received from the public.*

APPENDIX E
LAND USE EVALUATION

- Environmental justice concerns, which for purposes of this subpart, include the extent to which the proposed use may reasonably be expected to cause or increase a disproportionate burden on the community in which the site is located, including low-income minority communities, or to result in a disproportionate concentration of commercial or industrial uses in what has historically been a mixed use or residential community: *None identified.*

- Federal or State land use designations: *There are no State or Federal wetlands or floodplains on the site. The U.S. Department of Agriculture Soil Conservation Service soil survey map of Niagara County describes the general soil type at the site as an association of Darien-Cazenovia-Nunda types and Urban Land. However, based upon field characterization, the soil type at the site more closely resembles the Odessa type due in part to mottling and also an Urban Soil due to the presence of fill.*

- Population growth patterns and projections: *The Town of Niagara, encompassing 9.4 square miles, has a population of approximately 8,649 (2005 estimate, U.S. Census Bureau), a decrease of 329 from the 2000 U.S. Census. The population density in the Town is approximately 1,074 people per square mile. This relatively insignificant population decline indicates population stability, which in turn supports commercial redevelopment.*

- Accessibility to existing infrastructure: *The main local roadways that provide access to the Site are the I-190 (Niagara Expressway), Military Road (Rt. 265), and Factory Outlet Boulevard. Existing sanitary sewer, supplied water, electrical, natural gas and communications utilities are present along Factory Outlet Blvd., immediately adjacent to the Site, and are of sufficient capacity for commercial redevelopment.*

- Proximity of the site to important cultural resources, including federal or State historic or heritage sites or Native American religious sites: *None.*

- Natural resources, including proximity of the site to important federal, State or local natural resources, including waterways, wildlife refuges, wetlands, or critical habitats of endangered or threatened species: *The Site is located within the Erie-Niagara River basin. Viable aquatic habitats in the vicinity of the Site include the Niagara River (approximately 2 miles south) and Cayuga Creek (approximately 0.75 miles east). There are no State or Federal wetlands on the subject property; however, Federal wetlands are located approximately 0.1miles west of the Site. The Site is not adjacent to a Significant Coastal Fish and Wildlife Habitat. There are no known threatened or endangered species, nor important plant habitats listed at the Site.*

- Potential vulnerability of groundwater to contamination that might emanate from the site, including proximity to wellhead protection and groundwater recharge areas and other areas identified by the Department and the State's comprehensive groundwater remediation and protection program established

set forth in ECL article 15 title 31: *Recharge to the Site water table is primarily from rainfall and snowmelt. Precipitation either infiltrates into the soil or moves to the storm drains present within the Site or in the adjacent roadways. Regionally, groundwater in the area has not been developed for industrial, agriculture, or public supply purposes. Municipal potable water service is provided offsite and onsite by the Niagara County Water District. There does not appear to be any groundwater vulnerability potentially related to environmental impacts from onsite areas as chromium was detected in downgradient monitoring well MW-1 at a concentration significantly below its Class GA groundwater quality standard.*

- **Proximity to flood plains:** *A 100-year flood plain is located approximately 0.1 miles to the west of the Site.*

- **Geography and geology:** *Land use surrounding the Site includes light and heavy commercial properties, one large public use area (BFI/CE COS landfill to the west), and some vacant properties. Nearby residential areas are primarily east of the Site approximately 0.25 miles away. The Site is located in the Erie-Ontario Lake Plain Physiographic Province of Western New York. Boring logs indicate that the subsurface soil at the site consists of three distinct horizons: (1) asphalt, concrete or topsoil at grade to approximately 0.3 feet below ground surface (fbgs); (2) a soil/fill layer consisting of mostly sand and gravel with some topsoil, concrete, and asphalt ranging in thickness from 1-foot to approximately 4.0 feet; and (3) a native reddish brown silty clay.*

- **Current institutional controls applicable to the site:** *No institutional controls currently exist for the Site.*