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REMEDIAL INVESTIGATION REPORT FOR THE CAMP PHARSALIA SITE SOUTH PLYMOUTH, NEW YORK

NYSDEC Site No.: 7-09-013

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1.0 INTRODUCTION

1.1 Background

Camp Pharsalia is a large complex of New York State Department of Environmental Conservation (NYSDEC) crew headquarters and a New York State Department of Correctional Services (NYSDCS) active incarceration facility. The incarceration facility is operated by the NYSDCS but is located on property managed by the NYSDEC. One of the work activities formerly performed by the inmates at Camp Pharsalia was a sawmill and wood treatment operation. Wood treatment operations were conducted from approximately 1960 until 1977 within an area on the periphery of Department of Corrections Operations (Site).

Based on potential health concerns raised at a similar state facility, a review of all state owned lands formerly used for wood treatment was initiated in the summer of 1997. In October 1997 the Division of Operations recommended that the NYSDEC perform an environmental investigation at Camp Pharsalia. As a result of that request, the NYSDEC Division of Environmental Remediation initiated a preliminary site investigation. Based on the findings of the Preliminary Investigation, it was concluded that the Site should be added to the State's Registry of Inactive Hazardous Waste Disposal Sites (Registry). In December of 1999, the site was listed on the Registry as a Class 3 Site, meaning that hazardous waste is present, but it does not currently constitute a significant threat to public health and/or the environment.

Shaw Environmental, Inc. (Shaw) prepared a *Remedial Investigation and Feasibility Study (RI/FS) Work Plan* (dated October 4, 2001) based on the results of Preliminary Investigation completed by the NYSDEC (August, 1999), and conducted the associated field activities outlined in this Plan between October 2001 and January 2002. This remedial investigation was required to collect sufficient data to further characterize site conditions, determine the lateral and vertical distribution of the contaminants of concern (COCs), evaluate the risk to human health and/or the environment, and to determine the need for remedial action.

1.2 Objectives

The objective of this *Remedial Investigation Report* is to present the tasks and technologies that were used to complete the remedial investigation at the site and the results from those investigations. In addition, the results from the human health Qualitative Exposure Assessment

are presented. Conclusions and recommendations are presented based on the results of both the Preliminary Investigation and this Remedial Investigation.

1.3 Site Location

Camp Pharsalia is located in the Town of South Plymouth, Chenango County, New York. The location of Camp Pharsalia is illustrated on **Figure 1**. The incarceration facility is operated by the NYSDCS, but is located on property managed by the NYSDEC. The Site is located within the Camp Pharsalia property in an area on the periphery of the Department of Corrections Operations (**Figure 2**). Based on the results from the Preliminary Investigation, the areas requiring further investigation include the former treatment plant and a former outdoor staging area for treated lumber located immediately north-west of the former treatment plant. Since no contamination was found in the former treated lumber storage areas, the Preliminary Investigation eliminated these areas of concern. These areas are illustrated on **Figure 2**. The site is surrounded by New York State Forest, and is bordered by the correctional facility to the north and east (**Figure 3**).

The area around the site is typified by a mature and eroded plateau that is dissected by a series of valleys several hundred feet deep. This plateau has a rolling, rugged appearance. Although the region is dominated by long ridge lines and narrow valleys, the site topography is relatively flat. Due to relatively flat topography, surface water most likely permeates the over burden and disperses slowly into the regional groundwater flow regime. Groundwater on site flows in a north west direction. In addition to State Reforestation Land, the area surrounding the site is rural, used for residential and agricultural purposes. Potable water is provided in the region by wells, which are often screened in bedrock.

1.4 Summary of Preliminary Investigation Report

In May of 1998 the NYSDEC finalized a work plan for the Preliminary Investigation of the Camp Pharsalia site. The Preliminary Investigation was planned in response to reports of pentachlorophenol (PCP) use as part of the wood treatment operation that was conducted at the site. The objective of the Preliminary Investigation was to determine whether hazardous waste was disposed at the site and evaluate the extent of that contamination, if existing. The Preliminary Investigation was initiated in May 1998; the final *Preliminary Investigation Report* was issued by the NYSDEC in August 1999.

The results of the *Preliminary Investigation Report* are summarized below:

Water Supply Well Sampling

There are three water supply wells at Camp Pharsalia. One of the wells is used very infrequently. The main well, located north of the treatment plant, was installed in 1981 and it is located approximately 250 feet northeast of the treatment plant. When installed, groundwater samples were analyzed for standard parameters (color, turbidity, iron, manganese, carbon dioxide, total solids, suspended matter, nitrates, sulfates, chlorides, hardness, alkalinity, calcium magnesium and pH). The NYSDOH maximum contaminant level (MCL) for manganese of 600 ppb was slightly exceeded (700 ppb). The NYSDOH laboratory also analyzed a well water sample for metals, fluoride and nitrites/nitrates. No information is available to determine where this sample was collected from however, no analytes were detected above NYSDOH MCLs.

Two other drinking wells exist on site. Well #2 is located approximately 210 feet north-northeast of the treatment plant and well #3 is located 700 – 1000 feet north-northeast of the treatment plant.

There were two rounds of groundwater sampling in 1992 and 1993. No information describing how the samples were collected or which well sampled was available. However, in 1992 a water supply well was analyzed for polynuclear aromatichydrocarbons (PAHs) and no contaminants were detected. In 1993 a composite sample was collected from the wells at Camp Pharsalia and Camp Georgetown. The water was analyzed for pesticides, PCBs, herbicides and other analytes including PCP. No analytes were detected in the sample.

Surface Soil

No PCP was detected in or around the former treated lumber storage areas above soil screening levels. Since no PCP was detected in the former storage areas, it is unlikely that dioxins are present in the former storage areas due to the co-existence of the two. The absence of PCP (and therefore dioxins) eliminated the former storage areas as areas of concern. Since no PCP was detected in the former storage areas the Preliminary Investigation eliminated these areas as areas of concern.

Four out of five samples collected in front of the treatment plant contained PCP above screening levels for the protection of groundwater.

Subsurface Soil

Test pits and soil borings were installed adjacent to and through the floors of the treatment plant and former lumber storage building. Since no analytes were detected under or around the former lumber storage building the Preliminary Investigation eliminated this area as an area of concern.

Subsurface soil samples collected west and underneath the treatment plant demonstrated PCP and dioxin concentrations in excess of the respective soil screening levels.

Sediment

No site-related analytes were detected from sediment samples collected from the drainage ditch which receives drainage from the treatment plant and flows off site to the west.

Groundwater

Odor and sheen were noted on groundwater from PMW-5 as well as elevated concentrations of PCP in subsurface soil directly upgradient and downgradient of PMW-5, however, analytical results for PMW-1, PMW-2, PMW-3, PMW-4 and PMW-5 were “non detect” for PCP and VOCs during the PI sampling event.

Dioxin was found in four wells exceeding the groundwater standard. The dioxin in PMW-5 (0.19 parts per trillion (ppt) exceeded the 2,3,7,8-TCDD equivalence groundwater standard of 0.0007 ng/L (ppt).

Data generated from the NYSDEC Preliminary Investigation is included on the appropriate **Figures and Tables** for comparison and discussion purposes.

In summary, the Preliminary Investigation conducted by the NYSDEC in 1999 identified the areas beneath, west and northwest of the treatment plant as contaminated. The Remedial Investigation was designed to supplement the Preliminary Investigation and further delineate soil and groundwater contamination.

1.5 Contaminants of Concern

Based on the NYSDEC's review of the treatment process at the plant and the results from the Preliminary Investigation, the COCs for this investigation included:

- PCP
- Fuel Oil
- Dioxins and Furans

The PCP solutions used in the wood preserving process were prepared by dissolving technical grade PCP in fuel oil to produce a solution that was 4 to 8 percent PCP. Technical grade PCP contained 85-90 percent PCP; 2 to 6 percent higher molecular weight chlorophenols; 4 to 8 percent 2,3,4,6-tetrachlorophenol; and about 0.1 percent tetrachlorodibenzo-p-dioxins (dioxins) and tetrachlorodibenzofurans (furans). PCP is slightly soluble in water (8 mg per 100 mL) and adheres strongly to soils (based on organic content, pH, and soil type).

Dioxins and Furans are compounds that form as byproducts during the production of certain chlorophenolic chemicals. The dioxin congener of most concern; 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD), has not been found in PCP produced in the United States. Dioxins and furans also display a very low solubility in water. The compounds adsorb strongly to organic matter and are persistent under ambient environmental conditions. They migrate primarily through the movement of particulate matter (ex: dust generated by earth moving activities or sediments carried by water) and are also transported by the migration of organic solvents and carrier oils. Since the primary source of dioxins and furans at wood preserving sites is discharged PCP, these compounds can be expected to occur in areas where PCP was used or where PCP wastes were disposed.

The terms dioxin and furan refer to two classes of organic compounds. Dioxins and furans are found in technical grade PCP, and therefore could be expected to be present in areas that contain PCP. The polychlorinated dibenzo-p-dioxin (PCDD) molecule is composed of two benzene rings held together by two oxygen bridges. Chlorine atoms may be substituted for hydrogen at any of the eight positions on the benzene rings. The number and positions of the chlorine atoms determine the toxicity of the molecule. There are 75 possible configurations of dioxin, called congeners. Different configurations with the same number of substituted chlorine atoms are referred to as isomers. The most toxic dioxin congener is 2,3,7,8 tetrachlorinated dibenzo-p-dioxin (2,3,7,8-TCDD). Dioxin congeners with fewer than four substituted chlorine atoms are generally less toxic than the other, more highly substituted congeners.

Furans are structurally identical to dioxins except that only one oxygen bridge connects the two benzene rings. There are 135 possible furan congeners. Similar to dioxins, the most toxic furan is 2,3,7,8 tetrachlorinated dibenzofuran (2,3,7,8-TCDF).

Because 2,3,7,8-TCDD is the most toxic form of dioxin, the USEPA has established factors that equate the toxicity for other dioxin congeners and furans to that of 2,3,7,8-TCDD. Therefore, concentrations of dioxin and furan results will be discussed as the 2,3,7,8-TCDD equivalence, rather than reporting each individual congener.

Fuel oils are mixtures of aliphatic and aromatic petroleum hydrocarbons and include several polycyclic aromatic hydrocarbons (PAHs) and BTEX (benzene, toluene, ethylbenzene, and xylene) related compounds. Fuel oil No. 2 is typically used as a home heating oil or as an industrial heating oil. At this site, fuel oil No. 2 was used as a carrier for wood preserving compounds. Fuel oil is a colorless to brown liquid that is less dense than water.

1.6 Report Organization

This Remedial Investigation Report is organized into five sections as described below:

- **Section 1.0; Introduction**. Includes a summary of the project Background, a statement of the project Objectives, a description of the Site Location, a Summary of Previous Investigations, and describes the Report Organization.
- **Section 2.0; Scope of Work**. Includes a description of the scope and methodologies of the field investigation and describes the general parameters used when completing the Qualitative Exposure Assessment.
- **Section 3.0; Investigation Results**. Presents a summary of the sites physical characteristics and a description of the nature and extent of contamination based on field and laboratory results from the remedial investigation activities.
- **Section 4.0; Conclusions and Recommendations**. Includes a summary of the conclusions and recommendations developed based upon the data collected.
- **Section 5.0; References**. Provides a listing of references used when developing the remedial investigation report.

Due to the volume of data generated, laboratory reports have been summarized in tables and included in the *Tables* appendix. Similarly, all figures referenced in this report are included in the *Figures* appendix.

2.0 FIELD INVESTIGATION

A description of field activities performed at the site is presented in the following sections. All site activities were conducted in compliance with the *Remedial Investigation Work Plan*, the *Site Health and Safety Plan* (HASP), *Field Sampling Plan* (FSP), and *Quality Assurance Project Plan* (QAPP). Any deviations from The Department approved plans are noted in the text.

Field investigation activities were conducted in November 2001 and additional work was completed in October 2002. The sections below include descriptions for both phases of field work.

2.1 Surface Soil Investigation

Surface soil samples were collected from nine locations based on historical operations of the treatment plant. The sampling locations were selected in the field with the NYSDEC and were located in areas of suspected impacts. Samples were collected from approximately 0 to 2 inches below ground surface (bgs) with a decontaminated stainless steel trowel. All surface soil samples collected were sent for laboratory analysis of SVOCs, dioxins and metals. All soil samples were placed in sample jars supplied by the contract laboratory. A summary of the laboratory analytical methods and quantity of samples analyzed is provided in **Table 1**. Surface soil sample locations are illustrated on the Sample Location Map (**Figure 4**).

2.2 Soil Boring Installation and Sampling

A total of thirteen (13) soil borings were installed at the site during the remedial investigation. Seven (7) borings were installed to the north and west of the former treatment plant (SB-1, SB-2, SB-3, SB-4, SB-5, SB-12, SB-13), two (2) were installed north and east of the treatment plant (SB-6, SB-7) three (3) were installed south of the treatment plant (SB-8, SB-9 and SB-10) and one (1) was installed west of the treatment plant. Boring locations are shown on **Figure 4.**

Split spoon soil samples were continuously collected during boring installation. A Field Geologist recorded soil descriptions, including any visual and/or olfactory evidence of contamination that was noted. Drill logs are included as **Appendix A**. Additionally, a portion of each soil sample was split for a headspace monitoring using a calibrated Photoionization

Detector (PID). Samples from each boring were sent to the laboratory for analysis of SVOCs and dioxins. Samples were selected based on elevated PID readings and proximity to the apparent water table. **Table 1** summarizes laboratory analytical methods. Borings were advanced to 8 feet below the apparent water table elevation, or to a depth approved by the onsite DEC representative. All down hole drilling equipment was decontaminated between borings as specified in the FSP and QAPP.

Soil borings SB-1 and SB-2 exhibited a sheen and petroleum-like odors from the soil water interface (approximately 5 feet bgs), to 14 feet bgs. Soil boring SB-11 exhibited a sheen and strong odors from 0-8 bgs. Elevated PID readings were also recorded at this interval. Petroleum-like odors were detected throughout SB-3 and SB-5. No notable odors, sheens or PID readings were detected in SB-4, SB-6, SB-7, SB-8, SB-9, SB-10, SB-12 and SB-13.

2.3 Monitoring Well Installation

An additional monitoring well (PMW-6A) was installed via hollow stem auger drilling techniques. The well was installed northwest of the former treatment plant as presented on **Figure 4**. Continuous split spoon sampling was conducted to completion of the soil boring. Soil characteristics (color, grain size, moisture, etc.) as well as any evidence of impacts to soil were recorded on field boring logs sheets by the site geologist. A portion of each split spoon was split and screened with a PID. Any elevated reading was also recorded on the field boring log sheet. A copy of the boring log for PMW-6A is presented in **Appendix A** of this report.

PMW-6A was advanced to total depth of 16 feet below ground surface (bgs). A summary of the analytical results discussed in **Section 3.0** of this report.

Monitoring well PMW-6A is constructed of 2 – inch PVC riser with a 10 – foot (5.5-15.5 ft. bgs) 0.010-inch slotted screen. A filter pack of “00” Morie sand was placed around the screen and completed to approximately 3.5 ft. bgs. The remaining annulur space was backfilled with a cement – bentonite grout slurry to the groundsurface. The monitoring well was completed at grade with a flush mount road box and surrounded by a concrete pad.

Monitoring well (PMW-6A) was developed several days after completion to allow for the grout and cement to cure. Total well depth and depth to water were recorded and used to determine one well volume. A submersible pump was then lowered just above the bottom of the well. The well was developed; flushing out any sediment that had accumulated at the bottom of the well. More than 10 well volumes were removed from PMW-6A during development. Field parameters

such as pH, conductivity, temperature, and turbidity were recorded throughout development process. Development logs are included as **Appendix B**.

2.4 Groundwater Sample Collection

Prior to sampling, the water level in each of the monitoring wells were gauged to provide information on hydraulic gradients and groundwater flow at the site, as well as to provide information on the presence or absence of immiscible liquids. Measurements of water levels were obtained using an electronic water-level interface probe (IP). Specific procedures for data collection as detailed in the project specific QAPP and FSP were followed. Gauging data is presented as **Appendix C**.

2.5 Groundwater Sampling Events

A total of three groundwater sampling events have been conducted at the site. Two rounds of groundwater samples were collected (1998 and 2001) from the five previously existing monitoring wells (PMW-1, PMW-2, PMW-3, PMW-4, PMW-5) and one (1) round of groundwater samples (2002) were collected from the existing wells (PMW-1, PMW-2, PMW-3, PMW-4, PMW-5) and newly installed monitoring well PMW-6A. Each monitoring well was gauged and purged prior to sample collection as described in the project specific QAPP and FSP.

Petroleum-like odors were noted during the sampling of PMW-1 and PMW-5. A brown-white “tint” was seen in the samples and purge water from PMW-3, PMW-4, and PMW-5. A sheen was noted on the waters from PMW-5 during the December 2001 sampling event. During the November, 2002 sampling event there was no recordable evidence of detectable odors or sheen associated with the purge water. Monitoring wells PMW-2 and PMW-6A exhibited a brown-white turbidity throughout the low-flow purge of these wells.

Groundwater samples were collected using disposable polyethylene bailers. Samples were sent to the laboratory for analysis of SVOCs, dioxin, and by NYSDOH Method 310-34 or 310-13 for fuel oil components only, as shown on **Table 1**. Sample collection procedures were consistent with the requirements of the site specific QAPP and FSP.

2.6 Mapping and Surveying

Following completion of the field investigation activities, a licensed surveyor was contracted to expand the existing site map to include the new sampling locations and site topography. The survey shows all pertinent site features including monitoring wells, site buildings, roads, surface sample locations, topography, and utilities. This survey information has been used to produce the figures included in this *Remedial Investigation Report*.

2.7 Qualitative Exposure Assessment

A Qualitative Exposure Assessment was performed by Shaw to determine the current and potential future exposure pathways associated with baseline (i.e. current or unremediated) site conditions. A field survey to collect site specific information was conducted on January 23, 2002. The Qualitative Exposure Assessment report was prepared as a "stand-alone" report and is included in **Appendix D**. The report is summarized in **Section 3.3**.

2.8 Aerial Photograph Review

At the request of the NYSDEC an aerial photograph review was conducted and 3 photos were purchased and submitted to the State under separate cover to become a part of the NYSDEC project file. An aerial photo taken in 1968 demonstrated evidence of activity on the western side of Camp Pharsalia. There appears to be a row of timbers but this could not be positively identified. No evidence of stressed or dead vegetation could be identified nor could the location of any equipment used for wood treatment processes.

An aerial photo taken in 1974 demonstrates the same timber rows, only smaller in size.

An aerial photo taken in 1977 demonstrates an even smaller row of timbers than in 1974. No activity could be identified in either the 1974 or 1977 photos.

The review of aerial photos was inconclusive as it did not show evidence of any disposal activities.

2.9 Data Validation

An independent data validator, Environmental Quality Assurance, Inc., was subcontracted to review the data and compile a Data Usability Summary Report (DUSR). The DUSR is included as **Appendix E**.

3.0 INVESTIGATION RESULTS

The results from the remedial investigation are presented in the following sections. A description of the site's physical characteristics, the nature and extent of chemical impacts and the results from the exposure assessments are provided.

3.1 Physical Characteristics

3.1.1 Regional Geology

The Northern part of Chenango County is located on a plateau known as the Appalachian Uplands. The plateau is mature and eroded, and is dissected by a series of valleys that are several hundred feet deep. The major valleys on the plateau have a north-south orientation. The high plateau is characterized by large, rounded, bedrock controlled hills and ridges with nearly level hilltops at a similar elevation reflecting the nearly horizontal character of the underlying bedrock. Because of stream dissection and deepening of valleys by glacial scour, the plateau uplands have a rugged, rolling appearance. The rounded shoulders of the hills and steep lower valley sides are also indications of glacial modification.

Regional bedrock consists of an Upper Devonian Formation which includes Tully Limestone, Ithaca Siltstone and Sandstone and Geneseo Shales. The bedrock lies nearly flat, exhibiting a slight regional dip to the south of about 50 feet per mile.

3.1.2 Site Specific Geology

Observations of the site specific subsurface conditions were made during the Preliminary Investigation and this remedial investigation. In general, the upper four feet of overburden consists of brown topsoil with gravel, sand fill with gravel and cobbles or silty clay with gravel and shale fragments. This surface layer is likely fill material placed as a base for buildings and staging treated and untreated lumber. Beneath the fill is glacial lodgement till consisting of clay, sand, silt, and shale cobbles and boulders with clay and sand lenses. The till varies in color including grey, tan, red-brown, and brown. The lodgement till continues to depths of at least 30 feet (which was the vertical extent of both investigations). The till is very dense, as evidenced by the very difficult drilling conditions and high blow counts encountered during monitoring well installations. Observations during drilling and review of boring logs confirms that the upper 13 feet of the till unit contains numerous discontinuous lenses of more permeable sands and fine

gravel that may or may not be interconnected through fractures within the till. A Geologic Cross Section Map is presented as **Figure 5.**

A drinking water well (well #1) was installed in 1981, approximately 250 feet northeast of the treatment plant, to a total depth of 300 feet below ground surface (bgs). Soft shale bedrock was encountered at approximately 134 feet bgs. Clay seams were present between 107 feet and 134 feet bgs. Soft grey sandstone with clay lenses were present from approximately 134 to 140 feet bgs. From 140 to 300 feet the bedrock consisted of a grey shale unit interbedded with thin layers of grey sandstone. Two other drinking water wells also exist on site. Well #2 is located approximately 210 feet north-northeast of the treatment plant and well #3 is located 700-1000 feet north-northeast of the treatment plant. Well #3 was installed after June 2001. All three drinking water wells are located at the correctional facility.

3.1.3 Regional Hydrogeology

Camp Pharsalia is located approximately 1 mile east of Brakel Creek which is presumed to be the nearest discharge zone for Deer Pond. Regionally, groundwater would be anticipated to flow toward Brakel Creek, which eventually discharges into the Otselic River. Shallow groundwater in the area of the site is typically found in coarser grained glacially derived sediments or as perched water over deposits of fine grained sediments of lower permeability.

3.1.4 Site Specific Hydrogeology

Depth to groundwater was observed between approximately three (3) (PMW-1) and six (6) feet bgs (PMW-3) across the investigated area during the December 6, 2001 groundwater sampling event. Depth to groundwater was observed between approximately 2.5 (PMW-6A) and 6 (PMW-3) across the investigated area during the November 2002 sampling event. Groundwater contour maps for the December 2001 and November 2002 sampling events are included as **Figures 6A** and **6B.** Based on groundwater elevations and evaluation of topographic maps, groundwater flow appears to be in a north-northwesterly direction.

Recharge of the water table is likely provided by precipitation infiltrating areas of the property. Shallow groundwater likely exists as isolated “perched pockets” in permeable sandy lenses found within the till. Precipitation accumulates in these pockets and likely slowly disperses into the regional groundwater flow regime.

Groundwater recovery rates during the sampling event indicate that the hydraulic conductivity for the till unit is relatively low.

3.2 Nature and Extent of Contamination

This section presents the analytical results from the surface, soil boring and groundwater samples collected at the site. These results are compared to published New York State standards and/or screening criteria for screening and discussion purposes only.

Soil criteria from the NYSDEC's *Division Technical and Administrative Guidance Memorandum: Determination of Soil Cleanup Objectives and Cleanup Levels HWR 4046* (TAGM 4046) was used for comparison to soil results. This document does not include soil cleanup objectives for dioxins and furans. Therefore, for the purposes of this report, and to be consistent with the previous investigation report for the site, 1 ppb (ug/kg) 2,3,7,8-TCDD equivalence has been used as the soil screening level. The NYSDEC has used 1 ppb (ug/kg) 2,3,7,8-TCDD equivalence as a remediation goal at other hazardous waste sites.

The soil cleanup objective listed in TAGM 4046 for PCP is 1 ppm (mg/kg) for protection of groundwater. Consistent with the *Preliminary Investigation Report* prepared for this site, this value has been adopted as a groundwater protection screening level for soil.

Division of Water Technical and Operational Guidance Series 1.1.1 (TOGS 1.1.1) was used for screening groundwater. The groundwater standard for total phenolic compounds listed in TOGS 1.1.1 is 1.0 ppb (ug/L). Here again, to be consistent with the *Preliminary Investigation Report*, and because PCP is the only phenolic compound detected in the groundwater at the site, a groundwater screening level of 1.0 ppb (ug/L) has been used.

Finally, 6NYCRR Part 700-705 lists a groundwater standard of 0.0007 ng/L (parts per trillion) for 2,3,7,8-TCDD. This value has been adopted as the groundwater screening level, with the other forms of dioxins and furans normalized to 2,3,7,8-TCDD using the USEPA's toxicity equivalence factors (TEFs).

3.2.1 Surface Soils

A total of nine (9) surface soils samples were collected and sent to the contract laboratory for analysis of SVOCs, dioxins, and metals. A summary of the analytical results is presented in **Table 2**.

SVOCs were randomly detected in five (5) of the nine (9) samples collected ranging in concentrations from 0.096 mg/kg (ppm) to 271.87 mg/kg (ppm) total SVOCs. None of the locations exhibited total SVOCs in excess of the TAGM 4046 guidance value of 500 mg/kg (ppm). Four (4) locations (SS-5, SS-6, SS-8 and SS-9), possessed an SVOC analyte at levels

above TAGM 4046 guidance values for individual analytes. The only SVOC that exceeded the guidance value at these locations was PCP. All three areas were located on the west side of the treatment plant. Detected levels of PCP ranged from 1.0 mg/kg (ppm) in SS-8 to 270 mg/kg (ppm) in SS-5 **(Figure 5)**. All four samples exceeded the screening level of 1.0 mg/kg (ppm) for the protection of groundwater.

PCP was also detected in SS-7 (0.096 mg/kg (ppm)) in the area west of the treatment plant at levels below the TAGM 4046 guidance value. PCP was not detected in any of the other surface samples collected. One potential explanation of the differences in concentrations from this remedial investigation and the Preliminary Investigation of PCP in surface soils is that PCP will readily break down by photochemical processes when exposed to the ultraviolet radiation in sunlight. The results of the surface soil samples collected during the Preliminary Investigation are included on **Table 2** and **Figure 7**.

Surface soil sample SS-5 possessed the highest concentrations of total SVOCs and PCP. This sample was collected from the western side of the treatment plant.

All surface soil samples collected were sent to the laboratory for analysis of metals. Background samples were collected in October 2002 at Camp Georgetown due to the proximity of the two sites and in accordance with the approved work plan. The background sample data collected from Camp Georgetown was averaged and the resulting averages were used to compare to the surface soil data collected at Camp Pharsalia. Zinc, nickel, iron, chromium and beryllium were detected above guidance values in all nine samples. These metals are not related to the treatment process and likely represent natural soil concentrations. Arsenic was detected slightly above guidance values in SS-1, SS-3, SS-6 and SS-7. These low concentrations most likely represent natural soil concentrations.

In addition, all nine (9) samples were sent for the analysis of dioxins. Although dioxins and furans were detected in all the samples, only four (4) samples (SS-5, SS-6, SS-8 and SS-9) possessed 2,3,7,8,-TCDD equivalence of above the 1.0 ug/kg (ppb) guidance value. This is consistent with the elevated concentrations of PCP detected in these locations.

3.2.2 Subsurface Soils

A total of fourteen (14) subsurface soil samples were collected from the area around the treatment plant. These samples were sent for laboratory analysis of SVOCs and dioxins. Laboratory results are summarized on **Table 3** and **Figure 8**.

Soil borings SB-1, SB-2 and SB-3 exhibited random SVOCs; however, no analytes were detected above TAGM 4046 guidance values for total SVOCs or individual analytes.

Concentrations ranged from 0.125 mg/kg (ppm) to 1.412 mg/kg (ppm) total SVOCs. Soil borings SB-8 through SB-13 and PMW-6A possessed concentrations of Bis(2ethylhexyl) phthalate below the TAGM 4046 guidance value of 50 ppm. PCP was not detected in any of the subsurface soil samples.

None of the 14 soil samples collected possessed a 2,3,7,8-TCDD equivalence greater than the 1.0 ug/kg (ppb) screening level. The equivalence concentrations ranged from 0.00000014 ug/kg (ppb) (SB-11 10-12 feet) to 0.002183 ug/kg (ppb) (SB-2 10-12 feet).

3.2.3 Groundwater

As described in **Section 2.4** three separate groundwater sampling events were conducted during the PI and the RI. The analytical results for all sampling events are summarized in **Figure 9**. The first sampling event was conducted during the preliminary investigation and the samples collected were sent for analysis of VOCs, SVOCs, metals and dioxins.

1998 PI Results

PMW-1, PMW-3 and PMW-5 all possessed minor concentrations of acetone below the TOGs 1.1.1 guidance values.

PMW-5 possessed estimated concentrations of Flourene, 2-methylnaphthalene and phenanthrene. No PCP was detected in any of the monitoring wells including PMW-5.

Aluminum, arsenic, manganese and thallium were detected in all five monitoring wells above TOGs 1.1.1 guidance values. None of these metals are related to the wood treatment process used at Camp Pharsalia and the concentrations detected in the monitoring wells could represent natural levels. Groundwater samples collected from PMW-1, PMW-2, PMW-4 and PMW-5 all possessed 2, 3, 7, 8-TCDD equivalence concentrations above the TOGS 1.1.1 0.0007 ng/L guidance value. Equivalence concentrations ranged from 0.19 ng/L in PMW-5 to 0.00245 in PMW-4.

The results of the PI groundwater sampling event are presented on **Table 4**.

December 2001 Results

The second groundwater sampling event was conducted in December 2001. Field sampling protocol was followed as described in the FSP and QAPP specific for this site. The groundwater samples collected were sent for laboratory analysis of SVOCs, pesticides and fuel oil method 310.34.

Fuel oil components, including diesel, were detected in PMW-1 at an estimated concentration of 1100 ug/L. PMW-1 is located southeast of the treatment plant.

Several SVOCs were detected in PMW-1, PMW-3 and PMW-5. None of the analytes detected were above TOGS 1.1.1 groundwater standards. No PCP was detected in any of the monitoring wells.

Heptaclor epoxide was detected above TOGS 1.1.1 guidance values in PMW-4 at 0.11 ug/L. PMW-4 is located west of the treatment plant.

Dioxins were not analyzed during this sampling event.

The results of the December 2001 sampling event are summarized on **Table 5**.

November 2002 Results

The third groundwater sampling event was conducted in November 2002. Groundwater samples collected were analyzed for SVOCs, dioxins and fuel oil via method 310.13, respectively. This method for fuel oil was used to attain lower laboratory method detection limits.

At the request of the NYSDEC additional samples were also collected from PMW-5 and PMW-6A and were filtered with an 0.45 micron in line filter. The filtered samples were analyzed for SVOCs, dioxins and fuel oil in an effort to determine if elevated contaminant concentrations could be attributed to suspended sediments or turbid water at the time of sample collection.

Diesel range organics were detected in PMW-3, (340 ug/L) PMW-5 filtered (290J ug/L), PMW-6A (140J ug/L) and PMW-6A filtered (190J ug/L).

Naphthalene was detected below TOGS 1.1.1 in PMW-1 (0.5J ug/L) and bis(2-ethylhexyl)phthalate was detected in all monitoring wells as well as the associated laboratory blanks. The presence of the bis(2-ethylhexyl)phthalate in the laboratory blanks suggests that it is a laboratory contaminant and does not actually exist at the site.

Dioxins were not detected in any of the on site monitoring wells above the 2,3,7,8-TCDD screening level of 0.0007 ng/L. Dioxins were present at very low levels in all samples collected except PMW-3 and PMW-6A filtered.

Filtering of the samples from PMW-5 and PMW-6A dropped dioxin congener concentrations slightly but more data would be necessary to definitively conclude if there is a direct correlation

between contaminant concentration and suspended sediments in water. The results of the November 2002 sampling event are summarized on **Table 6**.

3.3 Qualitative Human Health Exposure Assessment

Below is a summary of the QEA conducted by Shaw. The QEA is presented in its entirety in **Appendix D**.

3.3.1 Background

Exposure assessment is the process of identifying potential current and future receptors, and characterizing the nature of their contact with a chemical. A qualitative exposure assessment was performed for the Camp Pharsalia site in order to determine potential exposure pathways associated with current site conditions and to evaluate their potential significance.

3.3.2 Exposure Setting

The exposure setting is evaluated with respect to both current and potential future land uses of the site and surrounding area in order to aid in the identification of potential receptors, exposure points and exposure pathways.

Camp Pharsalia is a large complex of NYSDEC crew headquarters and an active NYDCS incarceration facility, situated in the town of South Plymouth, Chenango County, NY. The surrounding area is rural, generally consisting of farmland and undeveloped forest. Wood treatment operations were conducted at Camp Pharsalia between 1960 and 1977. The area of concern includes the former wood treatment plant and staging area, which is located immediately northwest of the former treatment plant.

3.3.3 Identification of Exposure Pathways

The exposure pathway is the route that the chemical takes from the source of the material to the receptor of concern. An exposure pathway has five elements:

- a contaminant source
- contaminant release and transport mechanisms
- a point of exposure
- a route of exposure

- a potential receptor

An exposure pathway is complete when all five elements of an exposure pathway are documented; a potential exposure pathway exists when any one or more of the five elements comprising an exposure pathway is possible, but not documented.

3.3.3.1 Source of Contamination

One of the work projects at Camp Pharsalia was the operation of a wood treatment facility and sawmill, which operated between 1960 and 1977. During this time, pentachlorophenol (PCP) was the primary chemical biocide used in treating lumber at the site. During the treatment process, PCP and No. 2 fuel oil were combined in the dip tanks. After treatment, poles were hoisted from the tank and allowed to drip over the tank for a period of time. Poles were then moved to outside the western end of the treatment plant and allowed to dry. They were then moved to a designated treated material storage area, located south of the treatment plant. Therefore, the sources of release to the environment are historical surficial spills of wood treatment products (PCP and fuel oil) to soil.

3.3.3.2 Fate and Transport

Contaminant release and transport mechanisms may carry contaminants from the source to points where individuals may be exposed. Chemical migration between media such as soil and groundwater is influenced by chemical parameters such as water solubility or molecular size or shape, in addition to the chemical and physical characteristics particular to a site's media. This section discusses information about the fate and transport of the source chemicals present at the site.

Pentachlorophenol

Pentachlorophenol is a moderately acidic substance, and thus its fate is strongly influenced by pH. At a neutral pH it is almost completely found in the ionized form, the pentachlorophenate anion, which is much more mobile than PCP (ATSDR, 2000). PCP has a low water solubility and a strong tendency to adsorb onto soil or sediment particles in the environment. Adsorption to soils and sediments is dependent on pH and organic content. Adsorption at a given pH increases with increasing organic content of soil or sediment. No adsorption occurs at pH values above 6.8 (ATSDR, 2000; Howard, 1991). Since it is expected that soils at the site are acidic (no pH data is available) and soils are low in organic content, (TOC is 0.043% in SB-11 (8-10') some adsorption is likely to occur, but it may be limited.

The ionized form of pentachlorophenol may be rapidly photolyzed by sunlight; PCP may also undergo biodegradation by microorganisms, animals, and plants, although degradation is

generally slow (Howard, 1991). Given that at expected pH conditions a portion of PCP will be present in the ionized form, photolysis may be an important degradation pathway at this site in shallow soils.

PCP has an octanol-water partition coefficient (Kow) of 100,000 (Howard, 1991), which indicates that it is lipid-soluble and therefore has a tendency to bioaccumulate in organisms. Bioaccumulation is largely pH-dependent, with considerable variation among species. Bioconcentration factors (BCFs) for PCP in aquatic organisms are generally under 1,000, but some studies have reported BCFs up to 10,000. BCFs, however, for earthworms in soil were 3.4-13 (ATSDR, 2000). Significant biomagnification of PCP in either terrestrial or aquatic foodchains, however, has not been demonstrated (ATSDR, 2000).

Pentachlorophenol products often contain impurities such as chlorophenols, dioxins, and furans. Once released to the environment, the chlorinated dibenzo-p-dioxins (CDDs) and dibenzofurans (CDFs), are persistent and generally adsorb to soil or sediment particles, due to their low water solubilities. Adsorption is generally the predominate fate process affecting these chemicals, with the potential for adsorption related to the organic carbon content. CDDs and CDFs may undergo degradation through biological action or by photolysis, with a half-life ranging from weeks to months. Photolysis and hydrolysis are generally not significant processes, however, as these compounds persist in the adsorbed phase (USEPA, 2002).

Due to their high adsorption rate, CDDs are not expected to leach from soil, although some leaching of disassociated forms of the compound may occur, especially at lower pHs (USEPA, 2002). Since the pH at site soils are not known but are not expected to be highly acidic, leaching of CDDs and CDFs is unlikely. Migration of CDD-contaminated soil may occur through erosion and surface runoff. Upon reaching surface waters, additional adsorption may occur due to the typically higher levels of organic matter content of sediments as compared to surface soils (ATSDR 2000). Volatilization from either subsurface soil or water is not expected to be a major transport pathway, although it may occur from surface soils (ATSDR, 2000). As with PCP and other lipophilic pesticides, CDDs and CDFs tend to bioaccumulate in exposed organisms, with BCFs for aquatic organisms ranging from 5,000 to 10,000 (Montgomery, 1996). Uptake from soil by plants can occur, although it is limited by the strong adsorption of these compounds to soils. BCFs in plants have been measured to be 0.0002, with most accumulation occurring in the roots with little translocated to the foliage (ATSDR, 2000). Terrestrial organisms may accumulate CDDs and CDFs as a result of direct ingestion and contact with soils.

At the Pharsalia site, PCP is expected to be adsorbed to soil organic matter content, although leaching may occur due to the expected pH (slightly acidic) and low organic matter content in site soils (TOCs of 0.043% in SB-11 [8-10']). However, leaching is most likely not occurring as there has been no PCP detected in any of the monitoring wells. Some photolysis of PCP from

surface soils can be expected. Uptake of PCP from soil by plants or terrestrial organisms may occur, but biomagnification is not expected. CDDs and CDFs are expected to be strongly sorbed to soil, as well as persistent. Leaching of these compounds is likely to be limited. Accumulation of these compounds in plants as a result of root uptake is unlikely to be significant, although absorption of CDDs and CDFs deposited on leaves as a result of windborne migration may occur. Accumulation in terrestrial organisms may occur as a result of soil ingestion.

Fuel Oil

At the site, PCP was mixed with No. 2 fuel oil for wood treatment application. Fuel oils are mixtures of numerous aliphatic and aromatic hydrocarbons. Individual components of fuel oil include n-alkanes, branched alkanes, benzene and alkylbenzenes, naphthalenes, and PAHs (ATSDR, 2000). Primary constituents identified in soil and/or groundwater at the site are PAHs. Soil adsorption, volatilization to air, and leaching potential depend on a PAH's individual chemical characteristics; however, as a class of compounds, they are generally insoluble in water, with a strong tendency to bind to soil or sediment particles. Some of the lighter-weight PAHs (such as naphthalene, acenaphthene, and phenanthrene) may volatilize from soil or groundwater into the air. Degradation may occur through photolysis, oxidation, biological action, and other mechanisms. Microbial degradation appears to be a major degradation pathway in soil (ATSDR, 2000).

As nonpolar, organic compounds, PAHs may be accumulated in aquatic organisms from water, soil, sediments, and food. BCFs vary among PAHs and receptor species, but in general, bioconcentration is greater for the higher molecular weight compounds than for the lower molecular weight compounds (ATSDR, 2000). BCFs for accumulation of PAHs by plants from soil are low, with values of 0.001 to 0.18 reported for total PAHs (ATSDR, 2000). Accumulation of PAHs from soil by terrestrial organisms is also limited, with BCF values for voles of 12 reported for phenanthrene and 31 for acenapthene.

At this site, PAHs, the primary fuel oil constituents of interest, are expected to be adsorbed to soil, with limited potential for leaching. Microbial degradation may occur, with other degradation processes less important in soil. Uptake of PAHs from soil by terrestrial organisms or plants may occur, but bioconcentration is expected to be limited.

3.3.3.3 Points of Exposure

The exposure point is a location where actual or potential human contact with a contaminated medium may occur. Analytical results for samples collected at Camp Pharsalia indicate that soil and groundwater have been impacted by numerous contaminants, including the following:

Pentachlorophenol (PCP);

- Polychlorinated dioxins (CDDs) and dibenzofurans (CDFs); and
- Fuel oil.

Analytical results from samples collected across the site indicate that contaminants have been identified in surface soils (0-2 inches bgs) northwest of the treatment plant and in subsurface soil samples collected beneath the treatment plant.

Groundwater samples showed low concentrations of a few semi-volatile organic compounds that were detected at estimated concentrations below the reporting limit. PCP was not detected in any groundwater sample.

Dioxins and furans were detected in the four wells in which they were analyzed (PMW-1, PMW-2, PMW-4, and PMW-5) during the PI completed in 1998.

The water supply well used by the facility is located at the site located approximately 250 feet northeast of the treatment plant. It was installed in bedrock at a depth of 300 feet below grade, as compared to the monitoring wells at the site that are screened at depths of 10 – 20 feet below grade. This well was previously sampled by New York State Department of Health in May 1998 and analyzed for VOCs, SVOCs, pesticides and PCBs, and metals. No volatiles, pesticides, PCP, or PCBs were detected, and does not appear to be impacted by the site. Sampling of this well in June 2001 and analysis for ketones and petroleum products and herbicides (including PCP), confirmed that this well was not impacted by fuel oil or PCP.

3.3.3.4 Potential Receptors and Exposure Routes

Exposure assessment includes a description of the potentially exposed persons who live, work, play, visit, or otherwise come to the site or surrounding environment. Consideration is given to the characteristics of the current populations (including sensitive subpopulations) as well as those of any potential future populations that may be exposed under any reasonable foreseeable future site activities and uses.

Camp Pharsalia is currently maintained as a NYSDEC management area and as a NYSDCS correctional facility, and is located in a heavily wooded, rural area. Inmates at Camp Pharsalia and NYSDEC employees conduct no activities in the impacted area. In fact, inmates have been instructed not to go in this area. This area is, however, currently accessible (i.e. no fence or gate limits access), nor are there any deed restrictions on the property that would restrict future land use. Therefore, the following receptors have been identified for the site under current and reasonable foreseeable future land use scenarios:

Current Use

- Adult inmates and staff at Camp Pharsalia (infrequent); and

Future Use

- Construction workers performing excavation activities
- NYSDEC Maintenance and Operations activities

The route of exposure is the manner in which a contaminant actually enters or contacts the body (i.e., ingestion, inhalation, dermal absorption). Based on the nature of the chemicals of potential concern, the types of media impacted at the site, and land use scenarios, the following exposure routes were identified:

- Incidental ingestion of and dermal contact with soil and groundwater, and the inhalation of particulate-bound contaminants.
- Direct contact with groundwater used as a future drinking water source. Routes of exposure include ingestion and dermal contact.

There is some potential for the uptake of site contaminants (PCP and dioxins) by terrestrial organisms that may then be consumed as game species. Terrestrial game likely to be hunted in this area would include species such as white-tailed deer and turkey. Both species consume vegetation; additionally, turkeys are opportunistic feeders that will also include invertebrates to their diet. Uptake by plants from soil is not expected to result in significant bioaccumulation in plants. In addition, the area of impact is small relative to the expected home range of these two species. White-tailed deer have a home range of 120 to 400 acres (Burnett et al. 2002), while turkey can have a home range of 1000 acres or more (North Caroline State University 1995). Any contribution of site-related contaminants to the body burden of these species is, therefore, expected to be insignificant.

3.3.4 Conclusions

Complete exposure pathways have been identified for potential current and future human receptors based on exposure to contaminated soil and groundwater, although such exposures are expected to be very infrequent. The impacted area (PCP and dioxins and furans) is located under the treatment plant and in a small area of surface soils west of the treatment plant.

Given the limited potential for exposure to soil and the relatively small size of the areas where concentrations exceed standards, potential site exposures are unlikely to pose a significant risk

to human health under current use. In addition, the soil standards are based on long-term exposure on a frequent basis. Actual exposures at this site are very infrequent, and not likely to occur over an extended period of time. Site concentrations may pose a significant risk in the future if site use were to change, resulting in increased exposure to the area of concern.

Groundwater concentrations of SVOCs from the recent round of sampling were all below either applicable groundwater criteria or standards (NYSDEC, 1998). The concentration of heptachlor epoxide at PMW-4 of 0.11 ug/L was above the groundwater standard of 0.03 ug/L. This pesticide was not detected in any other groundwater sample, nor is it known to be site-related. Concentrations of dioxins and furans at PMW-5 in 1999 (190 pg/L 2,3,7,8-TCDD equivalents) were higher than the groundwater standard of 0.7 pg/L 2,3,7,8-TCDD equivalents. However, PCP was not detected in this well in either round of sampling, making the origin of these compounds unclear. Since there is no use of shallow groundwater for drinking water purposes, the presence of dioxins and furans at PMW-5 does not pose a risk to human health under current use. Site groundwater concentrations may pose a significant risk in the future if shallow groundwater at the site were to be used for drinking water purposes.

4.0 CONCLUSIONS

Background

- The previous Preliminary Investigation Report determined that additional investigative activities were required around the wood treatment plant.
- This Remedial Investigation addresses the area of the treatment plant.

Site Specific Geology

- Overburden at the site consists of brown top soil underlain by glacial lodgement till, interspersed with sand lenses.

Site Specific Hydrogeology

- Depth to groundwater ranges from approximately three (3) to six (6) feet below ground surface (bgs).
- Groundwater appears to flow in a northwesterly direction.
- Recharge of the water table is likely provided by precipitation infiltrating areas of the site.

Nature and Extent of Contamination

Surface Soils

- Nine (9) surface soil samples were collected and analyzed for SVOCs, dioxins and metals.
- SVOCs were randomly detected in five (5) of the nine (9) samples ranging in concentration from of 96 ug/kg to 271,870 ug/kg.
- PCP was detected above TAGM 4046 guidance values in SS-5, SS-6, SS-8 and SS-9, which were installed west of the treatment plant.
- SS-5 exhibited the highest total SVOC and PCP concentrations.
- Metal results were compared to the background soil samples collected in October 2002 at Camp Georgetown. Zinc, nickel, iron, chromium and beryllium were the most frequently detected metals and were detected in all of the surface soil samples.
- Dioxins and furans were detected in all of the surface soil samples.
- SS-5, SS-6, SS-8 and SS-9 exhibited dioxin concentrations above the 1.0 ppb 2,3,7,8-TCDD equivalence screening level.

- The area west of the treatment plant is contaminated with PCP and dioxins to a depth of at least 6 inches based on surface soil results from the PI and RI. **Figure 7** includes an outlined area of contamination.
- Metals exceedences most likely represent natural soil concentrations as they are not related to wood treatment activities.
- A total volume of 20 cubic yards of surface soil to a depth of 4 inches is anticipated to be contaminated.

Subsurface Soils

- Fourteen (14) subsurface soil samples were collected and analyzed for SVOCs and dioxins.
- PCP was detected above TAGM 4046 guidance values in the soil samples collected beneath the treatment plant during the PI.
- Dioxins and furans were detected above the 1.0 ppb 2,3,7,8-TCDD equivalence screening level in the soil samples collected beneath the treatment plant during the PI.
- The area beneath the treatment plant is contaminated with PCP and dioxins to a depth of at least 4 feet based on the subsurface soil results from the PI. **Figure 8** includes an outlined area of contamination.
- A total volume of 110 cubic yards of subsurface soil to a depth of 4 feet is anticipated to be contaminated.

Groundwater

- Based on the results of the three (3) groundwater sampling events, fuel oil components exist in monitoring wells PMW-5 and PMW-6.
- No PCP was detected in any of the monitoring wells during any sampling event.
- Based on the most recent groundwater sampling event (November 2002), groundwater in the area of the treatment plant is not impacted with PCP or dioxin.

Water Supply Wells

- No evidence of PCP or dioxins were detected in any of the supply wells which are screened in bedrock, located away from the treatment plant, and sampled by the NYSDOH.

Qualitative Exposure Assessment

- Sources of contamination to the environment exist at the site and are associated with historical releases and surficial spills of wood treatment products.
- Contaminants of concern include PCP, fuel oil and dioxins.

- Points of exposure include surficial soil and groundwater.
- Exposure routes were identified under current land use conditions
- Based on the exposure routes and limited access to the affected area, inmates and staff at Camp Pharsalia do not have significant exposure risk based on current land use.

5.0 RECOMMENDATIONS

- The existing treatment plant should be removed and disposed of.
- A feasibility study should be completed for further remedial action at this site.

6.0 REFERENCES

- *Preliminary Investigation Report*; Camp Pharsalia, New York State Department of Environmental Conservation, Division of Environmental Remediation; August 1999.
- Division Technical and Administrative Guidance Memorandum; Determination of Soil Cleanup Objectives and Cleanup Levels HWR 4046, New York State Department of Environmental Conservation; January 1994.
- Division of Water Technical and Operational Guidance Series (1.1.1); Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, New York State Department of Environmental Conservation; June 1998.
- Qualitative Human Health Exposure Assessment for the Camp Pharsalia Site; Shaw Environmental, Inc., December 2002.

TABLES

Table 1
Sample Summary Table
Remedial Investigation

Groundwater Existing Wells			
Location	Fuel Oil	SVOC	Pest/PCB
Analytical Method	310-34/310-13	8270	8080
PMW-1	1	1	1
PMW-2	1	1	1
PMW-3	1	1	1
PMW-4	1	1	1
PMW-5	1	1	1
PMW-6A	1	1	0

Surface Soil Samples			
Location	SVOC	Metals	Dioxin
Analytical Method	8270	TAL	8290/8280
SS-1	1	1	1
SS-2	1	1	1
SS-3	1	1	1
SS-4	1	1	1
SS-5	1	1	1
SS-6	1	1	1
SS-7	1	1	1
SS-8	1	1	1
SS-9	1	1	1

Soil Boring Samples		
Location	SVOC	Dioxin
Analytical Method	8270	8290/8280
SB-1	1	1
SB-2	1	1
SB-3	1	1
SB-4	1	1
SB-5	1	1
SB-6	1	1
SB-7	1	1
SB-8	1	1
SB-9	1	1
SB-10	1	1
SB-11	1	1
SB-12	1	1
SB-13	1	1
PMW-6A	1	1

Table 2
Surface Soil Sample Analytical Results
Camp Pharsalia

Analyte *(Units)*	TAGM	SS-1	SS-2	SS-3	SS-4	SS-5	SS-6	SS-7	SS-8	SS-9	PSS-1	PSS-2	PSS-3	PSS-4	PSS-5
SVOC *(mg/kg)*															
Bis (2-ethylhexyl) phthalate	50	<0.33	<0.33	<5.9	<1.65	<5.9	**0.17 J**	<0.33	<0.33	<1.65	-	-	-	-	-
Chrysene	0.4	<0.33	<0.33	<4.0	<1.65	**0.26 J**	<1.65	<0.33	<0.33	<1.65	-	-	-	-	-
Di-n-butyl phthalate	8.1	<0.33	<0.33	<4.0	<1.65	<3.5	<0.33	<0.33	**0.044 J**	<1.65	-	-	-	-	-
Fluoranthene	50	<0.33	<0.33	<5.9	<1.65	**0.31 J**	**0.12 J**	<0.33	<0.33	<0.33	-	-	-	-	-
Pentachlorophenol	1	<1.6	<1.6	<16	<80	**270 D**	**70 D**	**0.096 J**	**1.0 J**	**7.8**	**550**	**10**	**25**	**0.74**	**1.9**
Pyrene	50	<0.33	<0.33	<5.9	<1.65	**1.3**	**0.57 J**	<0.33	<0.33	<1.65	-	-	-	-	-
Total SVOC		BDL	BDL	BDL	BDL	**271.87 J**	**70.86 J**	**0.096 J**	**1.044 J**	**7.8**	-	-	-	-	-
Metals *(mg/kg)*	**Background**	**SS-1**	**SS-2**	**SS-3**	**SS-4**	**SS-5**	**SS-6**	**SS-7**	**SS-8**	**SS-9**	-	-	-	-	-
Aluminum	135200	**11800 J**	**12300 J**	**11000 J**	**12400 J**	**9960 J**	**13700 J**	**14100 J**	**14400 J**	**12500 J**	-	-	-	-	-
Antimony	0.974	**1.8 B**	**1.1 B**	**1.4 B**	**0.94 B**	**1.0 B**	**1.3 B**	**0.97 B**	**1.1 B**	**1.5 B**	-	-	-	-	-
Arsenic	8.04	**8.5**	**7.5**	**9**	**7.5**	**5**	**10.3**	**7.7**	**7.4**	**3.8**	-	-	-	-	-
Barium	40.82	**67.9 J**	**62.2 J**	**58.0 J**	**67.6 J**	**52.8 J**	**85.0 J**	**67.2 J**	**79.5 J**	**74.6 J**	-	-	-	-	-
Berillium	0.45	**0.52 B**	**0.41 B**	**0.41 B**	**0.47 B**	**0.36 B**	**0.54 B**	**0.49 B**	**0.53 B**	**0.49 B**	-	-	-	-	-
Cadmium	U	**0.18 B**	<0.03	<0.04	**0.10 B**	<0.03	<0.04	**0.26 B**	<0.03	<0.03	-	-	-	-	-
Calcium	430	**1570 J**	**636 J**	**2680 J**	**1070 J**	**755 J**	**1190 J**	**544 B**	**916 J**	**967 J**	-	-	-	-	-
Chromium	17.44	**15.1 J**	**14.6 J**	**14.2 J**	**15.9 J**	**13.7 J**	**18.4 J**	**16.4 J**	**19.4 J**	**16.8 J**	-	-	-	-	-
Cobalt	9.74	**10.9 J**	**11.2 J**	**10.6 J**	**12.6 J**	**8.2 J**	**13.7 J**	**13.1 J**	**12.9 J**	**11.6 J**	-	-	-	-	-
Copper	13.32	**23.1 J**	**18.4 J**	**36.7 J**	**119 J**	**80.4 J**	**79.2 J**	**57.7 J**	**50.4 J**	**139 J**	-	-	-	-	-
Iron	26060	**25300 J**	**25800 J**	**24100 J**	**28800 J**	**23400 J**	**31800 J**	**26500 J**	**33600 J**	**29900 J**	-	-	-	-	-
Lead	10.42	**20.8 J**	**17.7 J**	**20.6 J**	**22.2 J**	**41.9 J**	**77.2 J**	**50.8 J**	**38.2 J**	**145 J**	-	-	-	-	-
Magnesium	3532	**3510 J**	**3240 J**	**3620 J**	**4230 J**	**3440 J**	**4660 J**	**3150 J**	**4980 J**	**4310 J**	-	-	-	-	-
Manganese	298.2	**805 J**	**947 J**	**558 J**	**807 J**	**253 J**	**960 J**	**740 J**	**692 J**	**698 J**	-	-	-	-	-
Nickel	22.94	**22.8 J**	**22.2 J**	**23.9 J**	**29.0 J**	**21.3 J**	**30.2 J**	**21.5 J**	**32.2 J**	**28.0 J**	-	-	-	-	-
Potassium	626.6	**860 J**	**718 J**	**820 J**	**670 J**	**775 J**	**1060 J**	**718 J**	**906 J**	**760 J**	-	-	-	-	-
Selenium	1.3	**1.6**	**1**	**1.1**	**1.1**	**1.1**	**1.4**	**1.6**	**1.6**	**1.3**	-	-	-	-	-
Silver	U	**0.41 B**	**0.17 B**	<0.11	<0.10	<0.10	<0.11	<0.12	<0.10	<0.10	-	-	-	-	-
Mercury	0.0158	**0.064**	**0.028 B**	<0.021 B	**0.008 B**	**0.016 B**	**0.011 B**	**0.037 B**	**0.012 B**	**0.011 B**	-	-	-	-	-
Sodium	38.34	**50.4 B**	**40.0 B**	**73.3 B**	**44.9 B**	<29.6	**45.4 B**	<37.0	**61.9 B**	**43.5 B**	-	-	-	-	-
Thallium	U	<0.61 J	<0.59 J	<0.63 J	<0.55 J	<0.57 J	<0.61 J	<0.70 J	<0.58 J	<0.60 J	-	-	-	-	-
Vanadium	17.6	**15.0 J**	**15.9 J**	**15.3 J**	**14.0 J**	**11.9 J**	**16.7 J**	**18.4 J**	**17.2 J**	**16.1 J**	-	-	-	-	-
Zinc	53.66	**57.1 J**	**53.8 J**	**56.6 J**	**61.9 J**	**49.4 J**	**69.5 J**	**64.0 J**	**72.3 J**	**59.9 J**	-	-	-	-	-
Dioxins *(ng/g)*	**TEF's**	**SS-1**	**SS-2**	**SS-3**	**SS-4**	**SS-5**	**SS-6**	**SS-7**	**SS-8**	**SS-9**	-	-	-	-	-
Total TCDF		**0.001 J**	**0.00092**	**0.014**	**0.037**	<0.15	<0.29	**0.021**	<0.087	<0.13	-	-	-	-	-
Total PeCDF		**0.31 J**	**0.031**	**0.2**	**0.59**	<0.59	**2.1 J**	**3.4**	<0.75	**1.3 J**	-	-	-	-	-
TotalHxCDF		**0.49 J**	**0.43**	**2.2**	**6.3**	**47 J**	**25 J**	**7.9**	**14 J**	**24 J**	-	-	-	-	-
Total HpCDF		**1.9 J**	**1.5**	**7**	**24 J**	**270 J**	**130 J**	**53**	**66**	**100 J**	-	-	-	-	-
Total TCDD		**0.001 J**	**0.0016**	**0.0086**	**0.0088**	<0.027	<0.053	**0.015**	<0.037	<0.050	-	-	-	-	-
Total PeCDD		**0.019 J**	**0.0083**	**0.083**	**0.15**	<0.48	<0.51	**0.2**	<0.49	<0.76	-	-	-	-	-
Total HxCDD		**0.49 J**	**0.36**	**1.4**	**3.7**	**30 J**	**19 J**	**4.1**	**10 J**	**18 J**	-	-	-	-	-
Total HpCDD		**5 J**	**3.3**	**15**	**47**	**730 J**	**560 J**	**44**	**220 J**	**350 J**	-	-	-	-	-
2,3,7,8-TCDD	1	**0.0011 J**	**0.00083 J**	**0.0028**	**0.0035**	<0.027	<0.053	**0.0065**	<0.037	<0.050	-	-	-	-	-
1,2,3,7,8-PeCDD	0.5	**0.01 J**	**0.0083**	**0.032**	**0.056**	<0.48	<0.51	**0.1**	<0.49	<0.76	-	-	-	-	-
1,2,3,4,7,8-HxCDD	0.1	**0.029 J**	**0.021 J**	**0.068 J**	**0.18 J**	**0.72 J**	**0.70 J**	**0.25 J**	<0.62	**1.1 J**	-	-	-	-	-
1,2,3,6,7,8-HxCDD	0.1	**0.12 J**	**0.099**	**0.39**	**1.2**	**13 J**	**7.2 J**	**1.3**	**3.7 J**	**5.8 J**	-	-	-	-	-
1,2,3,7,8,9-HxCDD	0.1	**0.074 J**	**0.056 J**	**0.2 J**	**0.44 J**	**2.1 J**	**1.8 J**	**0.59 J**	**1.4 J**	**2.5 J**	-	-	-	-	-
1,2,3,4,6,7,8-HpCDD	0.01	**3.2 E J**	**2.1**	**9.3 EJ**	**30 D**	**520 EJ**	**370 EJ**	**28.0 D**	**150 EJ**	**230 EJ**	-	-	-	-	-
OCDD	0.0001	**23.0 E J**	**13.0 EJ**	**58.0 EJ**	**210 DEJ**	**2500 EJ**	**1700 EJ**	**170.0 D**	**600 EJ**	**870 EJ**	-	-	-	-	-
2,3,7,8-TCDF	0.1	<0.05 J	**0.00092 JCON**	**0.0037 CON**	**0.011 CON**	<0.15	<0.29	**0.0043 CON**	<0.087	<0.13	-	-	-	-	-
1,2,3,7,8-PeCDF	0.05	**0.0039 J**	**0.0052 J**	**0.025**	**0.066**	<0.34	<0.18	**0.031**	<0.35	<0.40	-	-	-	-	-
2,3,4,7,8-PeCDF	0.5	**0.0031 J**	<0.0029	**0.015**	**0.047**	<0.33	<0.17	**0.024**	<0.35	<0.39	-	-	-	-	-
1,2,3,4,7,8-HxCDF	0.1	**0.018 J**	**0.021**	**0.1**	**0.24**	**1.2 J**	**0.78 J**	**0.4**	<0.55	**0.87 J**	-	-	-	-	-
1,2,3,6,7,8-HxCDF	0.1	**0.012 J**	**0.012**	**0.057**	**0.11**	<0.42	<0.29	**0.16**	<0.29	<0.49	-	-	-	-	-
2,3,4,6,7,8-HxCDF	0.1	**0.0071 J**	**0.0083**	**0.045**	**0.086**	**1.1 J**	**0.78 J**	**0.11**	<0.46	**1.0 J**	-	-	-	-	-
1,2,3,7,8,9-HxCDF	0.1	<0.0013 J	<0.002	**0.0079**	**0.02**	<0.14	<0.067	**0.0095**	<0.12	<0.17	-	-	-	-	-
1,2,3,4,6,7,8-HpCDF	0.01	**0.51 J**	**0.37**	**1.7**	**5.3 DJ**	**50 EJ**	**27 J**	**12.0 D**	**16 J**	**25 J**	-	-	-	-	-
1,2,3,4,7,8,9-HpCDF	0.01	**0.037 J**	**0.029**	**0.13**	**0.36 DJ**	**3.4 J**	**2 J**	**0.78 D**	**0.99 J**	**1.6 J**	-	-	-	-	-
OCDF	0.0001	**1.9 J**	**1.3**	**6.5 EJ**	**20.0 D**	**450 EJ**	**100 EJ**	**53.0 D**	**56 EJ**	**81 EJ**	-	-	-	-	-
2,3,7,8-TCDD Equivalance	1.0	**0.073815 JE**	**0.053482 JECON**	**0.23246 ECON**	**0.6666 DECON**	**7.841 EJ**	**5.296 EJ**	**0.78253 DCON**	**2.2455 EJ**	**3.7881 EJ**	-	-	-	-	-

Notes:
*PSS results from PIR PCP Immunoassay Results
Bold Text=Analyte detected above laboratory method detection limit
Shaded Text=Exceedence of TAGM soil cleanup objectives to protect groundwater quality
Only analytes detected at or above laboratory method detection limits included on tables

SVOC Data Qualifiers:
All results in mg/kg
<U=Analyte was not detected above laboratory detection limits
J=Estimated Value
B=Analyte was found in method blank as well as the sample

Dioxins Data Qualifiers
All results in ng/g
D=Result obtained from dilution
J=Estimated result, result is less than the reporting limit
E=Estimated result, result exceeds calibration range
CON=Confirmation analysis

Metals Data Qualifiers:
All results in mg/kg
B=Indicates a value greater than or equal to the instrument detection limit but less than the quantitation limit
J=Estimated result, result is less than the reporting limit

Table 3
Subsurface Soil Boring Analytical Results
Camp Pharsalia

Analyte *(Units)*	TAGM	SB-1 10-12'	SB-2 10-12'	SB-3 10-12'	SB-4 6-8'	SB-5 8-10'	SB-6 4-6'	SB-7 2-4'	SB-8 6-8'	SB-8 10-12'	SB-9 8-10'	SB-9 12-14'	SB-10 12-14'	SB-10 14-16'	SB-11 10-12'	SB-12 4-6'	SB-12 12-14'	SB-13 8-10'	SB-13 12-14'	PMW-6A 6-8'	PMW-6A 12-14'	PB-1 0-4'	PB-2 0-4'	PB-3 0-4'	PB-4 0-4'	PB-6 0-4'	PB-7 0-2'	PB-11 0-2'	PTP-1 10'x2'x8'	PTP-2 11'x2'x7'	PTP-3 12'x2'x7'	PTP-4 11'x2'x7'	PTP-5 12'x2'x9'	PTP-6 12'x2'x8'	PTP-7 9'x2'x6'	PTP-8 11'x2'x6'	PTP-9 10'x2'x10'
SVOC *(mg/kg)*																																					
Acenaphthene	50	<0.33	**0.13 J**	**0.046 J**	<0.33	<0.33	<0.33	<0.33	<0.38	<0.38	<0.37	<0.37	<0.38	<0.37	<0.36	<0.37	<0.35	<0.39	<0.37	0.38	<0.39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bis(2-ethylhexyl)Phthalate	50	-	-	-	-	-	-	-	**0.055 J**	<0.38	**0.023 J**	**0.021 J**	**0.048 J**	**0.13 J**	**0.035 J**	<0.37	**0.053 J**	**0.074 J**	<0.37	**0.024 J**	**0.031 J**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	6.2	<0.33	**0.081 J**	**0.039 J**	<0.33	<0.33	<0.33	<0.33	<0.38	<0.38	<0.37	<0.37	<0.38	<0.37	<0.36	<0.37	<0.35	<0.39	<0.37	<0.38	<0.39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-butyl phthalate	8.1	<0.33	**0.075 J**	<0.33	<0.33	<0.33	<0.33	<0.33	<0.38	<0.38	<0.37	<0.37	<0.38	<0.37	<0.36	<0.37	<0.35	<0.39	<0.37	<0.38	<0.39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluorene	50	**0.025 J**	**0.3 J**	**0.15 J**	<0.33	<0.33	<0.33	<0.33	<0.38	<0.38	<0.37	<0.37	<0.38	<0.37	<0.36	<0.37	<0.35	<0.39	<0.37	<0.38	<0.39	-	-	-	**3000 JD**	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	36.4	<0.33	**0.14 J**	**0.019 J**	<0.33	<0.33	<0.33	<0.33	<0.38	<0.38	<0.37	<0.37	<0.38	<0.37	<0.36	<0.37	<0.35	<0.39	<0.37	<0.38	<0.39	-	-	-	**8100 D**	-	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	1	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.94	<0.94	<0.92	<0.92	<0.96	<0.92	<0.91	<0.92	<0.89	<0.97	<0.92	<0.96	<0.97	**111**	**330**	**128**	**82**	**0.16**	**0.24**	**0.22**	**ND**	**0.14**	**0.18**	**0.2**	**0.22**	**ND**	**0.16**	**0.19**	**56**
Phenanthrene	50	**0.1 J**	**0.64**	**0.4**	<0.33	<0.33	<0.33	<0.33	<0.38	<0.38	<0.37	<0.37	<0.38	<0.37	<0.36	<0.37	<0.35	<0.39	<0.37	<0.38	<0.39	-	-	-	**6300 D**	-	-	-	-	-	-	-	-	-	-	-	-
Pyrene	50	<0.33	**0.046 J**	**0.018 J**	<0.33	<0.33	<0.33	<0.33	<0.38	<0.38	<0.37	<0.37	<0.38	<0.37	<0.36	<0.37	<0.35	<0.39	<0.37	<0.38	<0.39	-	-	-	**1800 JD**	-	-	-	-	-	-	-	-	-	-	-	-
Total SVOCs		**0.125 J**	**1.412 J**	**0.672 J**	BDL	BDL	BDL	BDL	**0.055 J**	BDL	**0.023 J**	**0.021 J**	**0.048J**	**0.13 J**	**0.035 J**	BDL	**0.053 J**	**0.074 J**	BDL	**0.024 J**	**0.031 J**	-	-	-	**101.2**	-	-	-	-	-	-	-	-	-	-	-	-
Dioxins *(ng/g)*	TEF's	**SB-1**	**SB-2**	**SB-3**	**SB-4**	**SB-5**	**SB-6**	**SB-7**	**SB-8**	**SB-8**	**SB-9**	**SB-9**	**SB-10**	**SB-10**	**SB-11**	**SB-12**	**SB-12**	**SB-13**	**SB-13**	**PMW-6A**	**PMW-6A**	**PB-1**	**PB-2**	**PB-3**	**PB-4**	**PB-6**	**PB-7**	**PB-11**	**PTP-1**	**PTP-2**	**PTP-3**	**PTP-4**	**PTP-5**	**PTP-6**	**PTP-7**	**PTP-8**	**PTP-9**
Total TCDF		<0.0003	<0.00036	<0.00029	<0.00027	<0.00019	<0.00025	<0.00052	<0.00003	<0.00002	<0.00002	<0.00002	<0.00001	<0.00001	<0.00011	<0.00002	<0.00001	<0.00002	<0.00001	<0.00002	<0.00002	-	**0.136**	**0.0988**	**0.255**	-	-	-	-	-	-	-	-	-	-	-	-
Total PeCDF		<0.0003	<0.00058	<0.00056	<0.00022	<0.0002	<0.0004	<0.00084	<0.00031	<0.00004	<0.00004	<0.00005	<0.00004	<0.00007	<0.00012	<0.00005	<0.00004	<0.00007	<0.00003	<0.00007	<0.00009	-	**1.89**	**1.38**	**4.4**	-	-	-	-	-	-	-	-	-	-	-	-
TotalHxCDF		<0.00096	**0.022**	**0.014**	<0.00076	<0.0023	<0.0017	<0.0016	<0.00003	<0.00002	<0.00002	<0.00002	<0.00002	>0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00003	-	**23.3**	**18**	**43.1**	-	-	-	-	-	-	-	-	-	-	-	-
Total HpCDF		**0.0052**	**0.15**	**0.12**	**0.0039**	**0.019**	**0.0066**	**0.013**	<0.00004	<0.00003	<0.00005	<0.00002	<0.00004	<0.00003	<0.00003	<0.00005	<0.00016	<0.00005	<0.00005	<0.00003	<0.00004	-	**83.4**	**80**	**126**	-	-	-	-	-	-	-	-	-	-	-	-
Total TCDD		<0.00026	<0.00058	<0.0004	<0.00016	<0.00013	<0.00036	**0.018**	<0.00004	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00003	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	-	**0.00184**	**0.00149**	**0.00103**	-	-	-	-	-	-	-	-	-	-	-	-
Total PeCDD		<0.0015	<0.00079	<0.002	<0.00068	<0.00036	<0.00081	**0.014**	<0.00019	<0.00008	<0.00003	<0.00004	<0.00004	<0.00007	<0.00010	<0.00005	<0.00005	<0.00004	<0.00003	<0.00004	<0.00003	-	**0.0221**	**0.0497**	**0.0472**	-	-	-	-	-	-	-	-	-	-	-	-
Total HxCDD		<0.00057	**0.012**	**0.0083**	<0.00068	<0.00085	<0.00069	**0.0035**	<0.00010	<0.00004	<0.00003	<0.00006	<0.00004	<0.00003	<0.00004	<0.00003	<0.00003	<0.00005	<0.00004	<0.00003	<0.00003	-	**7.15**	**5.83**	**8.2**	-	-	-	-	-	-	-	-	-	-	-	-
Total HpCDD		**0.015**	**0.18**	**0.15**	**0.013**	**0.031**	**0.017**	**0.023**	<0.00012	<0.00004	<0.00007	<0.00004	<0.00003	<0.00004	<0.00005	<0.00004	<0.00004	<0.00014	<0.00004	<0.00004	<0.00004	-	**141**	**99.2**	**136**	-	-	-	-	-	-	-	-	-	-	-	-
2,3,7,8-TCDD	1	<0.00026	<0.00058	<0.0004	<0.00016	<0.00013	<0.0036	<0.00064	<0.00004	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00003	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	-	**0.00037**	**0.00049**	**0**	-	-	-	-	-	-	-	-	-	-	-	-
1,2,3,7,8-PeCDD	0.5	<0.0015	<0.00079	<0.002	<0.00068	<0.00036	<0.00081	<0.0016	<0.00019	<0.00008	<0.00003	<0.00004	<0.00003	<0.00007	<0.00010	<0.00005	<0.00005	<0.00004	<0.00003	<0.00004	<0.00003	-	**0.0106**	**0.0249**	**0.0228**	-	-	-	-	-	-	-	-	-	-	-	-
1,2,3,4,7,8-HxCDD	0.1	<0.00029	<0.00067	<0.00066	<0.00016	<0.00014	<0.00065	<0.00094	<0.00010	<0.00004	<0.00004	<0.00006	<0.00004	<0.00002	<0.00004	<0.00003	<0.00003	<0.00005	<0.00004	<0.00003	<0.00003	-	**0.1**	**0.142**	**0.135**	-	-	-	-	-	-	-	-	-	-	-	-
1,2,3,6,7,8-HxCDD	0.1	<0.00037	**0.0061**	**0.0043 J**	<0.00047	<0.00085	<0.00069	<0.0012	<0.00008	<0.00003	<0.00003	<0.00005	<0.00003	<0.00002	<0.00003	<0.00003	<0.00003	<0.00004	<0.00003	<0.00003	<0.00003	-	**3.19**	**2.48**	**3.91**	-	-	-	-	-	-	-	-	-	-	-	-
1,2,3,7,8,9-HxCDD	0.1	<0.00027	<0.0027	<0.0013	<0.00026	<0.00024	<0.00064	<0.00092	<0.00008	<0.00003	<0.00003	<0.00005	>0.00004	<0.00003	<0.00004	<0.00003	<0.00003	<0.00004	<0.00003	<0.00003	<0.00003	-	**0.2**	**0.284**	**0.271**	-	-	-	-	-	-	-	-	-	-	-	-
1,2,3,4,6,7,8-HpCDD	0.01	**0.0098**	**0.12**	**0.099**	**0.008**	**0.019**	**0.012**	**0.017**	<0.00012	<0.00004	<0.00007	<0.00004	<0.00004	<0.00004	<0.00005	<0.00004	<0.00004	<0.00014	<0.00004	<0.00004	<0.00004	-	**90.5**	**63.9**	**89.1**	-	-	-	-	-	-	-	-	-	-	-	-
OCDD	0.0001	**0.063**	**0.55**	**0.5**	**0.05**	**0.16**	**0.045**	**0.042**	**0.00022 J**	<0.00003	<0.00004	<0.00004	<0.00003	<0.00003	**0.00014 JS**	<0.00003	<0.00003	<0.00003	<0.00005	<0.00003	<0.00003	-	**815**	**518**	**693**	-	-	-	-	-	-	-	-	-	-	-	-
2,3,7,8-TCDF	0.1	<0.0003	<0.00036	<0.00029	<0.00027	<0.00019	<0.00025	<0.00052	<0.00002	<0.00002	<0.00002	<0.00002	<0.00001	<0.00001	<0.00011	<0.00002	<0.00001	<0.00002	<0.00001	<0.00002	<0.00002	-	**0.0564**	**0.0395**	**0.135**	-	-	-	-	-	-	-	-	-	-	-	-
1,2,3,7,8-PeCDF	0.05	<0.00024	<0.00058	<0.00056	<0.00015	<0.00014	<0.0004	<0.00079	<0.00031	<0.00004	<0.00004	<0.00005	<0.00004	<0.00007	<0.00012	<0.00005	<0.00004	<0.00007	<0.00003	<0.00007	<0.00009	-	**0.36**	**0.241**	**0.863**	-	-	-	-	-	-	-	-	-	-	-	-
2,3,4,7,8-PeCDF	0.5	<0.00024	<0.00056	<0.00056	<0.00015	<0.00014	<0.0004	<0.00079	<0.00030	<0.00004	<0.00004	<0.00004	<0.00005	<0.00004	<0.00007	<0.00011	<0.00005	<0.00004	<0.00007	<0.00003	<0.00007	<0.00009	-	**0.25**	**0.179**	**0.577**	-	-	-	-	-	-	-	-	-	-	-	-
1,2,3,4,7,8-HxCDF	0.1	<0.00016	<0.0011	<0.0012	<0.00017	<0.0002	<0.00049	<0.001 J	<0.00002	<0.00002	<0.00002	<0.00002	<0.00001	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	-	**1.17**	**0.821**	**2.65**	-	-	-	-	-	-	-	-	-	-	-	-
1,2,3,6,7,8-HxCDF	0.1	<0.00028	<0.00092	<0.00046	<0.00017	<0.000075	<0.00043	<0.00087 J	<0.00003	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	-	**0.38**	**0.308**	**0.837**	-	-	-	-	-	-	-	-	-	-	-	-
2,3,4,6,7,8-HxCDF	0.1	<0.00017	<0.0011	<0.0007	<0.00018	<0.000084	<0.00054	<0.0011 J	<0.00003	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00003	-	**0.116**	**0.0681**	**0.241**	-	-	-	-	-	-	-	-	-	-	-	-
1,2,3,7,8,9-HxCDF	0.1	<0.00018	<0.0012	<0.0033	<0.0002	<0.00009	<0.00057	<0.0012 J	<0.00003	<0.00002	<0.00002	<0.00002	<0.00001	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	-	**0.281**	**0.201**	**0.591**	-	-	-	-	-	-	-	-	-	-	-	-
1,2,3,4,6,7,8-HpCDF	0.01	<0.0016	**0.03**	**0.024**	<0.002	**0.0037 J**	<0.0022	**0.0034 J**	<0.00003	<0.00003	<0.00005	<0.00002	<0.00004	<0.00002	<0.00003	<0.00004	<0.00013	<0.00004	<0.00004	<0.00003	<0.00004	-	**17.8**	**15.7**	**28.2**	-	-	-	-	-	-	-	-	-	-	-	-
1,2,3,4,7,8,9-HpCDF	0.01	<0.00093	<0.002	<0.0038	<0.00046	<0.0046	<0.0006	<0.00083	<0.00004	<0.00003	<0.00005	<0.00002	<0.00004	<0.00003	<0.00003	<0.00005	<0.00016	<0.00005	<0.00005	<0.00003	<0.00004	-	**1.3**	**1.03**	**2.04**	-	-	-	-	-	-	-	-	-	-	-	-
OCDF	0.0001	**0.0077 J**	**0.18**	**0.16**	**0.0056 J**	**0.021**	**0.0073 J**	**0.011 J**	<0.00003	<0.00002	<0.00003	<0.00003	<0.00002	<0.00004	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	-	**78.1**	**82.7**	**102**	-	-	-	-	-	-	-	-	-	-	-	-
2,3,7,8-TCDD Equivalance	1.0	**0.000105 J**	**0.002183**	**0.001726**	**0.0000856 J**	**0.000245 J**	**0.000125 J**	**0.000209 J**	**0.000000022 J**	BDL	BDL	BDL	BDL	BDL	**0.000000014 JS**	BDL	BDL	BDL	BDL	BDL	BDL	-	**2.7**	**1.9**	**3.32**	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
*PB results from PIR PCP Immunoassay Results
Bold Text=Analyte detected above laboratory method detection limit
Shaded Text=Exceedence of TAGM soil cleanup objectives to protect groundwater quality
Only analytes detected at or above laboratory method detection limits included on tables

Dioxins Data Qualifiers:
All results in ng/g
D=Result obtained from dilution
J=Estimated result, result is less than the reporting limit
E=Estimated result, result exceeds calibration range
CON=Confirmation analysis

SVOC Data Qualifiers:
All results in mg/kg
<U=Analyte was not detected above laboratory detection limits
J=Estimated Value
B=Analyte was found in method blank as well as the sample

Table 4
Preliminary Investigation Groundwater Sampling Event Analytical Results
Camp Pharsalia

Analyte (Units)	TOGS	PMW-1	PMW-2	PMW-3	PMW-4	PMW-5
VOCs (ug/L)						
Acetone	50	**3.1 J**	ND	**6.2 J**	ND	**3.4 J**
SVOCs (ug/L)						
Flourene	50	ND	ND	ND	ND	**1.6 J**
2-Methylnaphthalene	NA	ND	ND	ND	ND	**1.6 J**
Phenanthrene	50	ND	ND	ND	ND	**1.8 J**
Metals (mg/L)						
Aluminum	0.1	**24.5**	**53.7**	**111**	**6.96**	**4.56**
Arsnic	0.025	**0.0634**	**0.0925**	**0.151**	**0.0406**	**0.0266**
Barium	1	**0.265**	**0.481**	**2.32**	**0.237**	**0.101**
Berillium	0.003	ND	ND	**0.00585**	ND	ND
Cadmium	0.005	ND	ND	**0.018**	ND	ND
Calcium	NA	**99.3**	**89**	**118**	**94.4**	**112**
Chromium	0.05	**0.0429**	**0.104**	**0.457**	**0.0199**	**0.01**
Cobalt	NA	ND	**0.0552**	**0.17**	ND	ND
Copper	0.2	**0.0434**	**0.0862**	**0.26**	ND	ND
Iron	0.3	**57.2**	**124**	**318**	**17**	**11.1**
Lead	0.025	**0.0354**	**0.0797**	**0.185**	**0.00993**	ND
Magnesium	35	**25.8**	**30.8**	**52.2**	**19.6**	**30**
Maganese	0.3	**1.99**	**3.04**	**7.11**	**1.29**	**1.47**
Nickel	0.1	**0.0589**	**0.124**	**0.841**	ND	ND
Potassium	NA	**3.9**	**10.8**	**15.4**	**3.04**	**2.84**
Selenium	0.01	ND	ND	**0.0456**	ND	ND
Silver	0.05	ND	ND	**0.0352**	ND	ND
Sodium	20	**8.63**	**172**	**31.6**	**29.8**	**6.24**
Thallium	0.0005	**0.0218**	**0.0257**	**0.0297**	**0.017**	**0.0187**
Vanadium	NA	ND	**0.0685**	**0.129**	ND	ND
Zinc	2	**0.137**	**0.26**	**0.597**	**0.0456**	**0.04**
Dioxins/Furans (ng/L)	TEF's					
2,3,7,8-TCDD	1	<0.00013	**0.00026**	-	**0.00055**	<0.001
1,2,3,7,8-PeCDD	0.5	**0.00019 EMPC**	**0.00029**	-	**0.00055 EMPC**	**0.00916**
1,2,3,4,7,8-HxCDD	0.1	**0.00027**	**0.00036**	-	**0.0005**	**0.0295**
1,2,3,6,7,8-HxCDD	0.1	**0.00213**	**0.00069**	-	**0.00098**	**0.185**
1,2,3,7,8,9-HxCDD	0.1	**0.00085**	**0.00083**	-	**0.0009**	**0.0671**
1,2,3,4,6,7,8-HpCDD	0.01	**0.0543**	**0.00974**	-	**0.0177**	**6.56**
OCDD	0.001	**0.468**	**0.129**	-	**0.256**	**58.6**
2,3,7,8-TCDF	0.1	**0.00321**	**0.00329**	-	**0.00364**	**0.00507**
1,2,3,7,8-PeCDF	0.05	**0.00021**	**0.0003**	-	**0.00065**	**0.00999**
2,3,4,7,8-PeCDF	0.5	**0.00047**	<0.0001	-	**0.00077**	**0.00946**
1,2,3,4,7,8-HxCDF	0.1	**0.00071**	**0.00059**	-	**0.00062**	**0.0457**
1,2,3,6,7,8-HxCDF	0.1	**0.00035 EMPC**	**0.00027 EMPC**	-	**0.00042**	**0.0198**
1,2,3,7,8,9-HxCDF	0.1	<0.00010	**0.00016 EMPC**	-	**0.00013**	<0.00287
2,3,4,6,7,8-HxCDF	0.1	**0.00031 EMPC**	**0.0003**	-	**0.00023**	**0.012 EMPC**
1,2,3,4,6,7,8-HpCDF	0.01	**0.00963**	**0.00176**	-	**0.00255**	**1.18**
1,2,3,4,7,8,9-HpCDF	0.01	**0.00063**	**0.00019**	-	<0.00015	**0.0919**
OCDF	0.001	**0.0625**	**0.00611**	-	**0.00826**	**7.11**
Total Tetra-Dioxins	-	**0.00028**	**0.00026**	-	**0.00257**	**0.0127**
Total Penta-Dioxins	-	**0.00028**	**0.00124**	-	**0.00107**	**0.0258**
Total Hexa-Dioxins	-	**0.00795**	**0.00666**	-	**0.0102**	**0.612**
Total Hepta-Dioxins	-	**0.0927**	**0.0211**	-	**0.0361**	**10.3**
Total Tetra-Furans	-	**0.0049**	**0.00836**	-	**0.00945**	**0.00907**
Total Penta-Furans	-	**0.00176**	**0.00108**	-	**0.00203**	**0.128**
Total Hexa-Furans	-	**0.0109**	**0.00189**	-	**0.00432**	**1.19**
Total Hepta-Furans	-	**0.0397**	**0.00599**	-	**0.00725**	**5.27**
2,3,7,8-TCDD Equivalence	0.0007	**0.0023 EMPC**	**0.00132 EMPC**	-	**0.00245 EMPC**	**0.19 EMPC**

Notes:
Data taken form the NYSDEC Preliminary Investigation Report

Table 5
December 2001 Groundwater Sampling Event Analytical Results
Camp Pharsalia

Analyte (Units)	TOGS	PMW-1	PMW-2	PMW-3	PMW-4	PMW-5
SVOCs (ug/L)						
Anthracene	50	<10 J	<10 J	<10 J	<10 J	**0.5 J**
Di-n-octyl phthalate	50	**1J**	<10 J	**0.7 J**	<10 J	<10 J
Hexochloroethane	5	<10 J	<10 J	<10 J	<10 J	**2 J**
Phenanthrene	50	<10 J	<10 J	<10 J	<10 J	**0.5 J**
Total SVOCs		**1 J**	BDL	**0.7 J**	BDL	**3 J**
Pesticides (ug/L)						
Heptachlor epoxide	0.03	<0.054	<0.049	<0.049	**0.11**	<0.050
Fuel Oil		**1100 J**	<5000	<5000	<5000	<5000

Notes: All results in ug/L
Bold Text=Analyte detected above laboratory method detection limit
Shaded Text=Exceedence of TOGS 1.1.1 guidance values
Only analytes detected at or above laboratory method detection limits included on tables
<U=Analyte was not detected above laboratory detection limits
J=Estimated Value
BDL=Below Detection Limits

Table 6
November 2002 Groundwater Sampling Event Analytical Results
Camp Pharsalia

Analyte *ug/L*	**TOGS**	**PMW-1**	**PMW-2**	**PMW-3**	**PMW-4**	**PMW-5**	**PMW-5 Filtered**	**PMW-6A**	**PMW-6A Filtered**
Turbidity at time of sample	-	29	600	6	0	0	0	730	615
Diesel Range Organics	-	<303	<309	<303	<303	**340**	**290 J**	**140 J**	**190 J**
Motor Oil	-	<303	<309	<303	<303	<309	<309	<303	<303
SVOCs *ug/L*									
Naphthalene	10	**0.5 J**	<10	<10	<10	<10	<10	<10	<10
Bis(2-ethylhexyl)phthalate	5	**13 B**	**38 B**	**6 JB**	**5 JB**	**5 JB**	**5 JB**	**6 JB**	**12 JB**
Dioxins *ng/L*	**TEF**	**PMW-1**	**PMW-2**	**PMW-3**	**PMW-4**	**PMW-5**	**PMW-5 Filtered**	**PMW-6A**	**PMW-6A Filtered**
2,3,7,8-TCDD	1	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,7,8-PeCDD	0.5	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,4,7,8-HxCDD	0.1	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,6,7,8-HxCDD	0.1	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,7,8,9-HxCDD	0.1	**0.0012**	ND	ND	ND	ND	ND	ND	ND
1,2,3,4,6,7,8-HpCDD	0.01	**0.0076**	ND	ND	ND	**0.0213**	ND	**0.00606**	ND
OCDD	0.001	**0.0274**	**0.0443**	ND	**0.0251**	ND	**0.0114**	**0.0415**	ND
2,3,7,8-TCDF	0.1	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,7,8-PeCDF	0.05	ND	ND	ND	ND	ND	ND	ND	ND
2,3,4,7,8-PeCDF	0.5	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,4,7,8-HxCDF	0.1	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,6,7,8-HxCDF	0.1	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,7,8,9-HxCDF	0.1	ND	ND	ND	ND	ND	ND	ND	ND
2,3,4,6,7,8-HxCDF	0.1	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,4,6,7,8-HpCDF	0.01	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,4,7,8,9-HpCDF	0.01	ND	ND	ND	ND	ND	ND	ND	ND
OCDF	0.001	ND	ND	ND	ND	**0.0296**	ND	ND	ND
2,3,7,8-TCDD Equivalance	0.0007	**0.000223**	**0.0000443**	BDL	**0.0000251**	**0.000359**	**0.0000114**	**0.000102**	BDL

Notes:
Bold Text=Analyte detected above laboratory method detection limit
Shaded Text=Exceedence of TOGS 1.1.1 guidance values
Only analytes detected at or above laboratory method detection limits included on tables
<=Analyte was not detected above laboratory detection limits
J=Estimated Value
BDL=Below Detection Limits
B=Analyte was found in method blank as well as the sample

FIGURES

APPENDIX A

DRILLING LOGS

INTERNATIONAL TECHNOLOGY CORPORATION

Drilling Log

Monitoring Well PMW-6

Project Camp Pharsalia | Owner New York State Dept. of Environmental Cons.

Location Chenango county, New York | Proj. No. 830271

Surface Elev. NA | Total Hole Depth 16.0 ft. | North | East

Top of Casing NA | Water Level Initial NA | Static ▼ 7.5 ft. | Diameter 4.25 in.

Screen: Dia 2 in. | Length 10.5 ft. | Type/Size PVC/0.010 in.

Casing: Dia 2 in. | Length 5.5 ft. | Type PVC

Fill Material OO Morie sand, bentonite, grout. | Rig/Core

Drill Co. Parratt Wolff | Method Hollow Stem Auger

Driller | Log By J. LaRock | Date 10/16/02 | Permit # NA

Checked By | License No.

COMMENTS

Depth (ft.)	Well Completion	PID (ppm)	Sample ID / % Recovery	Blow Count / Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure)
0							0-0.5' Asphalt.
2		0.0	50%			ML	0.5-2.0' Gray-brown, silt and subangular pepples, trace fine grain, sand, dry.
4		0.0	75%			ML	2.0-4.0' Gray-brown, silt and subangular pepples, trace fine grain, sand, dry.
6		0.0	50%			CL	4.0-6.0' Reddish brown - brown silt and clay, some subrounded pepples, inversely grades with depth to brown, fine grain, sand, little subangular cobble, moist.
8	▼	0.0	75%			ML	6.0-7.5' Tan till; tan, coarse grain sand and silt, some subangular pepples, wet.
10		0.0	50%			SPg	7.5-8.0' No recovery. 8.0-10.0' Brown Till; Brown coarse to fine grain sands and silt, some subangular pepples; dense, dry.
12		0.0	35%			CL	10.0-11.5' High plasticity clay and silt, some subrounded pepples, dry.
14		0.0	65%			GP	11.5-12.0' Subrounded gravels and subangular rock fragments, trace fine grain, sand, moist.
16		0.0	50%			GP	12.0-13.0' Brown, coarse to fine grain sands and silt, wet.
18						ML	13.0-16.0' Brown, high density till; Brown clay and silt, little coarse grain sand, little subrounded pepples, dry.
20							
22							
24							

Geologic descriptions are based on ASTM Standard D 2487-93 and the USCS.

INTERNATIONAL TECHNOLOGY CORPORATION

Drilling Log

Soil Boring **SB-1**

Project *Camp Pharsalia* Owner *New York State Dept. of Environmental Cons.*

Location *Chenango county, New York* Proj. No. *830271*

Surface Elev. *NA* Total Hole Depth *17.0 ft.* North _____ East _____

Top of Casing *NA* Water Level Initial *NA* Static ▼ *9.0 ft.* Diameter *4.25 in.*

Screen: Dia *NA* Length *NA* Type/Size *NA*

Casing: Dia *NA* Length *NA* Type *NA*

Fill Material *Bentonite.* Rig/Core _____

Drill Co. *American Auger* Method *Direct push/Air Rotary*

Driller _____ Log By *J.Santacroce* Date *11/15/01* Permit # *NA*

Checked By _____ License No. _____

COMMENTS

Depth (ft.)	PID (ppm)	Sample ID / % Recovery	Blow Count Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure)
0						Top soil.
	4.0	50%			SM	Tan-brown, fine grain, sand and silt, moist.
2						Tan-gray, fine grain, sand and silt, little clay, little fine to coarse gravel and shale (till), moist.
	8.4	25%				
4						Tan-gray wet silt and fine sand, little clay, water table @ 5 feet, petro - like odor at water table, high gravel content 5 to 6 feet (till).
	16.3	50%				
6						Tan silt and fine sand, little clay and fine to coarse gravel, petro - like odor in 6 to 7 foot interval, slight sheen (till), moist.
	19.0	50%				
8						Boulder at 9 feet, wet till to 10 feet with a present sheen and associative petro - like odor.
▼	14.3	5%				
10						Moist silt, some clay and fine grain sand, petro - like odor and sheen.
	25.0	50%				
12						Same as above, cobble at 13 feet.
	21.5	60%				
14						Over drilled 14 feet to 15 feet, no sample.
		0%				
16						Boulder at 16 feet, tan, tight till, trace clay.
		20%				
18						
20						
22						
24						

Geologic descriptions are based on ASTM Standard D 2487-93 and the USCS.

IT_COMMERCIAL Rev: 12/6/99 PHAR.GPJ IT_CORP.GDT 11/21/02

INTERNATIONAL TECHNOLOGY CORPORATION

Drilling Log

Soil Boring **SB-2**

Project *Camp Pharsalia* Owner *New York State Dept. of Environmental Cons.*

Location *Chenango county, New York* Proj. No. *830271*

Surface Elev. *NA* Total Hole Depth *18.0 ft.* North _____ East _____

Top of Casing *NA* Water Level Initial *NA* Static ▼ *5.0 ft.* Diameter *4.25 in.*

Screen: Dia *NA* Length *NA* Type/Size *NA*

Casing: Dia *NA* Length *NA* Type *NA*

Fill Material *Bentonite.* Rig/Core _____

Drill Co. *American Auger* Method *Direct Push/Air Rotary*

Driller _____ Log By *J.Santacroce* Date *11/15/01* Permit # *NA*

Checked By _____ License No. _____

COMMENTS

Depth (ft.)	PID (ppm)	Sample ID / % Recovery	Blow Count Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure)
0						Brown top soil.
2	0	20%				Brown, medium and fine grain sand, some silt, dry.
4	0	50%				Boulder, shale.
6	45.0	90%				Tan, silty till, dry with some fine grain sand.
8	84.2	70%				Tan, silt, some fine grain sand and silt and fine to medium grain sand, petro - like odor, moist.
10	NA	50%				Tan, till, silt and fine grain sand, trace cobble and medium grain sand
12	110.0	60%				8-9' Silt and medium grain sand, some clay, petro - like odor, moist.
14	108.0	10%				9-10' Gray clay, some silt and fine to coarse grain sand, strong petro - like odor, moist, water @ 9'.
16	11.0	25%				Unsorted wet gravel top foot of sample, tan, till below sheen and strong petro - like odor, dry 11.5 to 12 foot, petroleum odor, medium to coarse grain, sand and silt.
18	10.5	30%				Pushed shale boulder.
20						Dry, tan, silt and fine grain sand, some medium to coarse gravel, trace cobble, shale.
22						Change to gray, clay @ 16.5 feet; medium to coarse gravel, faint petoleum odor.
24						

Geologic descriptions are based on ASTM Standard D 2487-93 and the USCS.

IT_COMMERCIAL Rev: 12/6/99 PHAR.GPJ IT_CORP.GDT 11/21/02

INTERNATIONAL TECHNOLOGY CORPORATION

Drilling Log

Soil Boring **SB-3**

Project *Camp Pharsalia* Owner *New York State Dept. of Environmental Cons.*

Location *Chenango county, New York* Proj. No. *830271*

Surface Elev. *NA* Total Hole Depth *12.0 ft.* North _____ East _____

Top of Casing *NA* Water Level Initial *NA* Static ▼ *3.0 ft.* Diameter *4.25 in.*

Screen: Dia *NA* Length *NA* Type/Size *NA*

Casing: Dia *NA* Length *NA* Type *NA*

Fill Material *Bentonite.* Rig/Core _____

Drill Co. *American Auger* Method *Direct Push/Air Rotary*

Driller _____ Log By *J.Santacroce* Date *11/15/01* Permit # *NA*

Checked By _____ License No. _____

COMMENTS

Depth (ft.)	PID (ppm)	Sample ID / % Recovery	Blow Count / Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure)
0						Geologic descriptions are based on ASTM Standard D 2487-93 and the USCS.
0	0	30%				Brown top soil. Tan, till, medium to coarse grain sand and silt, dry.
2	2.2	25%				Tan, til, tight silt and fine grain sand, strong petro - like odor, dry
4	1.6	50%				Tan, till, wet silt and fine grain sand, some medium grain sand and gravel, water table at 3 feet bgs, petro - like odor. Tan, till, silt and fine grain sand, slight petro -like odor, moist.
6	0.5	50%				Tan, till, dry silt and fine grain sand, some medium grain sand and gravel, slight petro - like odor
8	8.5	10%				Cobbles, tan till, dry silt and fine grain sand, some medium grain sand and gravel. Boulder 8.5 to 10 feet.
10	12.0	25%				Gray clay and fine to coarse grain gravel and cobbles (till).
12						
14						
16						
18						
20						
22						
24						

IT_COMMERCIAL Rev: 12/6/99 PHAR.GPJ IT_CORP.GDT 11/21/02

INTERNATIONAL TECHNOLOGY CORPORATION

Drilling Log

Soil Boring **SB-4**

Project *Camp Pharsalia* Owner *New York State Dept. of Environmental Cons.*

Location *Chenango county, New York* Proj. No. *830271*

Surface Elev. *NA* Total Hole Depth *10.0 ft.* North _____ East _____

Top of Casing *NA* Water Level Initial *NA* Static ▼ *6.0 ft.* Diameter *4.25 in.*

Screen: Dia *NA* Length *NA* Type/Size *NA*

Casing: Dia *NA* Length *NA* Type *NA*

Fill Material *Bentonite.* Rig/Core _____

Drill Co. *American Auger* Method *Direct Push/Air Rotary*

Driller _____ Log By *J.Santacroce* Date *11/16/01* Permit # *NA*

Checked By _____ License No. _____

COMMENTS

Depth (ft.)	PID (ppm)	Sample ID / % Recovery	Blow Count / Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure)
0						Geologic descriptions are based on ASTM Standard D 2487-93 and the USCS.
0	0	25%				Brown top soil. Boulder and cobbles.
2	0	100%				Tan, till, silt and fine grain sand, some fine to coarse garvel top 1.5 feet.
4	1.6	40%				Tan, till, silt and fine grain sand, dry.
6 ▼	1.0	75%				Tan, till, saturate silt and fine grain sand, some coarse gravel and cobble, wet.
8	0	75%				Tan, till, silt and fine grain sand and cobble, wet.
10						Hole terminated @ 10 feet due to boulder. No odor or sheen throughout boring.
12						
14						
16						
18						
20						
22						
24						

IT_COMMERCIAL Rev: 12/6/99 PHAR.GPJ IT_CORP.GDT 11/21/02

INTERNATIONAL TECHNOLOGY CORPORATION

Drilling Log

Soil Boring **SB-5**

Project *Camp Pharsalia* Owner *New York State Dept. of Environmental Cons.*

Location *Chenango county, New York* Proj. No. *830271*

Surface Elev. *NA* Total Hole Depth *14.0 ft.* North _____ East _____

Top of Casing *NA* Water Level Initial *NA* Static ▼ *6.0 ft.* Diameter *4.25 in.*

Screen: Dia *NA* Length *NA* Type/Size *NA*

Casing: Dia *NA* Length *NA* Type *NA*

Fill Material *Bentonite.* Rig/Core _____

Drill Co. *American Auger* Method *Direct Push/Air Rotary*

Driller _____ Log By *J.Santacroce* Date *11/16/01* Permit # *NA*

Checked By _____ License No. _____

COMMENTS

Depth (ft.)	PID (ppm)	Sample ID / % Recovery	Blow Count / Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure)
0						Geologic descriptions are based on ASTM Standard D 2487-93 and the USCS.
0	0	10%				Dark brown top soil. Tan, till, silt and fine grain sand, dry.
2	0	25%				Tan, till, silt and fine grain sand, trace subrounded gravel, dry.
4	0	25%				Tan, till, silt and fine grain sand, trace clay, trace fine to medium gravel, moist.
6 ▼	0.2	50%				Tan, till, saturated silt and fine grain sand and gray clay, wet. Shale boulder, with unknown brown-orange, subrounded granuals.
8	13.2	75%				Tan, till, medium to coarse gravel, slight petro-like odor, moist.
10	5.7	80%				Shale, cobbles. Tan, till, very tight, silt and fine grain sand, little medium sand, trace clay, slight odor.
12	4.1	30%				Tan, till, silt, little medium to coarse grain sand, very tight, little coarse gravel, no odor.
14						
16						
18						
20						
22						
24						

IT_COMMERCIAL Rev: 12/6/99 PHAR.GPJ IT_CORP.GDT 11/21/02

INTERNATIONAL TECHNOLOGY CORPORATION

Drilling Log

Soil Boring **SB-6**

Project *Camp Pharsalia* Owner *New York State Dept. of Environmental Cons.*

Location *Chenango county, New York* Proj. No. *830271*

Surface Elev. *NA* Total Hole Depth *13.0 ft.* North _____ East _____

Top of Casing *NA* Water Level Initial *NA* Static ▼ *5.0 ft.* Diameter *4.25 in.*

Screen: Dia *NA* Length *NA* Type/Size *NA*

Casing: Dia *NA* Length *NA* Type *NA*

Fill Material *Bentonite.* Rig/Core _____

Drill Co. *American Auger* Method *Direct Push/Air Rotary*

Driller _____ Log By *J.Santacroce* Date *11/16/01* Permit # *NA*

Checked By _____ License No. _____

COMMENTS

Depth (ft.)	PID (ppm)	Sample ID / % Recovery	Blow Count / Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure)
0	0	10%				Brown top soil. Boulder.
2	0	20%				Tan, till, silt, some fine grain to medium grain sand and cobble, dry.
4	0	30%				Same as above, saturated, water table at 5 feet bgs.
6	0	50%				Weathered shale.
8	0	60%				Till, silt and fine grain sand, some medium to coarse gravel, dry.
10	0	40%				Till, tight silt and fine grain sand, trace clay.
12	0	10%				12-13' Gray clay and silt, tan and gray shale cobbles, trce fine grain sand, high clay content, Refusal at 13 feet.
14						
16						
18						
20						
22						
24						

Description

(Color, Texture, Structure)

Geologic descriptions are based on ASTM Standard D 2487-93 and the USCS.

INTERNATIONAL TECHNOLOGY CORPORATION

Drilling Log

Soil Boring **SB-7**

Project *Camp Pharsalia* Owner *New York State Dept. of Environmental Cons.*

Location *Chenango county, New York* Proj. No. *830271*

Surface Elev. *NA* Total Hole Depth *12.0 ft.* North _____ East _____

Top of Casing *NA* Water Level Initial *NA* Static ▼ *3.0 ft.* Diameter *4.25 in.*

Screen: Dia *NA* Length *NA* Type/Size *NA*

Casing: Dia *NA* Length *NA* Type *NA*

Fill Material *Bentonite.* Rig/Core _____

Drill Co. *American Auger* Method *Direct Push/Air Rotary*

Driller _____ Log By *J.Santacroce* Date *11/16/01* Permit # *NA*

Checked By _____ License No. _____

COMMENTS

Depth (ft.)	PID (ppm)	Sample ID / % Recovery	Blow Count / Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure)
0	0	10%			SM	Brown top soil.
2	0	20%			GP GM	Brown silt, some medium to fine grain, sand, gravel lense at 3 feet, cobbles and saturated at 3 feet.
4	0	30%				Saturated gravel, silt and sand, water table at 3 feet bgs.
6	0	25%				Boulder 4 to 5 feet bgs.
8	0	50%				Tan, till, silt and fine grain sand, some fine to medium gravel, moist.
10	0	60%				Tan, till, same as above, trace clay at 7 feet bgs, dry 7 to 8 feet bgs.
12						Tight silt and fine grain sand, little fine gravel, dry.
14						Same as above.
16						
18						
20						
22						
24						

Geologic descriptions are based on ASTM Standard D 2487-93 and the USCS.

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INTERNATIONAL TECHNOLOGY CORPORATION

Drilling Log

Soil Boring **SB-8**

Project *Camp Pharsalia* Owner *New York State Dept. of Environmental Cons.*

Location *Chenango county, New York* Proj. No. *830271*

Surface Elev. *NA* Total Hole Depth *16.0 ft.* North _____ East _____

Top of Casing *NA* Water Level Initial *NA* Static *NA* Diameter *4.25 in.*

Screen: Dia *NA* Length *NA* Type/Size *NA*

Casing: Dia *NA* Length *NA* Type *NA*

Fill Material *Cement grout slurry.* Rig/Core _____

Drill Co. *Parratt Wolff* Method *Direct Push/Water Rotary*

Driller _____ Log By *J. LaRock* Date *10/16/02* Permit # *NA*

Checked By _____ License No. _____

COMMENTS
Water level difficult to determine due to drilling technique and weather conditions

Depth (ft.)	PID (ppm)	Sample ID / % Recovery	Blow Count Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure)
0						0-0.5' Topsoil
2	0.0	50%			SP	0.5-4.0' Fine grain, sand and subrouned gravel, dry.
4	0.0	50%			SP	4.0-6.0' Coarse to fine grain, sand and subrounded gravel, some subangular cobble, dry.
6	0.0	40%			SP	6.0-10.0' Coarse to fine grain, sand, some subrounded gravel, dry.
8	0.0	60%			SP	
10	0.0	80%			SP	10.0-12.0' Coarse grain sand and subrounded gravel, lense about 3-4" in thickness; high density but closer to clast supported, dry.
12	0.0	75%			SP	12.0-14.0' Coarse grain, sand and subrounded gravel, some subangular cobble, dry.
14	0.0	40%			SP	14.0-16.0' Coarse to fine grain, sand and silt, some subrounded gravel, little subangular cobble, dry.
16		90%				
18						
20						
22						
24						

Geologic descriptions are based on ASTM Standard D 2487-93 and the USCS.

INTERNATIONAL TECHNOLOGY CORPORATION

Drilling Log

Soil Boring **SB-9**

Project *Camp Pharsalia* Owner *New York State Dept. of Environmental Cons.*

Location *Chenango county, New York* Proj. No. *830271*

Surface Elev. *NA* Total Hole Depth *16.0 ft.* North _____ East _____

Top of Casing *NA* Water Level Initial *NA* Static *NA* Diameter *4.25 in.*

Screen: Dia *NA* Length *NA* Type/Size *NA*

Casing: Dia *NA* Length *NA* Type *NA*

Fill Material *Cement grout slurry.* Rig/Core _____

Drill Co. *Parratt Wolff* Method *Direct Push/Water Rotary*

Driller _____ Log By *J. LaRock* Date *10/17/02* Permit # *NA*

Checked By _____ License No. _____

COMMENTS

Depth (ft.)	PID (ppm)	Sample ID / % Recovery	Blow Count / Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure)
0						0-1.0' Topsoil
2	0.0	40%			SP	1.0-2.0' Brown/tan, fine grain, sand, some subangular gravel, dry.
					GP	2.0-2.4' Brown/tan, coarse grain sand and angular gravel, dry.
4	0.0	60%			SP	2.4-4.0' Tan/brown, fine grain, sand and silt, some subrounded gravel, dry.
	0.0	75%			SP	4.0-8.0' Tan, fine grain, sand, some silt, little subrounded gravel, dry.
6						
8	0.0	20%			SP SM	8.0-10.0' Tan, fine grain, sand and silt, some subrounded gravel, dry.
	0.0	80%			SP	10-10.5' Tan, coarse to fine grain, sand and silt, some subrounded gravel, dry.
10	0.0	100%			GP	10.5-11.5' Tan, fine grain, sand and silt, some subrounded gravel, trace subangular cobble, moist.
12					CL	11.5-12.0' Brown, clay, low plasticity.
	0.0	100%			SP GP	12.0-12.25' Coarse grain, sand and subrounded gravel; moderately sorted; dry.
14					SP SM	12.25-12.5' Coarse grain, sand and angular gravel, dry.
	0.0	50%				12.5-16.0' Brown, fine grain, sand and silt, some subrounded gravel, dry.
16						
18						
20						
22						
24						

Geologic descriptions are based on ASTM Standard D 2487-93 and the USCS.

INTERNATIONAL TECHNOLOGY CORPORATION

Drilling Log

Soil Boring **SB-10**

Project *Camp Pharsalia* Owner *New York State Dept. of Environmental Cons.*

Location *Chenango county, New York* Proj. No. *830271*

Surface Elev. *NA* Total Hole Depth *16.0 ft.* North _____ East _____

Top of Casing *NA* Water Level Initial *NA* Static ▼ *12.5 ft.* Diameter *4.25 in.*

Screen: Dia *NA* Length *NA* Type/Size *NA*

Casing: Dia *NA* Length *NA* Type *NA*

Fill Material *Cement grout slurry.* Rig/Core _____

Drill Co. *Parratt Wolff* Method *Direct Push/Water Rotary*

Driller _____ Log By *J. LaRock* Date *10/17/02* Permit # *NA*

Checked By _____ License No. _____

COMMENTS

Depth (ft.)	PID (ppm)	Sample ID / % Recovery	Blow Count / Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure)
0						0-0.5' Topsoil
2	0.0	60%			SP	0.5-2.0' Tan-gray fine grain sand and silt, some coarse grain, sand, some subanglular pebbles, dry.
4	0.0	75%			SP	2.0-4.0' Tan-gray, fine grain, sand and silt, some coarse grain, sand, some subangular pepple, bottom two inches encounter subangular cobble, high density, dry.
6	0.0	50%			SP	4.0-4.5' Brown-gray coarse to fine grain, sand, moist.
8	0.0	50%			SP	4.5-10.0' Brown- gray, silt and fine grain, sand, some coarse grain, sand, some subrounded gravel, moisture on acetate liner, dry.
10	0.0	40%			SP	
12 ▼	0.0	95%			SP	10.0-12.5' Brown- gray, very fine grain, sand, some silt; some subrounded gravel, moist.
14	0.0	75%			GP	12.5-13.25' Subrounded gravel and subangular cobble, wet
16	0.0	50%			SP	13.25-16.0' Brown-gray, fine grain, sand and silt, some subrounded gravel, high density, wet.
18						
20						
22						
24						

Geologic descriptions are based on ASTM Standard D 2487-93 and the USCS.

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INTERNATIONAL TECHNOLOGY CORPORATION

Drilling Log

Soil Boring **SB-11**

Project *Camp Pharsalia* Owner *New York State Dept. of Environmental Cons.*

Location *Chenango county, New York* Proj. No. *830271*

Surface Elev. *NA* Total Hole Depth *12.0 ft.* North _____ East _____

Top of Casing *NA* Water Level Initial *NA* Static ▼ *1.0 ft.* Diameter *4.25 in.*

Screen: Dia *NA* Length *NA* Type/Size *NA*

Casing: Dia *NA* Length *NA* Type *NA*

Fill Material *Cement grout slurry.* Rig/Core _____

Drill Co. *Parratt Wolff* Method *Direct Push/Water Rotary*

Driller _____ Log By *J. LaRock* Date *10/18/02* Permit # *NA*

Checked By _____ License No. _____

COMMENTS
Located in front of the storage building

Depth (ft.)	PID (ppm)	Sample ID / % Recovery	Blow Count / Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure)
0						Geologic descriptions are based on ASTM Standard D 2487-93 and the USCS.
0						0-0.5' Topsoil
▼	15.6	50%			SM	0.5-1.0' Gray - tan, very fine grain sand and silt, dry.
					SM	1.0-1.25' Wood chips; strong odor; wet.
2	17.3	60%			GP	1.25-2.0' Very fine grain sand and silt, wet.
					SP	2.0-2.75' Coarse grain sand, some subrounded gravel, little angular cobble, saturated with a sheen and a strong odor, wet.
4	29.8	75%				2.75-4.0' Gray - tan, coarse to fine grain, sand, some subrounded gravel, moist.
6	18.2	50%			SP	4.0-8.0' Gray silt and very fine grain, sand, some subrounded gravel, dry.
8	2.5	75%			GP	8.0-9.0' Gray, coarse to fine grain, sand, some subrounded gravel, moist.
10	0.0	50%			SP	9.0-12.0' Gray, fine grain, sand, some subrounded gravel, high density, dry.
12						
14						
16						
18						
20						
22						
24						

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INTERNATIONAL TECHNOLOGY CORPORATION

Drilling Log

Soil Boring **SB-12**

Project *Camp Pharsalia* Owner *New York State Dept. of Environmental Cons.*

Location *Chenango county, New York* Proj. No. *830271*

Surface Elev. *NA* Total Hole Depth *16.0 ft.* North _____ East _____

Top of Casing *NA* Water Level Initial *NA* Static *NA* Diameter *4.25 in.*

Screen: Dia *NA* Length *NA* Type/Size *NA*

Casing: Dia *NA* Length *NA* Type *NA*

Fill Material *Cement grout slurry.* Rig/Core _____

Drill Co. *Parratt Wolff* Method *Direct Push/Water Rotary*

Driller _____ Log By *J. LaRock* Date *10/18/02* Permit # *NA*

Checked By _____ License No. _____

COMMENTS

Depth (ft.)	PID (ppm)	Sample ID / % Recovery	Blow Count / Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure)
0						0-0.75' Topsoil
2	0.0	65%			SM	0.75-2.0' Tan-brown, fine grain, sand and silt, high density, dry.
4	0.0	50%			SP SM	2.0-6.0' Brown-tan, fine grain, sand and silt, some subrounded gravel, dry.
6	0.0	80%				
8	0.0	25%				6.0-14.0' Brown-tan, fine grain, sand and silt, some subrounded gravel, dry.
10	0.0	25%			SP SM	
12	0.0	25%				
14	0.0	50%				
16		75%			SP	14.0-16.0' Brown-tan, fine grain, sand and subrounded gravel, dry. Large subangular rock fragments from 15.5-15.8'.
18						
20						
22						
24						

Geologic descriptions are based on ASTM Standard D 2487-93 and the USCS.

INTERNATIONAL TECHNOLOGY CORPORATION

Drilling Log

Soil Boring **SB-13**

Project *Camp Pharsalia* Owner *New York State Dept. of Environmental Cons.*

Location *Chenango county, New York* Proj. No. *830271*

Surface Elev. *NA* Total Hole Depth *16.0 ft.* North _____ East _____

Top of Casing *NA* Water Level Initial *NA* Static ▼ *8.5 ft.* Diameter *4.25 in.*

Screen: Dia *NA* Length *NA* Type/Size *NA*

Casing: Dia *NA* Length *NA* Type *NA*

Fill Material *Cement grout slurry.* Rig/Core _____

Drill Co. *Parratt Wolff* Method *Direct Push/Water Rotary*

Driller _____ Log By *J. LaRock* Date *10/17/02* Permit # *NA*

Checked By _____ License No. _____

COMMENTS

Depth (ft.)	PID (ppm)	Sample ID / % Recovery	Blow Count Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure)
0						0-0.5' Topsoil
2	0.0	75%			SP	0.5-4.0' Tan- brown, fine grain, sand, some silt, some subrounded gravel, dry.
4	0.0	50%				
6	0.0	75%			SP	4.0-8.5' Tan-brown, fine grain, sand and silt, some subrounded gravel, moist.
8 ▼	0.0	50%				
10	0.0	100%			ML GP	8.5-8.8' Tan-brown, fine grain, sand, some subrounded cobble, wet. 8.8-9.5' Tan-brown, fine grain, sand and subrounded gravel, some subangular gravel, moist.
12	0.0	60%			SP	9.5-14.0' Tan-gray, coarse grain, sand, some subrounded gravel, high density, dry.
14	0.0	50%				
16	0.0	100%			SP GP SP	14.0-14.5' Tan-gray, coarse grain, sand, some subrounded gravel, dry. 14.5-15.0' Gray-tan, fine grain, sand and angular gravel, dry. 15.0-16.0' Gray-tan fine grain, sand and silt, some subrounded gravel, dry.
18						
20						
22						
24						

Geologic descriptions are based on ASTM Standard D 2487-93 and the USCS.

IT_COMMERCIAL Rev: 12/6/99 PHAR.GPJ IT_CORP.GDT 11/21/02

APPENDIX B

GAUGING DATA

Groundwater Well Purging Data Sheet

Project Name: Pfeiffer Well ID: mw-1 Date: 11/7/02

Water Level Data Time: 14:18
A) Depth To Bottom: 16.30
B) Depth To Water: 2.95
C) Height of water column: 13.35

1 well volume = 2.20 3 well volumes= 6.60 5 well volumes= 11.00

Purge Data
Method: Well pump Flow: 10.25 gallons per minute

1/2 gallon	1 gallon	1 1/2 gallon	2 gallons
Turb: 565	Turb: 95	Turb: 76	Turb: 6.0
	pH: 6.92		pH: 6.91
	Cond: 0.455		Cond: 0.450
	Temp: 10.78		Temp: 10.26
	DO: 0.40		DO: 0.91

2 1/2 gallons	3 gallons	3 1/2 gallons	4 gallons
Turb: 45	Turb: 47	Turb: 41	Turb: @4 39.6
	pH: 6.90		pH: 6.89
	Cond: 452		Cond: 0.454
	Temp: 10.24		Temp: 10.18
	DO: 1.37		DO: 1.33

Did Well Dry Out? NO How Many Times? —

Time Purging ended: 14:50

Observations:
Color: Gray → Clear Sheen?: — Odor?: —

Comments: 8 gallons Purged

Personnel: MP

Groundwater Well Purging Data Sheet

Project Name: Camp Phoenix Well ID: PMW-2 Date: 11/7/02

Water Level Data Time: 1507
A) Depth To Bottom: 16.0
B) Depth To Water: 4.6
C) Height of water column: 11.4

1 well volume = 1.86 3 well volumes= 5.58 5 well volumes=

Purge Data
Method: Low Flow / Sub Pump Flow: 1/3 gallons per minute

1/2 gallon	1 gallon	1 1/2 gallon	2 gallons
Turb:	Turb: 0	Turb: 0	Turb: 0
	pH: 6.53		pH: 6.44
	Cond: .196		Cond: .197
	Temp: 10.5		Temp: 10.1
	DO: 7.97		DO: 3.44

2 1/2 gallons	3 gallons	3 1/2 gallons	4 gallons		
Turb: 0	Turb: 0	Turb: 0	Turb: 0	4 1/2	5
	pH: 6.29		pH: 6.30	0	
	Cond: .201		Cond: .202		
	Temp: 11.0		Temp: 11.2		
	DO: 7.05		DO: 7.33	5 1/2	

Did Well Dry Out? N How Many Times? —

Time Purging ended: 1550

Observations:
Color: Lt Brn Sheen?: N Odor?: N

Comments: Clears quickly. Miss 1/2 gall - adj flow
~~Slight~~ Sw Parameters stabilize - sample

Personnel: MEF

Groundwater Well Purging Data Sheet

Project Name: Pharmalia Well ID: PMW-3 Date: 11/13

Water Level Data Time: 1941
A) Depth To Bottom: 13.60
B) Depth To Water: 5.74
C) Height of water column: 7.86

1 well volume = 1.29 3 well volumes= 3.87 5 well volumes= 6.45

Purge Data
Method: Waterra Pump Flow: 0.25 gallons per minute

1/2 gallon	1 gallon	1 1/2 gallon	2 gallons
Turb: 42	Turb: 46	Turb: 8	Turb: 6
	pH: 6.72		pH: 6.20
	Cond: 0.759		Cond: 0.792
	Temp: 8.9		Temp: 9.4
	DO: 9.17		DO: 8.98

2 1/2 gallons	3 gallons	3 1/2 gallons	4 gallons
Turb: 4	Turb: 0	Turb: 0	Turb: 10.
	pH: 6.11		pH: 5.91
	Cond: 0.774		Cond: 0.790
	Temp: 9.7		Temp: 9.4
	DO: 8.93		DO: 8.89

Did Well Dry Out? NO How Many Times? —

Time Purging ended: 1956

Observations:
Color: Clear Sheen?: — Odor?: —

Comments: _____

_____

Personnel: A.P

Groundwater Well Purging Data Sheet

Project Name: Pharsalia Well ID: PMW-4 Date: 11/13/02

Water Level Data Time: 1727
A) Depth To Bottom: 16.00
B) Depth To Water: 5.12
C) Height of water column: 10.88

1 well volume = 1.77 3 well volumes= 5.31 5 well volumes=

Purge Data
Method: Low Flow Flow: 1-4 gallons per minute

1/2 gallon	1 gallon	1 1/2 gallon	2 gallons	
Turb: 999	Turb: 376.0	Turb: 181.0	Turb: 813.0	Recal
	pH: 6.34		pH: 6.74	
	Cond: .712		Cond: .654	
	Temp: 10.2		Temp: 9.6	
	DO: 8.01		DO: 8.07	

2 1/2 gallons	3 gallons	3 1/2 gallons	4 gallons		
Turb: 0	Turb: 0	Turb: 0	Turb: 0	4 1/2	5
	pH: 6.12		pH: 6.55	0	0
	Cond: .727		Cond: .681		6.77
	Temp: 10.9		Temp: 10.8		.673
	DO: 7.28		DO: 7.23		10.8
					7.03

Did Well Dry Out? N How Many Times? -

Time Purging ended: 1803

Observations:
Color: Lt brown Sheen?: N Odor?: N

Comments: At 2 gal - grip fell off turb ↑ - Sensor off. - recal

Personnel: MEF

Groundwater Well Purging Data Sheet

Project Name: Pharsalia Well ID: PM40-5 Date: 11/13/02

Water Level Data Time: 6:11 pm
A) Depth To Bottom: 14.05
B) Depth To Water: 5.06
C) Height of water column: 8.99

1 well volume = 1.46 3 well volumes= 4.38 5 well volumes= 7.30

Purge Data
Method: wale pump Flow: 10.25 gallons per minute

1/2 gallon	1 gallon	1 1/2 gallon	2 gallons
Turb: 217	Turb: 159	Turb: 220	Turb: 54.0
	pH: 6.62		pH: 6.42
	Cond: 0.99		Cond: 0.99
	Temp: 10.3		Temp: 10.4
	DO: 9.37		DO: 9.47

2 1/2 gallons	3 gallons	3 1/2 gallons	4 gallons
Turb: 4	Turb: 4	Turb: 0	Turb: 0
	pH: 6.45		pH: 6.47
	Cond: 0.98		Cond: 0.99
	Temp: 10.5		Temp: 10.4
	DO: 9.49		DO: 9.74

Did Well Dry Out? NO How Many Times?

Time Purging ended: 7:00

Observations:
Color: Clear Sheen?: — Odor?: —

Comments: purged 6 gallons

Personnel: AP

Groundwater Well Purging Data Sheet

Project Name: Pharsalia Well ID: PMW-6 Date: 11/13/02

Water Level Data Time: 1940
A) Depth To Bottom: 15.60
B) Depth To Water: 2.60
C) Height of water column: 13.00

1 well volume = 2.11 3 well volumes= 6.33 5 well volumes=

Purge Data
Method: Low Flow Flow: ~1/4 gallons per minute

1/2 gallon	1 gallon	1 1/2 gallon	2 gallons
Turb: 999	Turb: 999	Turb: 800	Turb: 994
	pH: 7.01		pH: 7.04
	Cond: .828		Cond: .838
	Temp: 9.9		Temp: 12.7 (?)
	DO: 7.02		DO: 6.23

2 1/2 gallons	3 gallons	3 1/2 gallons	4 gallons
Turb: -	Turb: -	Turb: 926	Turb: -
	pH: 7.07		pH: 7.22
	Cond: .865		Cond: .885
	Temp: 12.7		Temp: 12.4
	DO: 6.69		DO: 6.93

4 1/2 — 5 802 7.28 .936 13.1 6.72

5 1/2 — 6 .730 7.34 .941 13.2 6.83

Did Well Dry Out? N How Many Times?

Time Purging ended: 2004

Observations:
Color: Brown - Clear-some fines Sheen?: N Odor?: N

Comments: Drawing too much from pump - lg batter - high turb - however can see through line (turb sensor?)

Personnel: MEF

APPENDIX C

GROUNDWATER SAMPLE COLLECTION LOGS

Groundwater Well Sampling Data Sheet

Project Name: Pharsalia Well ID: MW-1 Date: 10/7/02

Water Level Data Time: 1500
A) Depth To Bottom: 16.30
B) Depth To Water: 2.90
C) Height of water column: 13.40

Sampling Method
Method: Wale Pump Flow: 0.25 gpm gallons per minute

Prior to sampling:
Turb: 39.2
pH: 6.91
Cond: 0.460
Temp: 10.59
DO: 1.30

Dioxin Sample:
Turb: 37.6
(out of jar)

Constituents Sampled	# of Amber Liters Collected	Filtered? (Circle one)	
8260	2	yes	(no)
Dioxins	2	yes	(no)
PNA	2	yes	(no)
		yes	no
		yes	no

Did Well Dry Out? No How Many Times? —

Observations:
Color: Sheen?: Odor?:

Comments:

Personnel: AP

Groundwater Well Sampling Data Sheet

Project Name: Camp Pharsalia Well ID: PMW 2 Date: 11/7/07

Water Level Data Time: 1553
A) Depth To Bottom: 16.0
B) Depth To Water: 4.6
C) Height of water column: 11.4

Sampling Method
Method: Low Flow Flow: 1/4 gallons per minute

Prior to sampling:
Turb: 0
pH: 6.30
Cond: .202
Temp: 11.2
DO: 7.33

Dioxin Sample:
Turb: 0
(out of jar)

Constituents Sampled	# of Amber Liters Collected	Filtered? (Circle one)
Dioxins	N	yes no
SVOC	N	yes no
Fuel 01	N	yes no
		yes no
		yes no

Did Well Dry Out? N How Many Times?

Observations:
Color: Clear Sheen?: N Odor?: N

Comments:

Personnel: MEF

Groundwater Well Sampling Data Sheet

Project Name: Pharsalia Well ID: PMW-3 Date: 11/13/02

Water Level Data Time: 19.56
A) Depth To Bottom: 13.60
B) Depth To Water: 5.74
C) Height of water column: 7.86

Sampling Method
Method: Pump Flow: 0.25 gallons per minute

Prior to sampling:
Turb: 6
pH: 5.99
Cond: 0.789
Temp: 9.4
DO: 8.92

Dioxin Sample:
Turb: 10
(out of jar)

Constituents Sampled	# of Amber Liters Collected	Filtered? (Circle one)	
Dioxin	2	yes	(no)
BNA	2	yes	(no)
310.13	2	yes	(no)
		yes	no
		yes	no

Did Well Dry Out? NO How Many Times? —

Observations:
Color: Clear Sheen?: — Odor?: —

Comments: Sampled @ 20:07

Personnel: AP

Groundwater Well Sampling Data Sheet

Project Name: Phorsalia Well ID: PMW-4 Date: 11/13/02

Water Level Data Time: 1805
A) Depth To Bottom: 10.0
B) Depth To Water: 5.12
C) Height of water column: 10.38

Sampling Method
Method: Low Flow Flow: ~1/4 gallons per minute

Prior to sampling:
Turb: 0
pH: 6.77
Cond: .673
Temp: 10.8
DO: 7.03

Dioxin Sample:
Turb: 0
(out of jar)

Constituents Sampled	# of Amber Liters Collected	Filtered? (Circle one)	
Dioxins	2	yes	no
SVOC	2	yes	no
Fuel 0.1	2	yes	no
		yes	no
		yes	no

Did Well Dry Out? N How Many Times? -

Observations:
Color: Clear Sheen?: N Odor?: N

Comments:

Personnel: MEF

Groundwater Well Sampling Data Sheet

Project Name: Pharsalia Well ID: PMW-5 Date: 11/13/02

Water Level Data Time: 6:11
A) Depth To Bottom: 14.05
B) Depth To Water: 5.06
C) Height of water column: 8.99

Sampling Method
Method: Pump Flow: 0.25 gallons per minute

Prior to sampling:
Turb: 0
pH: 6.47
Cond: 0.97
Temp: 10.4
DO: 9.74

Dioxin Sample:
Turb: 0
(out of jar)

Constituents Sampled	# of Amber Liters Collected	Filtered? (Circle one) 7:15	7:00
Dioxin	2/2	(yes)	(no)
310.13	2/1	(yes)	(no)
BNA	2/2	(yes)	(no)
		yes	no
		yes	no

Did Well Dry Out? NO How Many Times? —

Observations:
Color: clear Sheen?: N Odor?: N

Comments:

Personnel: AR

Groundwater Well Sampling Data Sheet

Project Name: Pharsalia Well ID: ~~PMW-6~~ PMW-6F Date: 11/13/02

Water Level Data Time: 1940
A) Depth To Bottom: 15.60
B) Depth To Water: 2.60
C) Height of water column: 13.00

Sampling Method
Method: Low Flow Flow: ~1/4 gallons per minute

Prior to sampling:
Turb: 730
pH: 7.34
Cond: .941
Temp: 13.2
DO: 6.83

Dioxin Sample:
Turb: 615
(out of jar)

Constituents Sampled	# of Amber Liters Collected	Filtered? (Circle one)	
Dioxins	2/2	(yes)	(no)
SVOC	2/2	(yes)	(no)
Fuel Oil	2/2	(yes)	(no)
		yes	no
		yes	no

Did Well Dry Out? N How Many Times?

Observations:
Color: Clear Sheen?: N Odor?: N

Comments:

Personnel: MEF

APPENDIX D

QUALITATIVE EXPOSURE ASSESSMENT

APPENDIX D

QUALITATIVE HUMAN HEALTH EXPOSURE ASSESSMENT for the CAMP PHARSALIA SITE PHARSALIA, NEW YORK

DEC Site No. 7-09-013

February 26, 2003

Prepared for:
New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233-7015

TABLE OF CONTENTS:

1.0 BACKGROUND

Exposure assessment is the process of identifying potential current and future receptors, and characterizing the nature of their contact with a chemical. A qualitative exposure assessment was performed for the Camp Pharsalia site in order to determine potential exposure pathways associated with current site conditions and to evaluate their potential significance.

The qualitative exposure assessment results in the creation of site-specific exposure profiles, which provide the narrative description of the mechanisms by which exposure to contaminants may occur at a site. Chemical, physical, and toxicological parameters for the chemicals of concern are also identified and taken into account when developing the exposure profiles. The potential significance of the identified exposures is evaluated in a qualitative manner.

2.0 EXPOSURE SETTING

The exposure setting is evaluated with respect to both current and potential future land uses of the site and surrounding area in order to aid in the identification of potential receptors, exposure points and exposure pathways.

Camp Pharsalia is a large complex of NYSDEC crew headquarters and an active NYDCS incarceration facility, situated in the town of Pharsalia, Chenango County, NY. The surrounding area is rural, generally consisting of farmland and undeveloped forest. Wood treatment operations were conducted at Camp Pharsalia between 1960 and 1977. The area of concern includes the former wood treatment plant and staging area, which is located immediately northwest of the former treatment plant.

3.0 IDENTIFICATION OF EXPOSURE PATHWAYS

For identified receptors to be exposed to a chemical of concern at the site, a current or reasonable future exposure pathway must be established leading from the source to the

receptor. The exposure pathway is the route that the chemical takes from the source of the material to the receptor of concern. An exposure pathway has five elements:

- a contaminant of significance
- contaminant release and transport mechanisms
- a point of exposure
- a route of exposure
- a potential receptor

An exposure pathway is complete when all five elements of an exposure pathway are documented; a potential exposure pathway exists when any one or more of the five elements comprising an exposure pathway is possible, but not documented. An exposure pathway may be eliminated from further evaluation when any one of the five elements comprising an exposure pathway has not existed in the past, does not exist in the present, and will never exist in the future.

3.1 Source of Contamination

One of the work projects at Camp Pharsalia was the operation of a wood treatment facility and sawmill, which operated between 1960 and 1977. During this time, pentachlorophenol (PCP) was the primary chemical biocide used in treating lumber at the site. During the treatment process, PCP and No. 2 fuel oil were combined in the dip tanks. After treatment, poles were hoisted from the tank and allowed to drip over the tank for a period of time. Poles were then moved to outside the western end of the treatment plant and allowed to dry. They were then moved to a designated treated material storage area, located south of the treatment plant. Therefore, the sources of release to the environment are historical surficial spills of wood treatment products (PCP and fuel oil) to soil.

3.2 Fate and Transport

Contaminant release and transport mechanisms may carry contaminants from the source to points where individuals may be exposed. Chemical migration between media such as soil and groundwater is influenced by chemical parameters such as water solubility or molecular size or shape, in addition to the chemical and physical characteristics particular to a site's media. This

section discusses information about the fate and transport of the source chemicals present at the site.

Pentachlorophenol

Pentachlorophenol is a moderately acidic substance, and thus its fate is strongly influenced by pH. At a neutral pH it is almost completely found in the ionized form, the pentachlorophenate anion, which is much more mobile than PCP (ATSDR, 2000). PCP has a low water solubility and a strong tendency to adsorb onto soil or sediment particles in the environment. Adsorption to soils and sediments is dependent on pH and organic content. Adsorption at a given pH increases with increasing organic content of soil or sediment. No adsorption occurs at pH values above 6.8 (ATSDR, 2000; Howard, 1991). Since it is expected that soils at the site are acidic (less than 7.0) based on soil type (no pH data is available) and soils are low in organic content, (TOC is 0.0439% in SB-11 [8-10']), some adsorption is likely to occur, but it may be limited.

The ionized form of pentachlorophenol may be rapidly photolyzed by sunlight; PCP may also undergo biodegradation by microorganisms, animals, and plants, although degradation is generally slow (Howard, 1991). Given that at expected pH conditions a portion of PCP will be present in the ionized form, photolysis may be an important degradation pathway at this site in shallow soils.

PCP has an octanol-water partition coefficient (Kow) of 100,000 (Howard, 1991), which indicates that it is lipid-soluble and therefore has a tendency to bioaccumulate in organisms. Bioaccumulation is largely pH-dependent, with considerable variation among species. Bioconcentration factors (BCFs) for PCP in aquatic organisms are generally under 1,000, but some studies have reported BCFs up to 10,000. BCFs, however, for earthworms in soil were 3.4-13 (ATSDR, 2000). Significant biomagnification of PCP in either terrestrial or aquatic foodchains, however, has not been demonstrated (ATSDR, 2000).

Pentachlorophenol products often contain chlorophenols, dioxins, and furans. Once released to the environment, the chlorinated dibenzo-p-dioxins (CDDs) and dibenzofurans (CDFs) are persistent and generally adsorb to soil or sediment particles, due to their low water solubilities. Adsorption is generally the predominate fate process affecting these chemicals, with the potential for adsorption related to the organic carbon content. CDDs and CDFs may undergo degradation through biological action or by photolysis, with a half-life ranging from weeks to months. Photolysis and hydrolysis are generally not significant processes, however, as these compounds persist in the adsorbed phase (USEPA, 2002).

Due to their high adsorption rate, CDDs are not expected to leach from soil, although some leaching of disassociated forms of the compound may occur, especially at lower pHs (USEPA, 2002). Since the pH of site soils are not known but are not expected to be highly acidic, leaching of CDDs and CDFs is unlikely. Migration of CDD-contaminated soil may occur through erosion and surface runoff. Upon reaching surface waters, additional adsorption may occur due to the typically higher levels of organic matter content of sediments as compared to surface soils (ATSDR 2000). Volatilization from either subsurface soil or water is not expected to be a major transport pathway, although it may occur from surface soils (ATSDR, 2000). As with PCP and other lipophilic pesticides, CDDs and CDFs tend to bioaccumulate in exposed organisms, with BCFs for aquatic organisms ranging from 5,000 to 10,000 (Montgomery, 1996). Uptake from soil by plants can occur, although it is limited by the strong adsorption of these compounds to soils. BCFs in plants have been measured to be 0.0002, with most accumulation occurring in the roots with little translocated to the foliage (ATSDR, 2000). Terrestrial organisms may accumulate CDDs and CDFs as a result of direct ingestion and contact with soils.

At the Pharsalia site, PCP is expected to be adsorbed to soil organic matter content, although leaching may occur due to the expected pH (slightly acidic) and low organic matter content in site soils (TOC 0.0439% in SB-11 [8-10']). However, leaching is most likely not occurring as there has been no PCP detected in any of the monitoring wells. Some photolysis of PCP from surface soils can be expected. Uptake of PCP from soil by plants or terrestrial organisms may occur, but biomagnification is not expected. CDDs and CDFs are expected to be strongly sorbed to soil, as well as persistent. Leaching of these compounds is likely to be limited. Accumulation of these compounds in plants as a result of root uptake is unlikely to be significant.

Fuel Oil

At the site, PCP was mixed with No. 2 fuel oil for wood treatment application. Fuel oils are mixtures of numerous aliphatic and aromatic hydrocarbons. Individual components of fuel oil include n-alkanes, branched alkanes, benzene and alkylbenzenes, naphthalenes, and PAHs (ATSDR, 2000). Primary constituents identified in soil and/or groundwater at the site are PAHs. Soil adsorption, volatilization to air, and leaching potential depend on a PAH's individual chemical characteristics; however, as a class of compounds, they are generally insoluble in water, with a strong tendency to bind to soil or sediment particles. Some of the lighter-weight PAHs (such as naphthalene, acenaphthene, and phenanthrene) may volatilize from soil or groundwater into the air. Degradation may occur through photolysis, oxidation, biological action, and other mechanisms. Microbial degradation appears to be a major degradation pathway in soil (ATSDR, 2000).

As nonpolar, organic compounds, PAHs may be accumulated in aquatic organisms from water, soil, sediments, and food. BCFs vary among PAHs and receptor species, but in general, bioconcentration is greater for the higher molecular weight compounds than for the lower molecular weight compounds (ATSDR, 2000). BCFs for accumulation of PAHs by plants from soil are low, with values of 0.001 to 0.18 reported for total PAHs (ATSDR, 2000). Accumulation of PAHs from soil by terrestrial organisms is also limited, with BCF values for voles of 12 reported for phenanthrene and 31 for acenapthene.

At this site, PAHs, the primary fuel oil constituents of interest, are expected to be adsorbed to soil, with limited potential for leaching. Microbial degradation may occur, with other degradation processes less important in soil. Uptake of PAHs from soil by terrestrial organisms or plants may occur, but bioconcentration is expected to be limited.

3.3 Points of Exposure

The exposure point is a location where actual or potential human contact with a contaminated medium may occur. Analytical results for samples collected at Camp Pharsalia indicate that soil and to a lesser extent, groundwater, have been impacted by:

- Pentachlorophenol (PCP);
- Polychlorinated dioxins (CDDs) and dibenzofurans (CDFs); and
- Fuel oil.

Analytical results from samples collected across the site indicate that contaminants have been identified in surface soils (0-2 inches bgs) northwest of the treatment plant. Pentachlorophenol was detected at SS-5 to SS-9 at concentrations up to 270 mg/kg, but not at the other 4 shallow soil sampling locations northwest of the treatment plant. Previous investigations showed that soil samples under the building detected PCP up to 330 mg/kg based on immunoassay analysis, with one sample submitted for laboratory analysis showing PCP of 47 mg/kg. Other semi-volatile organic compounds (including polycyclic aromatic hydrocarbons and phthalate esters) were only detected infrequently at estimated concentrations below the reporting limit. Pyrene, however, was detected at concentrations above the reporting limit at SS-5 and SS-6. Polychlorinated dioxins and furans were detected at all surface soil sampling locations, with the highest concentrations at SS-5 and SS-6, the same locations where the highest concentrations of PCP were detected. Metals were detected at all sampling locations, however, concentrations were generally less than or similar to background concentrations in New York State or the eastern United States (NYDEC, 1994). Lead was detected at a concentration of 145 mg/kg at

SS-9, however, this metal is not known to be related to wood treatment activities and may represent natural concentrations.

Subsurface soil samples also showed infrequent detection of SVOCs at, for the most part, estimated concentrations below the reporting limit. PCP was not detected in subsurface soils in this investigation. However, PCP was detected in the previous investigation in Test Pit 9 (PTP-9), west of the treatment plant, at 40 mg/kg and in four sampling locations beneath the treatment plant. Polychlorinated dioxins and furans were detected above the 1 ppb screening level in the sampling locations beneath the treatment plant. Points of exposure for soil are limited to the surface soil west and adjacent to the treatment plant.

Groundwater samples showed low concentrations of a few semi-volatile organic conpounds that were detected at estimated concentrations below the reporting limit. PCP was not detected in any groundwater sample during any sampling event. Fuel oil components were detected in PMW-1, PMW-5 and PMW-6A.

Dioxins and furans were detected above the 0.0007 ng/L 2,3,7,8-TCDD guidance value in the four wells in which they were analyzed (PMW-1, PMW-2, PMW-4, and PMW-5) during the sampling event conducted in 1999. Concentrations ranged from 0.19 ng/L (PMW-5) to 0.00132 ng/L (PMW-2). Groundwater samples from this round were also analyzed for metals. While concentrations were detected above screening criteria, as reported in the Preliminary Investigation Report, they were attributed to background conditions, since they are not known to be site related.

The water supply well used by the facility is located at the site located approximately 250 feet northeast of the treatment plant. It was installed in bedrock at a depth of 300 feet below grade, as compared to the monitoring wells at the site that are screened at depths of 6-16 feet below grade. This well was previously sampled by New York State Department of Health in May 1998 and analyzed for VOCs, SVOCs, pesticides and PCBs, and metals. No volatiles, pesticides, PCP, or PCBs were detected, and does not appear to be impacted by the site. Sampling of this well in June 2001 and analysis for ketones and petroleum products and herbicides (including PCP), confirmed that this well was not impacted by fuel oil or PCP.

3.4 Potential Receptors and Exposure Routes

Exposure assessment includes a description of the potentially exposed persons who live, work, play, visit, or otherwise come to the site or surrounding environment. Consideration is given to

the characteristics of the current populations (including sensitive subpopulations) as well as those of any potential future populations that may be exposed under any reasonable foreseeable future site activities and uses.

Camp Pharsalia is currently maintained as a NYSDEC management area and as a NYSDCS correctional facility, and is located in a heavily wooded, rural area. Inmates at Camp Pharsalia and NYSDEC employees conduct no activities in the impacted area. In fact, inmates have been instructed not to go in this area. This area is, however, currently accessible (i.e. no fence or gate limits access), nor are there any deed restrictions on the property that would restrict future land use. Therefore, the following receptors have been identified for the site under current and reasonable foreseeable future land use scenarios:

Current Use

- Adult inmates and staff at Camp Pharsalia (infrequent); and

Future Use

- Construction workers performing excavation activities
- NYSDEC Maintenance and Operations activities

The route of exposure is the manner in which a contaminant actually enters or contacts the body (i.e., ingestion, inhalation, dermal absorption). Based on the nature of the chemicals of potential concern, the types of media impacted at the site, and land use scenarios, the following exposure routes were identified:

- Direct contact with exposed surficial soil. Exposure routes include incidental ingestion of and dermal contact with impacted soil and the inhalation of particulate-bound contaminants.
- Direct contact with subsurface soil and/or groundwater, although impacts to surface soil are more significant than subsurface soil. Future activities involving excavation in the area of concern may allow exposure to impacted soil and shallow groundwater. Exposure routes include incidental ingestion of and dermal contact with soil and groundwater, and the inhalation of particulate-bound contaminants.
- Direct contact with groundwater used as a future drinking water source. Routes of exposure include ingestion and dermal contact. Currently, there are three active bedrock water supply wells located at the site, upgradient of the area of concern. Samples previously collected from two of these wells confirmed that contaminants related to the wood processing activities were not present at detectable levels, and the third well is located further upgradient. However, there are no restrictions on the property that would limit the future placement of a water supply well in any area of the site.

There is some potential for the uptake of site contaminants (PCP and dioxins) by terrestrial organisms that may then be consumed as game species. Terrestrial game likely to be hunted in this area would include species such as white-tailed deer and turkey. Both species consume vegetation; additionally, turkeys are opportunistic feeders that will also include invertebrates to their diet. As discussed above, uptake by plants from soil is not expected to result in significant bioaccumulation in plants. In addition, the area of impact is small relative to the expected home range of these two species. White-tailed deer have a home range of 120 to 400 acres (Burnett et al. 2002), while turkey can have a home range of 1000 acres or more (North Caroline State University 1995). Any contribution of site-related contaminants to the body burden of these species is, therefore, expected to be insignificant.

4.0 CONCLUSIONS

Complete exposure pathways have been identified for potential current and future human receptors based on exposure to contaminated soil and groundwater, although such exposures are expected to be very infrequent. The impacted area (PCP and dioxins and furans) is located under the treatment plant and in a small area of surface soils west of the treatment plant. Due to the narrow area of known contamination and the fact that the treatment plant is abandoned, under current conditions, prison inmates, NYSDEC and NYSDCSS staff, are unlikely to be present in impacted areas.

Concentrations of PCP are above the NYSDOH guidance value for human health of 20 mg/kg at SS-5 and SS-6, and at previous sampling locations in the same area PSS-1 and PSS-3 (immunoassay results). Concentrations of dioxins (as 2,3,7,8-TCDD equivalents) are above the criteria of 1 ug/kg that NYSDEC has used at other sites at SS-5, SS-6, SS-8, and SS-9.

While no site background has been established for metals has been established at this site, background samples taken at Camp Georgetown were used as a point of comparison. Concentrations of lead at several locations are above background concentrations found at Georgetown (7.1 to 16.6 mg/kg), with the maximum detected concentration of 145 mg/kg at SS-9. The presence of lead is unlikely to be related to site releases of wood preservatives, since it was not used at the site, nor does it appear to be related to any fuel oil release based on the low concentrations of PAHs in surface soil. Concentrations of other metals are below the soil cleanup objective or within the range of background concentrations specified in TAGM 4046 (NYSDEC, 1995), and background concentrations at Georgetown.

Given the limited potential for exposure to soil and the relatively small size of the areas where concentrations exceed standards, potential site exposures are unlikely to pose a significant risk to human health under current use. In addition, the soil standards are based on long-term exposure on a frequent basis. Actual exposures at this site are very infrequent, and not likely to occur over an extended period of time. Site concentrations may pose a significant risk in the future if site use were to change, resulting in increased exposure to the area of concern.

Groundwater concentrations of SVOCs from the recent round of sampling were all below either applicable groundwater criteria or standards (NYSDEC, 1998). The concentration of heptachlor epoxide at PMW-4 of 0.11 ug/L was above the groundwater standard of 0.03 ug/L. This pesticide was not detected in any other groundwater sample, nor is it known to be site-related. Historic concentrations of dioxins and furans in the monitoring wells in 1999 were higher than the groundwater standard of 0.0007 ng/L 2,3,7,8-TCDD equivalents. However, no dioxins were detected in the monitoring wells above the 0.0007 ng/L guidance value during the most recent round of groundwater sampling. Also, PCP was not detected in any of the wells in any round of sampling, making the origin of the dioxin congeners unclear. Since there is no use of shallow groundwater for drinking water purposes, the historic presence of dioxins and furans in groundwater does not pose a risk to human health under current use. Site groundwater concentrations may pose a risk in the future if shallow groundwater at the site were to be used for drinking water purposes.

5.0 REFERENCES

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APPENDIX E

DATA USABILITY SUMMARY REPORT

DATA REVIEW SUMMARY REPORT

for

THE SHAW GROUP
Environmental & Infrastructure

Latham, New York

NYSDEC - Camp Pharsalia Site

SDG No. A01-C279

Prepared By: Environmental Quality Associates, Inc.

July 24, 2002

The Shaw Group, Environmental & Infrastructure
Att: Tanjia Maynard, Project Manager
13 British – American Boulevard
Latham, New York 12110

Re: NYSDEC / Camp Pharsalia Laboratory Analytical Data

Dear Ms. Maynard,

This cover letter, and the attached documents, detail the data validation findings associated with the following sample analytical results contained in the above-referenced deliverables set.

Site Name: Camp Pharsalia

Fractions

Semi-Volatiles, 8270		Laboratory:	Severn Trent
SDG No.: A01-C279		Matrix:	Aqueous
Pesticide / PCBs, 8081 / 8082		Laboratory:	Severn Trent
SDG No.: A01-C279		Matrix:	Aqueous

Reviewer: Chris Taylor

Prepared by: Environmental Quality Associates, Inc.

SECTION A
Sample Information

The above-noted project samples were analyzed by Severn Trent Laboratories, Inc., Amherst, NY. Semi-volatile Organics were analyzed by USEPA SW-846 Method 8270, and Pesticide/PCB Organics were analyzed by USEPA SW-846 Methods 8081 and 8082, respectively.

A summary table of samples analyzed is presented below; samples listed are exclusive of MS / MSD analyses performed.

It is noted that the cover letter of the laboratory narrative contained on the reviewer's CD-ROM associated with this SDG contained several errors, as follow: (1) the SDG was incorrectly referenced as A01-B882, rather than A01-C279; (2) the matrix was incorrectly identified as soil, rather than water; (3) the Project Name was incorrectly identified as Camp Summit, rather than Camp Pharsalia; (4) the dates of sample collection and receipt were incorrect. Other information within the narrative was correct, based on review of the chain-of-custody and other supporting raw data.

All samples were received at 11 degrees C, which exceeds the industry-standard sample temperature range of 4 +/- 2 degrees C; therefore, all reported results for all organic fractions were qualified 'UJ' or 'J', with potential negative bias suggested. It is noted that the laboratory has no control over over sample shipping and preservation practices, unless the samples are collected by laboratory staff. Proper sample preservation practices should be reviewed with the sample collection staff.

Sample ID	Lab ID	Matrix	Date Collected	Analyses	
				Semi-VOA	Pesticides / PCBs
EQUIPMENT BLANK	A1C27902	A	12/06/01	X	X
MW-1	A1C27903	A	12/06/01	X	X
MW-2	A1C27904	A	12/06/01	X	X
MW-3	A1C27905	A	12/06/01	X	X
MW-4	A1C27906	A	12/06/01	X	X
MW-5	A1C27907	A	12/06/01	X	X
MW-500	A1C27908	A	12/06/01	X	X
WASTE DISPOSAL	A1C27901	A	12/06/01	X	X
A = Aqueous Matrix			Total Samples =	8	8

SECTION B
Semi-volatile Fraction (8270)

Several target compounds exceeded the maximum %RSD value of 15.0% during the initial calibration sequences; since none of these compounds were positive in associated samples, no data qualifiers were necessary.

The %D for 2,4-dinitrophenol in the continuing calibration of 12/20/01 exceeded 20.0%; this compound was qualified (U) 'J', as quantitatively estimated, in all associated samples.

Blank spike recoveries were within acceptable limits. It is noted that the laboratory used the CLP spike compound set in matrix and blank spike samples. SW-846 protocol calls for spiking with all compounds of interest, generally taken to mean all method target compounds being reported. Also, the laboratory is reporting the same recovery limits for both matrix and blank spikes, whereas blank spikes should have a tighter recovery range based upon absence of matrix effects. Although no data qualifiers are warranted based on these protocol excursions, the laboratory should take steps to ensure that method requirements are followed.

SECTION C
Pesticide Fraction (8081)

All samples were extracted and analyzed within NYSDEC-ASP holding times.

The laboratory utilized linear regression for the initial calibration sequence; all correlation coefficients were above the required minimum value of 0.99. The %Ds for 4,4'-DDE, Endosulfan I, delta-BHC and Methoxychlor exceeded 15.0% in the calibration verification standards (CCV); these analytes were qualified (U) 'J' in associated samples.

SECTION D
PCB Fraction (8082)

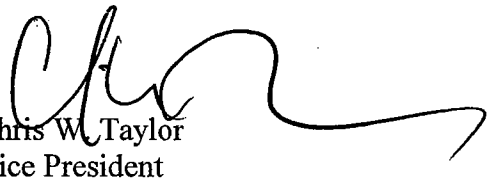
All samples were extracted and analyzed within NYSDEC-ASP holding times.

The laboratory utilized linear regression for the initial calibration sequence; all correlation coefficients were above the required minimum value of 0.99. All associated CCV %Ds were below 15.0%. No positive Aroclors were reported.

SECTION E
Overall Recommendations

The results of the review and validation process for the above organic fraction and associated samples are summarized on the attached QC Summary Tables, in order to facilitate the end-user's' review of these data.

Very truly yours,
Environmental Quality Associates, Inc.



Chris W. Taylor
Vice President

Attachments

REVIEWED & QUALIFIED
ANALYTE SUMMARY FORMS

Camp Pharsalia Site

SDG No. A01-C279

Environmental Quality Associates, Inc.

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

000019

Client No.

EQUIPMENT BLANK

Lab Name: STL Buffalo Contract: _____

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

Matrix: (soil/water) WATER Lab Sample ID: A1C27902

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: W46154.RR

Level: (low/med) LOW Date Samp/Recv: 12/06/2001 12/08/2001

% Moisture: _____ decanted: (Y/N) N Date Extracted: 12/12/2001

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/19/2001

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
83-32-9	Acenaphthene	10	U
208-96-8	Acenaphthylene	10	U
120-12-7	Anthracene	10	U
56-55-3	Benzo(a)anthracene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
191-24-2	Benzo(ghi)perylene	10	U
50-32-8	Benzo(a)pyrene	10	U
65-85-0	Benzoic acid	50	U
100-51-6	Benzyl alcohol	20	U
111-91-1	Bis(2-chloroethoxy) methane	10	U
111-44-4	Bis(2-chloroethyl) ether	10	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	10	U
117-81-7	Bis(2-ethylhexyl) phthalate	10	U
101-55-3	4-Bromophenyl phenyl ether	10	U
85-68-7	Butyl benzyl phthalate	10	U
106-47-8	4-Chloroaniline	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-58-7	2-Chloronaphthalene	10	U
95-57-8	2-Chlorophenol	10	U
7005-72-3	4-Chlorophenyl phenyl ether	10	U
218-01-9	Chrysene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
132-64-9	Dibenzofuran	10	U
84-74-2	Di-n-butyl phthalate	10	U
95-50-1	1,2-Dichlorobenzene	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
120-83-2	2,4-Dichlorophenol	10	U
84-66-2	Diethyl phthalate	10	U
105-67-9	2,4-Dimethylphenol	10	U

J

CWT 01/24/02

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

000020
Client No.

EQUIPMENT BLANK

Lab Name: STL Buffalo Contract: _____

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

Matrix: (soil/water) WATER Lab Sample ID: A1C27902

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: W46154.RR

Level: (low/med) LOW Date Samp/Recv: 12/06/2001 12/08/2001

% Moisture: _____ decanted: (Y/N) N Date Extracted: 12/12/2001

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/19/2001

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
131-11-3	Dimethyl phthalate	10	U
534-52-1	4,6-Dinitro-2-methylphenol	50	U
51-28-5	2,4-Dinitrophenol	50	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
117-84-0	Di-n-octyl phthalate	10	U
206-44-0	Fluoranthene	10	U
86-73-7	Fluorene	10	U
118-74-1	Hexachlorobenzene	10	U
87-68-3	Hexachlorobutadiene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
67-72-1	Hexachloroethane	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
78-59-1	Isophorone	10	U
91-57-6	2-Methylnaphthalene	10	U
95-48-7	2-Methylphenol	10	U
106-44-5	4-Methylphenol	10	U
91-20-3	Naphthalene	10	U
88-74-4	2-Nitroaniline	50	U
99-09-2	3-Nitroaniline	50	U
100-01-6	4-Nitroaniline	50	U
98-95-3	Nitrobenzene	10	U
88-75-5	2-Nitrophenol	10	U
100-02-7	4-Nitrophenol	50	U
86-30-6	N-nitrosodiphenylamine	10	U
621-64-7	N-Nitroso-Di-n-propylamine	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
108-95-2	Phenol	10	U
129-00-0	Pyrene	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
95-95-4	2,4,5-Trichlorophenol	10	U

Cwt 07/24/02

METHOD 8270 - TCL, SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

000021

Client No.

EQUIPMENT BLANK

Lab Name: STL Buffalo Contract: _____

Lab Code: RFCNY Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER

Lab Sample ID: A1C27902

Sample wt/vol: 1000.0 (g/mL) ML

Lab File ID: W46154.RR

Level: (low/med) LOW

Date Samp/Recv: 12/06/2001 12/08/2001

% Moisture: _____ decanted: (Y/N) N

Date Extracted: 12/12/2001

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 12/19/2001

Injection Volume: 1.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
88-06-2	2,4,6-Trichlorophenol	10	U

CWC 07/24/06

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
TENTATIVELY IDENTIFIED COMPOUNDS

000022

Client No.

EQUIPMENT BLANK

ab Name: STL Buffalo Contract: _____

ab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

atrix: (soil/water) WATER

Lab Sample ID: A1C27902

mple wt/vol: 1000.0 (g/mL) ML

Lab File ID: W46154.RR

evel: (low/med) LOW

Date Samp/Recv: 12/06/2001 12/08/2001

Moisture: _____ decanted: (Y/N) N

Date Extracted: 12/12/2001

ncentrated Extract Volume: 1000 (uL)

Date Analyzed: 12/19/2001

jection Volume: 1.00 (uL)

Dilution Factor: 1.00

C Cleanup: (Y/N) N pH: 7.0

mber TICs found: 0

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

CAS NO.	Compound Name	RT	Est. Conc.	Q

FORM IF - GC/MS SVOA TIC

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

Client No.

MW-1

ab Name: STL Buffalo Contract: ________

ab Code: RECNY Case No.: ____ SAS No.: ____ SDG No.: ____

atrix: (soil/water) WATER Lab Sample ID: A1C27903

mple wt/vol: 1000.0 (g/mL) ML Lab File ID: W46155.RR

evel: (low/med) LOW Date Samp/Recv: 12/06/2001 12/08/2001

Moisture: ____ decanted: (Y/N) N Date Extracted: 12/12/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/19/2001

njection Volume: 1.00 (uL) Dilution Factor: 1.00

C Cleanup: (Y/N) N pH: 6.0

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

CAS NO.	COMPOUND	UG/L	Q
83-32-9	Acenaphthene	10	U
208-96-8	Acenaphthylene	10	U
120-12-7	Anthracene	10	U
56-55-3	Benzo(a)anthracene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
191-24-2	Benzo(ghi)perylene	10	U
50-32-8	Benzo(a)pyrene	10	U
65-85-0	Benzoic acid	50	U
100-51-6	Benzyl alcohol	20	U
111-91-1	Bis(2-chloroethoxy) methane	10	U
111-44-4	Bis(2-chloroethyl) ether	10	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	10	U
117-81-7	Bis(2-ethylhexyl) phthalate	10	U
101-55-3	4-Bromophenyl phenyl ether	10	U
85-68-7	Butyl benzyl phthalate	10	U
106-47-8	4-Chloroaniline	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-58-7	2-Chloronaphthalene	10	U
95-57-8	2-Chlorophenol	10	U
7005-72-3	4-Chlorophenyl phenyl ether	10	U
218-01-9	Chrysene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
132-64-9	Dibenzofuran	10	U
84-74-2	Di-n-butyl phthalate	10	U
95-50-1	1,2-Dichlorobenzene	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
120-83-2	2,4-Dichlorophenol	10	U
84-66-2	Diethyl phthalate	10	U
105-67-9	2,4-Dimethylphenol	10	U

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

000024

Client No.

MW-1

ab Name: STL Buffalo Contract: _____

ab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

atrix: (soil/water) WATER Lab Sample ID: A1C27903

ample wt/vol: 1000.0 (g/mL) ML Lab File ID: W46155.RR

evel: (low/med) LOW Date Samp/Recv: 12/06/2001 12/08/2001

Moisture: _____ decanted: (Y/N) N Date Extracted: 12/12/2001

oncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/19/2001

njection Volume: 1.00 (uL) Dilution Factor: 1.00

PC Cleanup: (Y/N) N pH: 6.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
131-11-3	Dimethyl phthalate	10	U
534-52-1	4,6-Dinitro-2-methylphenol	50	U
51-28-5	2,4-Dinitrophenol	50	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
117-84-0	Di-n-octyl phthalate	1	J
206-44-0	Fluoranthene	10	U
86-73-7	Fluorene	10	U
118-74-1	Hexachlorobenzene	10	U
87-68-3	Hexachlorobutadiene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
67-72-1	Hexachloroethane	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
78-59-1	Isophorone	10	U
91-57-6	2-Methylnaphthalene	10	U
95-48-7	2-Methylphenol	10	U
106-44-5	4-Methylphenol	10	U
91-20-3	Naphthalene	10	U
88-74-4	2-Nitroaniline	50	U
99-09-2	3-Nitroaniline	50	U
100-01-6	4-Nitroaniline	50	U
98-95-3	Nitrobenzene	10	U
88-75-5	2-Nitrophenol	10	U
100-02-7	4-Nitrophenol	50	U
86-30-6	N-nitrosodiphenylamine	10	U
621-64-7	N-Nitroso-Di-n-propylamine	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
108-95-2	Phenol	10	U
129-00-0	Pyrene	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
95-95-4	2,4,5-Trichlorophenol	10	U

FORM I - GC/MS BNA

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

000025

Client No.

MW-1

Lab Name: STL Buffalo Contract: _____

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

Matrix: (soil/water) WATER Lab Sample ID: A1C27903

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: W46155.RR

Level: (low/med) LOW Date Samp/Recv: 12/06/2001 12/08/2001

% Moisture: ____ decanted: (Y/N) N Date Extracted: 12/12/2001

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/19/2001

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 6.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
88-06-2	2,4,6-Trichlorophenol	10	U

OUT 12/21/01

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
TENTATIVELY IDENTIFIED COMPOUNDS

000026
Client No.

MW-1

ab Name: STL Buffalo Contract: _____

ab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

atrix: (soil/water) WATER Lab Sample ID: A1C27903

ample wt/vol: 1000.0 (g/mL) ML Lab File ID: W46155.RR

evel: (low/med) LOW Date Samp/Recv: 12/06/2001 12/08/2001

Moisture: _____ decanted: (Y/N) N Date Extracted: 12/12/2001

oncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/19/2001

njection Volume: 1.00 (uL) Dilution Factor: 1.00

C Cleanup: (Y/N) N pH: 6.0

mber TICs found: 4 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	Compound Name	RT	Est. Conc.	Q
1.	UNKNOWN ORGANIC	3.20	10	~~J~~ U
2.	UNKNOWN ORGANIC	7.63	10	J
3.	UNKNOWN ORGANIC	17.80	11	J
4.	UNKNOWN ORGANIC	27.68	7	J

Cont. blk

FORM IF - GC/MS SVOA TIC

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

000027

Client No.

MW-2

Lab Name: STL Buffalo Contract: _____

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

Matrix: (soil/water) WATER Lab Sample ID: A1C27904

Sample wt/vol: 1020.0 (g/mL) ML Lab File ID: W46158.RR

Level: (low/med) LOW Date Samp/Recv: 12/06/2001 12/08/2001

% Moisture: _____ decanted: (Y/N) N Date Extracted: 12/12/2001

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/19/2001

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
83-32-9	Acenaphthene	10	U
208-96-8	Acenaphthylene	10	U
120-12-7	Anthracene	10	U
56-55-3	Benzo(a)anthracene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
191-24-2	Benzo(ghi)perylene	10	U
50-32-8	Benzo(a)pyrene	10	U
65-85-0	Benzoic acid	50	U
100-51-6	Benzyl alcohol	20	U
111-91-1	Bis(2-chloroethoxy) methane	10	U
111-44-4	Bis(2-chloroethyl) ether	10	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	10	U
117-81-7	Bis(2-ethylhexyl) phthalate	10	U
101-55-3	4-Bromophenyl phenyl ether	10	U
85-68-7	Butyl benzyl phthalate	10	U
106-47-8	4-Chloroaniline	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-58-7	2-Chloronaphthalene	10	U
95-57-8	2-Chlorophenol	10	U
7005-72-3	4-Chlorophenyl phenyl ether	10	U
218-01-9	Chrysene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
132-64-9	Dibenzofuran	10	U
84-74-2	Di-n-butyl phthalate	10	U
95-50-1	1,2-Dichlorobenzene	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
120-83-2	2,4-Dichlorophenol	10	U
84-66-2	Diethyl phthalate	10	U
105-67-9	2,4-Dimethylphenol	10	U

CWT 01/14/02

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

000028

Client No.

MW-2

Lab Name: STL Buffalo Contract: _____

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

Matrix: (soil/water) WATER Lab Sample ID: A1C27904

Sample wt/vol: 1020.0 (g/mL) ML Lab File ID: W46158.RR

Level: (low/med) LOW Date Samp/Recv: 12/06/2001 12/08/2001

% Moisture: _____ decanted: (Y/N) N Date Extracted: 12/12/2001

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/19/2001

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
131-11-3	Dimethyl phthalate	10	U
534-52-1	4,6-Dinitro-2-methylphenol	50	U
51-28-5	2,4-Dinitrophenol	50	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
117-84-0	Di-n-octyl phthalate	10	U
206-44-0	Fluoranthene	10	U
86-73-7	Fluorene	10	U
118-74-1	Hexachlorobenzene	10	U
87-68-3	Hexachlorobutadiene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
67-72-1	Hexachloroethane	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
78-59-1	Isophorone	10	U
91-57-6	2-Methylnaphthalene	10	U
95-48-7	2-Methylphenol	10	U
106-44-5	4-Methylphenol	10	U
91-20-3	Naphthalene	10	U
88-74-4	2-Nitroaniline	50	U
99-09-2	3-Nitroaniline	50	U
100-01-6	4-Nitroaniline	50	U
98-95-3	Nitrobenzene	10	U
88-75-5	2-Nitrophenol	10	U
100-02-7	4-Nitrophenol	50	U
86-30-6	N-nitrosodiphenylamine	10	U
621-64-7	N-Nitroso-Di-n-propylamine	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
108-95-2	Phenol	10	U
129-00-0	Pyrene	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
95-95-4	2,4,5-Trichlorophenol	10	U

J

cut off 4/10

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

000029

Client No.

MW-2

ab Name: STL Buffalo Contract: _____

ab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

atrix: (soil/water) WATER Lab Sample ID: A1C27904

mple wt/vol: 1020.0 (g/mL) ML Lab File ID: W46158.RR

evel: (low/med) LOW Date Samp/Recv: 12/06/2001 12/08/2001

Moisture: _____ decanted: (Y/N) N Date Extracted: 12/12/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/19/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

C Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
88-06-2	2,4,6-Trichlorophenol	10	UJ

CWS 01/24/02

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
TENTATIVELY IDENTIFIED COMPOUNDS

000030
Client No.

MW-2

ab Name: STL Buffalo Contract: _____

ab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

atrix: (soil/water) WATER Lab Sample ID: A1C27904

ample wt/vol: 1020.0 (g/mL) ML Lab File ID: W46158.RR

evel: (low/med) LOW Date Samp/Recv: 12/06/2001 12/08/2001

Moisture: _____ decanted: (Y/N) N Date Extracted: 12/12/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/19/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

C Cleanup: (Y/N) N pH: 7.0

mber TICs found: 9 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NO.	Compound Name	RT	Est. Conc.	Q
1.		UNKNOWN ORGANIC	3.20	4	J
2.		UNKNOWN ORGANIC	17.80	9	J
3.		UNKNOWN ORGANIC	25.08	7	J
4.		UNKNOWN ORGANIC	27.61	7	J
5.		UNKNOWN ORGANIC	27.68	10	J
6.		UNKNOWN ORGANIC	29.93	9	J
7.		UNKNOWN ORGANIC	31.55	8	J
8.		UNKNOWN ORGANIC	32.03	4	J
9.		UNKNOWN ORGANIC	33.50	7	J

FORM IF - GC/MS SVOA TIC

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

000031
Client No.

MW-3

Lab Name: STL Buffalo Contract: _____

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

Matrix: (soil/water) WATER Lab Sample ID: A1C27905

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: W46162.RR

Level: (low/med) LOW Date Samp/Recv: 12/06/2001 12/08/2001

% Moisture: ____ decanted: (Y/N) N Date Extracted: 12/12/2001

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/20/2001

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
83-32-9	Acenaphthene	10	U
208-96-8	Acenaphthylene	10	U
120-12-7	Anthracene	10	U
56-55-3	Benzo(a)anthracene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
191-24-2	Benzo(ghi)perylene	10	U
50-32-8	Benzo(a)pyrene	10	U
65-85-0	Benzoic acid	50	U
100-51-6	Benzyl alcohol	20	U
111-91-1	Bis(2-chloroethoxy) methane	10	U
111-44-4	Bis(2-chloroethyl) ether	10	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	10	U
117-81-7	Bis(2-ethylhexyl) phthalate	10	U
101-55-3	4-Bromophenyl phenyl ether	10	U
85-68-7	Butyl benzyl phthalate	10	U
106-47-8	4-Chloroaniline	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-58-7	2-Chloronaphthalene	10	U
95-57-8	2-Chlorophenol	10	U
7005-72-3	4-Chlorophenyl phenyl ether	10	U
218-01-9	Chrysene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
132-64-9	Dibenzofuran	10	U
84-74-2	Di-n-butyl phthalate	10	U
95-50-1	1,2-Dichlorobenzene	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
120-83-2	2,4-Dichlorophenol	10	U
84-66-2	Diethyl phthalate	10	U
105-67-9	2,4-Dimethylphenol	10	U

J

and others

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

Client No.: MW-3

Lab Name: STL Buffalo Contract: _____

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

Matrix: (soil/water) WATER Lab Sample ID: A1C27905

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: W46162.RR

Level: (low/med) LOW Date Samp/Recv: 12/06/2001 12/08/2001

% Moisture: _____ decanted: (Y/N) N Date Extracted: 12/12/2001

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/20/2001

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
131-11-3	Dimethyl phthalate	10	U
534-52-1	4,6-Dinitro-2-methylphenol	50	U
51-28-5	2,4-Dinitrophenol	50	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
117-84-0	Di-n-octyl phthalate	0.7	J
206-44-0	Fluoranthene	10	U
86-73-7	Fluorene	10	U
118-74-1	Hexachlorobenzene	10	U
87-68-3	Hexachlorobutadiene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
67-72-1	Hexachloroethane	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
78-59-1	Isophorone	10	U
91-57-6	2-Methylnaphthalene	10	U
95-48-7	2-Methylphenol	10	U
106-44-5	4-Methylphenol	10	U
91-20-3	Naphthalene	10	U
88-74-4	2-Nitroaniline	50	U
99-09-2	3-Nitroaniline	50	U
100-01-6	4-Nitroaniline	50	U
98-95-3	Nitrobenzene	10	U
88-75-5	2-Nitrophenol	10	U
100-02-7	4-Nitrophenol	50	U
86-30-6	N-nitrosodiphenylamine	10	U
621-64-7	N-Nitroso-Di-n-propylamine	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
108-95-2	Phenol	10	U
129-00-0	Pyrene	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
95-95-4	2,4,5-Trichlorophenol	10	U

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

Client No.

MW-3

Lab Name: STL Buffalo Contract: _____

Lab Code: RFCNY Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: A1C27905

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: W46162.RR

Level: (low/med) LOW Date Samp/Recv: 12/06/2001 12/08/2001

% Moisture: _____ decanted: (Y/N) N Date Extracted: 12/12/2001

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/20/2001

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
88-06-2	2,4,6-Trichlorophenol	10	U J

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METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
TENTATIVELY IDENTIFIED COMPOUNDS

000034

Client No.

MW-3

ab Name: STL Buffalo Contract: _____

ab Code: RECNY Case No.: ____ SAS No.: _____ SDG No.: _____

atrix: (soil/water) WATER

mple wt/vol: 1000.0 (g/mL) ML

vel: (low/med) LOW

Moisture: _____ decanted: (Y/N) N

ncentrated Extract Volume: 1000 (uL)

jection Volume: 1.00 (uL)

C Cleanup: (Y/N) N pH: 7.0

Lab Sample ID: A1C27905

Lab File ID: W46162.RR

Date Samp/Recv: 12/06/2001 12/08/2001

Date Extracted: 12/12/2001

Date Analyzed: 12/20/2001

Dilution Factor: 1.00

mber TICs found: 5

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

	CAS NO.	Compound Name	RT	Est. Conc.	Q
1.	90-43-7	O-HYDROXYBIPHENYL	17.78	10	JN
2.		UNKNOWN HYDROCARBON	27.21	4	J
3.		UNKNOWN HYDROCARBON	27.66	16	J
4.		UNKNOWN HYDROCARBON	29.91	6	J
5.		UNKNOWN HYDROCARBON	31.60	11	J

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

000035

Client No.

MW-4

Lab Name: STL Buffalo Contract: _____

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

Matrix: (soil/water) WATER Lab Sample ID: A1C27906

Sample wt/vol: 1040.0 (g/mL) ML Lab File ID: W46163.RR

Level: (low/med) LOW Date Samp/Recv: 12/06/2001 12/08/2001

% Moisture: _____ decanted: (Y/N) N Date Extracted: 12/12/2001

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/20/2001

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
83-32-9	Acenaphthene	10	U
208-96-8	Acenaphthylene	10	U
120-12-7	Anthracene	10	U
56-55-3	Benzo(a)anthracene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
191-24-2	Benzo(ghi)perylene	10	U
50-32-8	Benzo(a)pyrene	10	U
65-85-0	Benzoic acid	50	U
100-51-6	Benzyl alcohol	20	U
111-91-1	Bis(2-chloroethoxy) methane	10	U
111-44-4	Bis(2-chloroethyl) ether	10	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	10	U
117-81-7	Bis(2-ethylhexyl) phthalate	10	U
101-55-3	4-Bromophenyl phenyl ether	10	U
85-68-7	Butyl benzyl phthalate	10	U
106-47-8	4-Chloroaniline	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-58-7	2-Chloronaphthalene	10	U
95-57-8	2-Chlorophenol	10	U
7005-72-3	4-Chlorophenyl phenyl ether	10	U
218-01-9	Chrysene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
132-64-9	Dibenzofuran	10	U
84-74-2	Di-n-butyl phthalate	10	U
95-50-1	1,2-Dichlorobenzene	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
120-83-2	2,4-Dichlorophenol	10	U
84-66-2	Diethyl phthalate	10	U
105-67-9	2,4-Dimethylphenol	10	U

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METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

000036

Client No.

MW-4

Lab Name: STL Buffalo Contract: _____

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

Matrix: (soil/water) WATER Lab Sample ID: A1C27906

Sample wt/vol: 1040.0 (g/mL) ML Lab File ID: W46163.RR

Level: (low/med) LOW Date Samp/Recv: 12/06/2001 12/08/2001

% Moisture: ____ decanted: (Y/N) N Date Extracted: 12/12/2001

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/20/2001

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L		Q
131-11-3	Dimethyl phthalate	10	U	J
534-52-1	4,6-Dinitro-2-methylphenol	50	U	
51-28-5	2,4-Dinitrophenol	50	U	J
121-14-2	2,4-Dinitrotoluene	10	U	
606-20-2	2,6-Dinitrotoluene	10	U	
117-84-0	Di-n-octyl phthalate	10	U	
206-44-0	Fluoranthene	10	U	
86-73-7	Fluorene	10	U	
118-74-1	Hexachlorobenzene	10	U	
87-68-3	Hexachlorobutadiene	10	U	
77-47-4	Hexachlorocyclopentadiene	10	U	
67-72-1	Hexachloroethane	10	U	
193-39-5	Indeno(1,2,3-cd)pyrene	10	U	
78-59-1	Isophorone	10	U	
91-57-6	2-Methylnaphthalene	10	U	
95-48-7	2-Methylphenol	10	U	
106-44-5	4-Methylphenol	10	U	
91-20-3	Naphthalene	10	U	
88-74-4	2-Nitroaniline	10	U	J
99-09-2	3-Nitroaniline	50	U	
100-01-6	4-Nitroaniline	50	U	
98-95-3	Nitrobenzene	50	U	
88-75-5	2-Nitrophenol	10	U	
100-02-7	4-Nitrophenol	10	U	
86-30-6	N-nitrosodiphenylamine	50	U	
621-64-7	N-Nitroso-Di-n-propylamine	10	U	
87-86-5	Pentachlorophenol	10	U	
85-01-8	Phenanthrene	50	U	
108-95-2	Phenol	10	U	
129-00-0	Pyrene	10	U	
120-82-1	1,2,4-Trichlorobenzene	10	U	
95-95-4	2,4,5-Trichlorophenol	10	U	

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METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

000037

Client No.

MW-4

Lab Name: STL Buffalo Contract: _____

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

Matrix: (soil/water) WATER Lab Sample ID: A1C27906

Sample wt/vol: 1040.0 (g/mL) ML Lab File ID: W46163.RR

Level: (low/med) LOW Date Samp/Recv: 12/06/2001 12/08/2001

% Moisture: _____ decanted: (Y/N) N Date Extracted: 12/12/2001

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/20/2001

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
88-06-2	2,4,6-Trichlorophenol	10	U J

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FORM I - GC/MS BNA

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
TENTATIVELY IDENTIFIED COMPOUNDS

000038

Client No.

MW-4

ab Name: STL Buffalo Contract: _____

ab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

atrix: (soil/water) WATER Lab Sample ID: A1C27906

mple wt/vol: 1040.0 (g/mL) ML Lab File ID: W46163.RR

evel: (low/med) LOW Date Samp/Recv: 12/06/2001 12/08/2001

Moisture: _____ decanted: (Y/N) N Date Extracted: 12/12/2001

ncentrated Extract Volume: 1.000 (uL) Date Analyzed: 12/20/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

C Cleanup: (Y/N) N pH: 7.0

mber TICs found: 4 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NO.	Compound Name	RT	Est. Conc.	Q
1.	90-43-7	O-HYDROXYBIPHENYL	17.78	8	JN
2.		UNKNOWN HYDROCARBON	27.60	4	J
3.		UNKNOWN HYDROCARBON	27.66	7	J
4.		UNKNOWN HYDROCARBON	29.91	8	J

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

000039
Client No.

MW-5

Lab Name: STL Buffalo Contract: _____

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

Matrix: (soil/water) WATER Lab Sample ID: A1C27907

Sample wt/vol: 1035.0 (g/mL) ML Lab File ID: W46164.RR

Level: (low/med) LOW Date Samp/Recv: 12/06/2001 12/08/2001

% Moisture: _____ decanted: (Y/N) N Date Extracted: 12/12/2001

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/20/2001

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 8.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
83-32-9	Acenaphthene	10	U
208-96-8	Acenaphthylene	10	U
120-12-7	Anthracene	0.5	J
56-55-3	Benzo(a)anthracene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
191-24-2	Benzo(ghi)perylene	10	U
50-32-8	Benzo(a)pyrene	10	U
65-85-0	Benzoic acid	50	U
100-51-6	Benzyl alcohol	20	U
111-91-1	Bis(2-chloroethoxy) methane	10	U
111-44-4	Bis(2-chloroethyl) ether	10	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	10	U
117-81-7	Bis(2-ethylhexyl) phthalate	10	U
101-55-3	4-Bromophenyl phenyl ether	10	U
85-68-7	Butyl benzyl phthalate	10	U
106-47-8	4-Chloroaniline	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-58-7	2-Chloronaphthalene	10	U
95-57-8	2-Chlorophenol	10	U
7005-72-3	4-Chlorophenyl phenyl ether	10	U
218-01-9	Chrysene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
132-64-9	Dibenzofuran	10	U
84-74-2	Di-n-butyl phthalate	10	U
95-50-1	1,2-Dichlorobenzene	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
120-83-2	2,4-Dichlorophenol	10	U
84-66-2	Diethyl phthalate	10	U
105-67-9	2,4-Dimethylphenol	10	U

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METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

000040
Client No.

MW-5

Lab Name: STL Buffalo Contract: _____

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

Matrix: (soil/water) WATER Lab Sample ID: A1C27907

Sample wt/vol: 1035.0 (g/mL) ML Lab File ID: W46164.RR

Level: (low/med) LOW Date Samp/Recv: 12/06/2001 12/08/2001

% Moisture: ____ decanted: (Y/N) N Date Extracted: 12/12/2001

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/20/2001

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 8.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
131-11-3	Dimethyl phthalate	10	U
534-52-1	4,6-Dinitro-2-methylphenol	50	U
51-28-5	2,4-Dinitrophenol	50	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
117-84-0	Di-n-octyl phthalate	10	U
206-44-0	Fluoranthene	10	U
86-73-7	Fluorene	10	U
118-74-1	Hexachlorobenzene	10	U
87-68-3	Hexachlorobutadiene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
67-72-1	Hexachloroethane	2	J
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
78-59-1	Isophorone	10	U
91-57-6	2-Methylnaphthalene	10	U
95-48-7	2-Methylphenol	10	U
106-44-5	4-Methylphenol	10	U
91-20-3	Naphthalene	10	U
88-74-4	2-Nitroaniline	50	U
99-09-2	3-Nitroaniline	50	U
100-01-6	4-Nitroaniline	50	U
98-95-3	Nitrobenzene	10	U
88-75-5	2-Nitrophenol	10	U
100-02-7	4-Nitrophenol	50	U
86-30-6	N-nitrosodiphenylamine	10	U
621-64-7	N-Nitroso-Di-n-propylamine	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	0.5	J
108-95-2	Phenol	10	U
129-00-0	Pyrene	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
95-95-4	2,4,5-Trichlorophenol	10	U

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METHOD 8270 - TCL SEMI VOLATILE ORGANICS
ANALYSIS DATA SHEET

000041

Client No.

MW-5

ab Name: STL Buffalo Contract: _____

ab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

atrix: (soil/water) WATER Lab Sample ID: A1C27907

mple wt/vol: 1035.0 (g/mL) ML Lab File ID: W46164.RR

evel: (low/med) LOW Date Samp/Recv: 12/06/2001 12/08/2001

Moisture: _____ decanted: (Y/N) N Date Extracted: 12/12/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/20/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

C Cleanup: (Y/N) N pH: 8.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
88-06-2	2,4,6-Trichlorophenol	10	U J

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METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
TENTATIVELY IDENTIFIED COMPOUNDS

000042

Client No.

MW-5

Lab Name: STL Buffalo Contract: _____

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

Matrix: (soil/water) WATER Lab Sample ID: A1C27907

Sample wt/vol: 1035.0 (g/mL) ML Lab File ID: W46164.RR

Level: (low/med) LOW Date Samp/Recv: 12/06/2001 12/08/2001

% Moisture: _____ decanted: (Y/N) N Date Extracted: 12/12/2001

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/20/2001

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 8.0

Number TICs found: 18 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NO.	Compound Name	RT	Est. Conc.	Q
1.		UNKNOWN ALKANE	12.83	4	J
2.		UNKNOWN ALKANE	13.06	8	J
3.		UNKNOWN ALKANE	14.01	13	J
4.		UNKNOWN ALKANE	14.43	7	J
5.		UNKNOWN ALKANE	14.71	5	J
6.	629-59-4	TETRADECANE	15.93	8	JN
7.		UNKNOWN ALKANE	16.83	11	J
8.	90-43-7	O-HYDROXYBIPHENYL	17.80	11	JN
9.		UNKNOWN ALKANE	17.98	4	J
10.		TRIMETHYLNAPHTHALENE	18.26	5	J
11.	544-76-3	HEXADECANE	18.70	9	JN
12.		UNKNOWN ALKANE	19.33	16	J
13.		UNKNOWN ALKANE	19.96	5	J
14.		UNKNOWN ALKANE	20.05	23	J
15.		UNKNOWN ALKANE	20.50	5	J
16.		UNKNOWN ALKANE	21.16	4	J
17.		UNKNOWN HYDROCARBON	27.66	10	J
18.		UNKNOWN HYDROCARBON	29.91	6	J

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

000043

Client No.

MW-500

ab Name: STL Buffalo Contract: _____

ab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

atrix: (soil/water) WATER Lab Sample ID: A1C27908

mple wt/vol: 1020.0 (g/mL) ML Lab File ID: W46165.RR

vel: (low/med) LOW Date Samp/Recv: 12/06/2001 12/08/2001

Moisture: _____ decanted: (Y/N) N Date Extracted: 12/12/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/20/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

C Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
83-32-9	Acenaphthene	10	U
208-96-8	Acenaphthylene	10	U
120-12-7	Anthracene	10	U
56-55-3	Benzo(a)anthracene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
191-24-2	Benzo(ghi)perylene	10	U
50-32-8	Benzo(a)pyrene	10	U
65-85-0	Benzoic acid	50	U
100-51-6	Benzyl alcohol	20	U
111-91-1	Bis(2-chloroethoxy) methane	10	U
111-44-4	Bis(2-chloroethyl) ether	10	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	10	U
117-81-7	Bis(2-ethylhexyl) phthalate	10	U
101-55-3	4-Bromophenyl phenyl ether	10	U
85-68-7	Butyl benzyl phthalate	10	U
106-47-8	4-Chloroaniline	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-58-7	2-Chloronaphthalene	10	U
95-57-8	2-Chlorophenol	10	U
7005-72-3	4-Chlorophenyl phenyl ether	10	U
218-01-9	Chrysene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
132-64-9	Dibenzofuran	10	U
84-74-2	Di-n-butyl phthalate	10	U
95-50-1	1,2-Dichlorobenzene	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
120-83-2	2,4-Dichlorophenol	10	U
84-66-2	Diethyl phthalate	10	U
105-67-9	2,4-Dimethylphenol	10	U

cwf 01/24/02

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

000044
Client No.

MW-500

Lab Name: STL Buffalo Contract: _____

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

Matrix: (soil/water) WATER Lab Sample ID: A1C27908

Sample wt/vol: 1020.0 (g/mL) ML Lab File ID: W46165.RR

Level: (low/med) LOW Date Samp/Recv: 12/06/2001 12/08/2001

% Moisture: _____ decanted: (Y/N) N Date Extracted: 12/12/2001

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/20/2001

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
131-11-3	Dimethyl phthalate	10	U
534-52-1	4,6-Dinitro-2-methylphenol	50	U
51-28-5	2,4-Dinitrophenol	50	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
117-84-0	Di-n-octyl phthalate	10	U
206-44-0	Fluoranthene	10	U
86-73-7	Fluorene	10	U
118-74-1	Hexachlorobenzene	10	U
87-68-3	Hexachlorobutadiene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
67-72-1	Hexachloroethane	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
78-59-1	Isophorone	10	U
91-57-6	2-Methylnaphthalene	10	U
95-48-7	2-Methylphenol	10	U
106-44-5	4-Methylphenol	10	U
91-20-3	Naphthalene	10	U
88-74-4	2-Nitroaniline	50	U
99-09-2	3-Nitroaniline	50	U
100-01-6	4-Nitroaniline	50	U
98-95-3	Nitrobenzene	10	U
88-75-5	2-Nitrophenol	10	U
100-02-7	4-Nitrophenol	50	U
86-30-6	N-nitrosodiphenylamine	10	U
621-64-7	N-Nitroso-Di-n-propylamine	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
108-95-2	Phenol	10	U
129-00-0	Pyrene	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
95-95-4	2,4,5-Trichlorophenol	10	U

CWF 07/24/02

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

000045

Client No.

MW-500

Lab Name: STL Buffalo Contract: _____

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

Matrix: (soil/water) WATER Lab Sample ID: A1C27908

Sample wt/vol: 1020.0 (g/mL) ML Lab File ID: W46165.RR

Level: (low/med) LOW Date Samp/Recv: 12/06/2001 12/08/2001

% Moisture: _____ decanted: (Y/N) N Date Extracted: 12/12/2001

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/20/2001

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
88-06-2	2,4,6-Trichlorophenol	10	UJ

UJ 07/22/02

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
TENTATIVELY IDENTIFIED COMPOUNDS

000046

Client No.

MW-500

ab Name: STL Buffalo Contract: _____

ab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

atrix: (soil/water) WATER Lab Sample ID: A1C27908

mple wt/vol: 1020.0 (g/mL) ML Lab File ID: W46165.RR

vel: (low/med) LOW Date Samp/Recv: 12/06/2001 12/08/2001

Moisture: _____ decanted: (Y/N) N Date Extracted: 12/12/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/20/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

C Cleanup: (Y/N) N pH: 7.0

nber TICs found: 4 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NO.	Compound Name	RT	Est. Conc.	Q
1		UNKNOWN HYDROCARBON	7.61	29	J
2.	90-43-7	O-HYDROXYBIPHENYL	17.80	11	JN
3.		UNKNOWN HYDROCARBON	23.13	5	J
4.		UNKNOWN HYDROCARBON	27.66	6	J

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

000047

Client No.

WASTE DISPOSAL

ab Name: STL Buffalo Contract: _____

b Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

atrix: (soil/water) WATER Lab Sample ID: A1C27901

mple wt/vol: 650.00 (g/mL) ML Lab File ID: W46153.RR

evel: (low/med) LOW Date Samp/Recv: 12/06/2001 12/08/2001

Moisture: _____ decanted: (Y/N) N Date Extracted: 12/12/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/19/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

C Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
83-32-9	Acenaphthene	10	U
208-96-8	Acenaphthylene	10	U
120-12-7	Anthracene	10	U
56-55-3	Benzo(a)anthracene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
191-24-2	Benzo(ghi)perylene	10	U
50-32-8	Benzo(a)pyrene	10	U
65-85-0	Benzoic acid	50	U
100-51-6	Benzyl alcohol	20	U
111-91-1	Bis(2-chloroethoxy) methane	10	U
111-44-4	Bis(2-chloroethyl) ether	10	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	10	U
117-81-7	Bis(2-ethylhexyl) phthalate	10	U
101-55-3	4-Bromophenyl phenyl ether	10	U
85-68-7	Butyl benzyl phthalate	10	U
106-47-8	4-Chloroaniline	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-58-7	2-Chloronaphthalene	10	U
95-57-8	2-Chlorophenol	10	U
7005-72-3	4-Chlorophenyl phenyl ether	10	U
218-01-9	Chrysene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
132-64-9	Dibenzofuran	10	U
84-74-2	Di-n-butyl phthalate	10	U
95-50-1	1,2-Dichlorobenzene	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
120-83-2	2,4-Dichlorophenol	10	U
84-66-2	Diethyl phthalate	10	U
105-67-9	2,4-Dimethylphenol	10	U

CWS 01/24/02

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

000048

Client No.

WASTE DISPOSAL

Lab Name: STL Buffalo Contract: _____

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

Matrix: (soil/water) WATER Lab Sample ID: A1C27901

Sample wt/vol: 650.00 (g/mL) ML Lab File ID: W46153.RR

Level: (low/med) LOW Date Samp/Recv: 12/06/2001 12/08/2001

% Moisture: _____ decanted: (Y/N) N Date Extracted: 12/12/2001

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/19/2001

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
131-11-3	Dimethyl phthalate	10	U
534-52-1	4,6-Dinitro-2-methylphenol	50	U
51-28-5	2,4-Dinitrophenol	50	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
117-84-0	Di-n-octyl phthalate	10	U
206-44-0	Fluoranthene	10	U
86-73-7	Fluorene	10	U
118-74-1	Hexachlorobenzene	10	U
87-68-3	Hexachlorobutadiene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
67-72-1	Hexachloroethane	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
78-59-1	Isophorone	10	U
91-57-6	2-Methylnaphthalene	10	U > J
95-48-7	2-Methylphenol	10	U
106-44-5	4-Methylphenol	10	U
91-20-3	Naphthalene	10	U
88-74-4	2-Nitroaniline	50	U
99-09-2	3-Nitroaniline	50	U
100-01-6	4-Nitroaniline	50	U
98-95-3	Nitrobenzene	10	U
88-75-5	2-Nitrophenol	10	U
100-02-7	4-Nitrophenol	50	U
86-30-6	N-nitrosodiphenylamine	10	U
621-64-7	N-Nitroso-Di-n-propylamine	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
108-95-2	Phenol	10	U
129-00-0	Pyrene	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
95-95-4	2,4,5-Trichlorophenol	10	U

LWF 07/24/02

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

000049
Client No.

WASTE DISPOSAL

ab Name: STL Buffalo Contract: _____

b Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

atrix: (soil/water) WATER Lab Sample ID: A1C27901

mple wt/vol: 650.00 (g/mL) ML Lab File ID: W46153.RR

vel: (low/med) LOW Date Samp/Recv: 12/06/2001 12/08/2001

Moisture: _____ decanted: (Y/N) N Date Extracted: 12/12/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/19/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

C Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
88-06-2	2,4,6-Trichlorophenol	10	UJ

CWT 01/24/02

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
TENTATIVELY IDENTIFIED COMPOUNDS

000050

Client No.

WASTE DISPOSAL

Lab Name: STL Buffalo Contract: _____

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

Matrix: (soil/water) WATER Lab Sample ID: A1C27901

Sample wt/vol: 650.00 (g/mL) ML Lab File ID: W46153.RR

Level: (low/med) LOW Date Samp/Recv: 12/06/2001 12/08/2001

% Moisture: _____ decanted: (Y/N) N Date Extracted: 12/12/2001

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/19/2001

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

Number TICs found: 5 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NO.	Compound Name	RT	Est. Conc.	Q
1.		UNKNOWN ORGANIC	13.93	19	J
2.		UNKNOWN ORGANIC	15.98	7	J
3.		UNKNOWN ORGANIC	19.85	10	J
4.		UNKNOWN ORGANIC	22.18	39	J
5.		UNKNOWN ORGANIC	27.78	10	J

METHOD 8081 - TCL PESTICIDES
ANALYSIS DATA SHEET

000051

Client No.

EQUIPMENT BLANK

Lab Name: STL Buffalo Contract: _____

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

Matrix: (soil/water) WATER Lab Sample ID: A1C27902

Sample wt/vol: 1025.00 (g/mL) ML Lab File ID: RB12070.TX0

% Moisture: _____ decanted: (Y/N) N Date Samp/Recv: 12/06/2001 12/08/2001

Extraction: (SepF/Cont/Sonc/Soxh): SEPF Date Extracted: 12/12/2001

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/14/2001

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 4.00 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
309-00-2	Aldrin	0.049	U
319-84-6	alpha-BHC	0.049	U
319-85-7	beta-BHC	0.049	U
58-89-9	gamma-BHC (Lindane)	0.049	U
319-86-8	delta-BHC	0.049	U
57-74-9	Chlordane	0.49	U
72-54-8	4,4'-DDD	0.049	U J
72-55-9	4,4'-DDE	0.049	U
50-29-3	4,4'-DDT	0.049	U
60-57-1	Dieldrin	0.049	U
959-98-8	Endosulfan I	0.049	U J
33213-65-9	Endosulfan II	0.049	U
1031-07-8	Endosulfan Sulfate	0.049	U
72-20-8	Endrin	0.049	U
7421-93-4	Endrin aldehyde	0.049	U
76-44-8	Heptachlor	0.049	U
1024-57-3	Heptachlor epoxide	0.049	U
72-43-5	Methoxychlor	0.049	U J
8001-35-2	Toxaphene	0.98	U J

Cwt 07/24/02

METHOD 8081 - TCL PESTICIDES
ANALYSIS DATA SHEET

000052
Client No.

MW-1

b Name: STL Buffalo Contract: _____

) Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) WATER Lab Sample ID: A1C27903

ple wt/vol: 925.00 (g/mL) ML Lab File ID: RB12071.TX0

oisture: _____ decanted: (Y/N) N Date Samp/Recv: 12/06/2001 12/08/2001

raction: (SepF/Cont/Sonc/Soxh): SEPF Date Extracted: 12/12/2001

centrated Extract Volume: 10000 (uL) Date Analyzed: 12/14/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

Cleanup: (Y/N) N pH: 7.00 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
309-00-2	Aldrin	0.054	U	
319-84-6	alpha-BHC	0.054	U	
319-85-7	beta-BHC	0.054	U	
58-89-9	gamma-BHC (Lindane)	0.054	U	J
319-86-8	delta-BHC	0.054	U	
57-74-9	Chlordane	0.54	U	
72-54-8	4,4'-DDD	0.054	U	
72-55-9	4,4'-DDE	0.054	U	J
50-29-3	4,4'-DDT	0.054	U	J
60-57-1	Dieldrin	0.054	U	
959-98-8	Endosulfan I	0.054	U	J
33213-65-9	Endosulfan II	0.054	U	
1031-07-8	Endosulfan Sulfate	0.054	U	
72-20-8	Endrin	0.054	U	
7421-93-4	Endrin aldehyde	0.054	U	J
76-44-8	Heptachlor	0.054	U	
1024-57-3	Heptachlor epoxide	0.054	U	
72-43-5	Methoxychlor	0.054	U	J
8001-35-2	Toxaphene	1.1	U	J

Qual 07/24/02

METHOD 8081 - TCL PESTICIDES
ANALYSIS DATA SHEET

000053
Client No.

MW-2

b Name: STL Buffalo Contract: _____

b Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) WATER Lab Sample ID: A1C27904

mple wt/vol: 1020.00 (g/mL) ML Lab File ID: RB12072.TX0

Moisture: _____ decanted: (Y/N) N Date Samp/Recv: 12/06/2001 12/08/2001

Extraction: (SepF/Cont/Sonc/Soxh): SEPF Date Extracted: 12/12/2001

ncentrated Extract Volume: 10000 (uL) Date Analyzed: 12/14/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

Cleanup: (Y/N) N pH: 7.00 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
309-00-2	Aldrin	0.049	U	
319-84-6	alpha-BHC	0.049	U	
319-85-7	beta-BHC	0.049	U	
58-89-9	gamma-BHC (Lindane)	0.049	U	J
319-86-8	delta-BHC	0.049	U	
57-74-9	Chlordane	0.49	U	
72-54-8	4,4'-DDD	0.049	U	
72-55-9	4,4'-DDE	0.049	U	J
50-29-3	4,4'-DDT	0.049	U	J
60-57-1	Dieldrin	0.049	U	
959-98-8	Endosulfan I	0.049	U	J
33213-65-9	Endosulfan II	0.049	U	
1031-07-8	Endosulfan Sulfate	0.049	U	
72-20-8	Endrin	0.049	U	J
7421-93-4	Endrin aldehyde	0.049	U	
76-44-8	Heptachlor	0.049	U	
1024-57-3	Heptachlor epoxide	0.049	U	
72-43-5	Methoxychlor	0.049	U	J
8001-35-2	Toxaphene	0.98	U	J

Cnt 07/24/02

METHOD 8081 - TCL PESTICIDES
ANALYSIS DATA SHEET

000054
Client No.

MW-3

b Name: STL Buffalo Contract: _____

) Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) WATER Lab Sample ID: A1C27905

ple wt/vol: 1025.00 (g/mL) ML Lab File ID: RB12073.TX0

Moisture: _____ decanted: (Y/N) N Date Samp/Recv: 12/06/2001 12/08/2001

raction: (SepF/Cont/Sonc/Soxh): SEPF Date Extracted: 12/12/2001

centrated Extract Volume: 10000 (uL) Date Analyzed: 12/14/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

Cleanup: (Y/N) N pH: 7.00 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
309-00-2	Aldrin	0.049	U	
319-84-6	alpha-BHC	0.049	U	
319-85-7	beta-BHC	0.049	U	
58-89-9	gamma-BHC (Lindane)	0.049	U	J
319-86-8	delta-BHC	0.049	U	
57-74-9	Chlordane	0.49	U	
72-54-8	4,4'-DDD	0.049	U	
72-55-9	4,4'-DDE	0.049	U	J
50-29-3	4,4'-DDT	0.049	U	J
60-57-1	Dieldrin	0.049	U	J
959-98-8	Endosulfan I	0.049	U	J
33213-65-9	Endosulfan II	0.049	U	
1031-07-8	Endosulfan Sulfate	0.049	U	
72-20-8	Endrin	0.049	U	J
7421-93-4	Endrin aldehyde	0.049	U	
76-44-8	Heptachlor	0.049	U	
1024-57-3	Heptachlor epoxide	0.049	U	
72-43-5	Methoxychlor	0.049	U	J
8001-35-2	Toxaphene	0.98	U	J

09/24/02

METHOD 8081 - TCL PESTICIDES
ANALYSIS DATA SHEET

000055
Client No.

MW-4

b Name: STL Buffalo Contract: _____

b Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) WATER Lab Sample ID: A1C27906

mple wt/vol: 1030.00 (g/mL) ML Lab File ID: RB12074.TX0

Moisture: _____ decanted: (Y/N) N Date Samp/Recv: 12/06/2001 12/08/2001

traction: (SepF/Cont/Sonc/Soxh): SEPF Date Extracted: 12/12/2001

ncentrated Extract Volume: 10000 (uL) Date Analyzed: 12/14/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

Cleanup: (Y/N) N pH: 7.00 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
309-00-2	Aldrin	0.048	U	
319-84-6	alpha-BHC	0.048	U	
319-85-7	beta-BHC	0.048	U	
58-89-9	gamma-BHC (Lindane)	0.048	U	J
319-86-8	delta-BHC	0.048	U	
57-74-9	Chlordane	0.48	U	
72-54-8	4,4'-DDD	0.048	U	
72-55-9	4,4'-DDE	0.048	U	J
50-29-3	4,4'-DDT	0.048	U	J
60-57-1	Dieldrin	0.048	U	J
959-98-8	Endosulfan I	0.048	U	J
33213-65-9	Endosulfan II	0.048	U	
1031-07-8	Endosulfan Sulfate	0.048	U	
72-20-8	Endrin	0.048	U	J
7421-93-4	Endrin aldehyde	0.048	U	
76-44-8	Heptachlor	0.048	U	
1024-57-3	Heptachlor epoxide	0.11		J
72-43-5	Methoxychlor	0.048	U	J
8001-35-2	Toxaphene	0.97	U	J

CMT 07/24/02

METHOD 8081 - TCL PESTICIDES
ANALYSIS DATA SHEET

000056
Client No.

MW-5

b Name: STL Buffalo Contract: _____

b Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) WATER Lab Sample ID: A1C27907

mple wt/vol: 1010.00 (g/mL) ML Lab File ID: RB12079.TX0

Moisture: _____ decanted: (Y/N) N Date Samp/Recv: 12/06/2001 12/08/2001

traction: (SepF/Cont/Sonc/Soxh): SEPF Date Extracted: 12/12/2001

ncentrated Extract Volume: 10000 (uL) Date Analyzed: 12/14/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

C Cleanup: (Y/N) N pH: 7.00 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
309-00-2	Aldrin	0.050	U	J
319-84-6	alpha-BHC	0.050	U	
319-85-7	beta-BHC	0.050	U	
58-89-9	gamma-BHC (Lindane)	0.050	U	
319-86-8	delta-BHC	0.050	U	J
57-74-9	Chlordane	0.50	U	J
72-54-8	4,4'-DDD	0.050	U	
72-55-9	4,4'-DDE	0.050	U	J
50-29-3	4,4'-DDT	0.050	U	J
60-57-1	Dieldrin	0.050	U	
959-98-8	Endosulfan I	0.050	U	J
33213-65-9	Endosulfan II	0.050	U	
1031-07-8	Endosulfan Sulfate	0.050	U	
72-20-8	Endrin	0.050	U	J
7421-93-4	Endrin aldehyde	0.050	U	
76-44-8	Heptachlor	0.050	U	
1024-57-3	Heptachlor epoxide	0.050	U	
72-43-5	Methoxychlor	0.050	U	J
8001-35-2	Toxaphene	0.99	U	J

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METHOD 8081 - TCL PESTICIDES
ANALYSIS DATA SHEET

000057

Client No.

MW-500

ab Name: STL Buffalo Contract: _____

b Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

atrix: (soil/water) WATER Lab Sample ID: A1C27908

mple wt/vol: 1030.00 (g/mL) ML Lab File ID: RB12080.TX0

Moisture: _____ decanted: (Y/N) N Date Samp/Recv: 12/06/2001 12/08/2001

xtraction: (SepF/Cont/Sonc/Soxh): SEPF Date Extracted: 12/12/2001

ncentrated Extract Volume: 10000 (uL) Date Analyzed: 12/14/2001

njection Volume: 1.00 (uL) Dilution Factor: 1.00

C Cleanup: (Y/N) N pH: 7.00 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
309-00-2	Aldrin	0.048	U
319-84-6	alpha-BHC	0.048	U
319-85-7	beta-BHC	0.048	U
58-89-9	gamma-BHC (Lindane)	0.048	U
319-86-8	delta-BHC	0.048	U
57-74-9	Chlordane	0.48	U
72-54-8	4,4'-DDD	0.048	U
72-55-9	4,4'-DDE	0.048	U
50-29-3	4,4'-DDT	0.048	U
60-57-1	Dieldrin	0.048	U
959-98-8	Endosulfan I	0.048	U
33213-65-9	Endosulfan II	0.048	U
1031-07-8	Endosulfan Sulfate	0.048	U
72-20-8	Endrin	0.048	U
7421-93-4	Endrin aldehyde	0.048	U
76-44-8	Heptachlor	0.048	U
1024-57-3	Heptachlor epoxide	0.048	U
72-43-5	Methoxychlor	0.048	U
8001-35-2	Toxaphene	0.97	U

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I T CORP
METHOD 8081 - TCL PESTICIDES
ANALYSIS DATA SHEET

000058
Client No.

WASTE DISPOSAL

b Name: STL Buffalo Contract: _____

b Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) WATER Lab Sample ID: A1C27901

mple wt/vol: 540.00 (g/mL) ML Lab File ID: RB12069.TX0

Moisture: _____ decanted: (Y/N) N Date Samp/Recv: 12/06/2001 12/08/2001

traction: (SepF/Cont/Sonc/Soxh): SEPF Date Extracted: 12/12/2001

ncentrated Extract Volume: 10000 (uL) Date Analyzed: 12/14/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

C Cleanup: (Y/N) N pH: 7.00 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
309-00-2	Aldrin	0.092	U	
319-84-6	alpha-BHC	0.092	U	
319-85-7	beta-BHC	0.092	U	
58-89-9	gamma-BHC (Lindane)	0.092	U	J
319-86-8	delta-BHC	0.092	U	
57-74-9	Chlordane	0.92	U	
72-54-8	4,4'-DDD	0.092	U	
72-55-9	4,4'-DDE	0.092	U	J
50-29-3	4,4'-DDT	0.092	U	J
60-57-1	Dieldrin	0.092	U	
959-98-8	Endosulfan I	0.092	U	J
33213-65-9	Endosulfan II	0.092	U	
1031-07-8	Endosulfan Sulfate	0.092	U	
72-20-8	Endrin	0.092	U	J
7421-93-4	Endrin aldehyde	0.092	U	
76-44-8	Heptachlor	0.092	U	
1024-57-3	Heptachlor epoxide	0.092	U	
72-43-5	Methoxychlor	0.092	U	J
8001-35-2	Toxaphene	1.8	U	J

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T T CORP

METHOD 8082 - POLYCHLORINATED BIPHENYLS
ANALYSIS DATA SHEET

000059
Client No.

EQUIPMENT BLANK

b Name: STL Buffalo Contract: _____

o Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) WATER Lab Sample ID: A1C27902

mple wt/vol: 975.00 (g/mL) ML Lab File ID: PA17214.TX0

Moisture: _____ decanted: (Y/N) N Date Samp/Recv: 12/06/2001 12/08/2001

traction: (SepF/Cont/Sonc/Soxh): SEPF Date Extracted: 12/13/2001

ncentrated Extract Volume: 10000 (uL) Date Analyzed: 12/14/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

C Cleanup: (Y/N) N pH: 7.00 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
12674-11-2	Aroclor 1016	0.51	U	5
11104-28-2	Aroclor 1221	0.51	U	
11141-16-5	Aroclor 1232	0.51	U	
53469-21-9	Aroclor 1242	0.51	U	
12672-29-6	Aroclor 1248	0.51	U	
11097-69-1	Aroclor 1254	0.51	U	
11096-82-5	Aroclor 1260	0.51	U	

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I T CORP

METHOD 8082 - POLYCHLORINATED BIPHENYLS
ANALYSIS DATA SHEET

Client No.

MW-1

b Name: STL Buffalo Contract: _____

b Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) WATER Lab Sample ID: A1C27903

ple wt/vol: 1020.00 (g/mL) ML Lab File ID: PA17217.TX0

Moisture: _____ decanted: (Y/N) N Date Samp/Recv: 12/06/2001 12/08/2001

traction: (SepF/Cont/Sonc/Soxh): SEPF Date Extracted: 12/13/2001

centrated Extract Volume: 10000 (uL) Date Analyzed: 12/14/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

Cleanup: (Y/N) N pH: 7.00 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
12674-11-2	Aroclor 1016	0.50	U	J
11104-28-2	Aroclor 1221	0.50	U	
11141-16-5	Aroclor 1232	0.50	U	
53469-21-9	Aroclor 1242	0.50	U	
12672-29-6	Aroclor 1248	0.50	U	
11097-69-1	Aroclor 1254	0.50	U	
11096-82-5	Aroclor 1260	0.50	U	

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METHOD 8082 - POLYCHLORINATED BIPHENYLS
ANALYSIS DATA SHEET

000061
Client No.

MW-2

b Name: STL Buffalo Contract: _____

o Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) WATER Lab Sample ID: A1C27904

ple wt/vol: 1010.00 (g/mL) ML Lab File ID: PA17218.TX0

Moisture: _____ decanted: (Y/N) N Date Samp/Recv: 12/06/2001 12/08/2001

traction: (SepF/Cont/Sonc/Soxh): SEPF Date Extracted: 12/13/2001

ncentrated Extract Volume: 10000 (uL) Date Analyzed: 12/14/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

Cleanup: (Y/N) N pH: 7.00 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor 1016	0.50	U
11104-28-2	Aroclor 1221	0.50	U
11141-16-5	Aroclor 1232	0.50	U
53469-21-9	Aroclor 1242	0.50	U
12672-29-6	Aroclor 1248	0.50	U
11097-69-1	Aroclor 1254	0.50	U
11096-82-5	Aroclor 1260	0.50	U

07/24/02

METHOD 8082 - POLYCHLORINATED BIPHENYLS
ANALYSIS DATA SHEET

000062
Client No.

MW-3

b Name: STL Buffalo Contract: _____

b Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) WATER Lab Sample ID: A1C27905

ple wt/vol: 1000.00 (g/mL) ML Lab File ID: PA17219.TX0

Moisture: _____ decanted: (Y/N) N Date Samp/Recv: 12/06/2001 12/08/2001

traction: (SepF/Cont/Sonc/Soxh): SEPF Date Extracted: 12/13/2001

ncentrated Extract Volume: 10000 (uL) Date Analyzed: 12/14/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

Cleanup: (Y/N) N pH: 7.00 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor 1016	0.50	U
11104-28-2	Aroclor 1221	0.50	U
11141-16-5	Aroclor 1232	0.50	U
53469-21-9	Aroclor 1242	0.50	U
12672-29-6	Aroclor 1248	0.50	U
11097-69-1	Aroclor 1254	0.50	U
11096-82-5	Aroclor 1260	0.50	U

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METHOD 8082 - POLYCHLORINATED BIPHENYLS
ANALYSIS DATA SHEET

000063
Client No.

MW-4

b Name: STL Buffalo Contract: _____

b Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) WATER Lab Sample ID: A1C27906

mple wt/vol: 1020.00 (g/mL) ML Lab File ID: PA17220.TX0

Moisture: _____ decanted: (Y/N) N Date Samp/Recv: 12/06/2001 12/08/2001

traction: (SepF/Cont/Sonc/Soxh): SEPF Date Extracted: 12/13/2001

ncentrated Extract Volume: 10000 (uL) Date Analyzed: 12/14/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

C Cleanup: (Y/N) N pH: 7.00 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
12674-11-2	Aroclor 1016	0.50	U	1
11104-28-2	Aroclor 1221	0.50	U	
11141-16-5	Aroclor 1232	0.50	U	
53469-21-9	Aroclor 1242	0.50	U	
12672-29-6	Aroclor 1248	0.50	U	
11097-69-1	Aroclor 1254	0.50	U	
11096-82-5	Aroclor 1260	0.50	U	

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METHOD 8082 - POLYCHLORINATED BIPHENYLS
ANALYSIS DATA SHEET

000064

Client No.

MW-5

b Name: STL Buffalo Contract: _____

b Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) WATER Lab Sample ID: A1C27907

mple wt/vol: 1000.00 (g/mL) ML Lab File ID: PA17221.TX0

Moisture: _____ decanted: (Y/N) N Date Samp/Recv: 12/06/2001 12/08/2001

traction: (SepF/Cont/Sonc/Soxh): SEPF Date Extracted: 12/13/2001

ncentrated Extract Volume: 10000 (uL) Date Analyzed: 12/14/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

Cleanup: (Y/N) N pH: 7.00 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor 1016	0.50	U
11104-28-2	Aroclor 1221	0.50	U
11141-16-5	Aroclor 1232	0.50	U
53469-21-9	Aroclor 1242	0.50	U
12672-29-6	Aroclor 1248	0.50	U
11097-69-1	Aroclor 1254	0.50	U
11096-82-5	Aroclor 1260	0.50	U

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METHOD 8082 - POLYCHLORINATED BIPHENYLS
ANALYSIS DATA SHEET

000065
Client No.

MW-500

b Name: STL Buffalo Contract: _____

b Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) WATER Lab Sample ID: A1C27908

mple wt/vol: 900.00 (g/mL) ML Lab File ID: PA17224.TX0

Moisture: _____ decanted: (Y/N) N Date Samp/Recv: 12/06/2001 12/08/2001

traction: (SepF/Cont/Sonc/Soxh): SEPF Date Extracted: 12/13/2001

ncentrated Extract Volume: 10000 (uL) Date Analyzed: 12/14/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

C Cleanup: (Y/N) N pH: 7.00 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor 1016	0.56	U
11104-28-2	Aroclor 1221	0.56	U
11141-16-5	Aroclor 1232	0.56	U
53469-21-9	Aroclor 1242	0.56	U
12672-29-6	Aroclor 1248	0.56	U
11097-69-1	Aroclor 1254	0.56	U
11096-82-5	Aroclor 1260	0.56	U

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METHOD 8082 - POLYCHLORINATED BIPHENYLS
ANALYSIS DATA SHEET

000066
Client No.

WASTE DISPOSAL

ab Name: STL Buffalo Contract: _____

ab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

atrix: (soil/water) WATER Lab Sample ID: A1C27901

ample wt/vol: 440.00 (g/mL) ML Lab File ID: PA17213.TX0

Moisture: _____ decanted: (Y/N) N Date Samp/Recv: 12/06/2001 12/08/2001

xtraction: (SepF/Cont/Sonc/Soxh): SEPF Date Extracted: 12/13/2001

oncentrated Extract Volume: 10000 (uL) Date Analyzed: 12/14/2001

njection Volume: 1.00 (uL) Dilution Factor: 1.00

PC Cleanup: (Y/N) N pH: 7.00 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor 1016	1.1	U
11104-28-2	Aroclor 1221	1.1	U
11141-16-5	Aroclor 1232	1.1	U
53469-21-9	Aroclor 1242	1.1	U
12672-29-6	Aroclor 1248	1.1	U
11097-69-1	Aroclor 1254	1.1	U
11096-82-5	Aroclor 1260	1.1	U

CWT 07/24/02

ORGANIC QC SUMMARY FORMS

Camp Pharsalia Site

SDG No. A01-C279

Environmental Quality Associates, Inc.

SEMI-VOLATILE ORGANICS
QC PARAMETER / QUALIFIER SUMMARY
SW846 METHOD 8270 C

CLIENT: SHAW E&I - LATHAM, NY PROJECT: NYSDEC - CAMP PHARSALIA SDG No.: A01-C279

A. HOLDING TIMES (NYSDEC-ASP)

NON-AQUEOUS MATRIX:	10 DAYS MAXIMUM FROM VTSR TO EXTRACTION
AQUEOUS MATRIX:	5 DAYS MAXIMUM FROM VTSR TO EXTRACTION
ALL MATRICES:	40 DAYS MAXIMUM FROM EXTRACTION TO ANALYSIS

NOTE: samples were received at the laboratory at 11 degrees C; therefore all reported sample results are qualified 'UJ' or 'J', with potential negative bias or false-negatives suggested.

B. METHOD BLANKS

Blank ID	File ID	Matrix	Analytes Present	Conc., ug/L
S BLK	W46136	aqueous	TIC @ RT=3.20	80 J

ACTION: If sample concentration >CRQL, but <10x Blank value, flag result with 'U'
If sample concentration <CRQL, and <10x Blank value, report CRQL and flag with 'U'
If sample concentration >CRQL, and >10x Blank value, no qualification necessary

C. SURROGATE RECOVERY

Sample ID	Surrogate	Bias	Surrogate	Bias	ACTION
MW-5	2-fluorobiphenyl	high	2,4,6-triBrphenol	high	Qualify 'J' positive acids & base-neutrals

D. MATRIX SPIKE / DUPLICATE

Sample ID	Spike Compound	MS or MSD	Bias	ACTION
MW-1	2,4-diNO2toluene	MS	high	Qualify 'J' positive2,4-diNO2toluene in MW-1 only

Note: only CLP spike compounds were added.

E. BLANK SPIKE

Sample ID	Spike Compound	Bias	ACTION
MSB	All MSB recoveries were within acceptable limits.		

Note: only CLP spike compounds were added.

F. INTERNAL STANDARDS

Sample ID	Internal Standard	Bias	ACTION

All IS recoveries & RTs were within acceptable limits

G. INSTRUMENT TUNES

Date	m/z abundance	< 12-hrs.	ACTION
12/15/01	OK	yes	
12/18/01	OK	yes	
12/19/01	OK	yes	
12/20/01	OK	yes	

H. SAMPLE RESULT VERIFICATION

Sample ID	Compound	Reported Conc., ug/L	Calculated Conc., ug/L
MW-1 MS	pyrene	300	297

Conc., ug/L = (Ax / Ais) × (Is / RRF) × (Vt / Vo) × (Df / Vi) × GPC

Ax	Is	Vt	Df	GPC
4075347	40.0	1000	1.0	1.0
Ais	**RRF**	**Vo**	**Vi**	
1508995	1.138	320	1.0	

SEMI-VOLATILE ORGANICS
CALIBRATION SUMMARY
SW846 METHOD 8270C

CLIENT: SHAW E&I - LATHAM, NY PROJECT : NYSDEC - CAMP PHARSALIA SDG No.: A01-C279

A. INITIAL CALIBRATION

CALIBRATION DATE :	12/15//01
FILE IDs :	W46108 - 112
ALL RRFs > 0.05 ?	Yes
SPCC RRFs >0.05 ?	Yes
CCC %RSDs < 30% ?	Yes
All Targets < 15% RSD?	NO
(If No, list compounds)	benzyl alcohol
	4-chloroaniline
	hexachlorocyclopentadiene
	2-nitroaniline
	2,6-dinitrotoluene
	3-nitroaniline
	2,4-dinitrophenol
	4,6-dinitro-2-metyhylphenol
	3,3'-dichlorobenzidine
	benzo(b)fluoranthene
	benzo(k)fluoranthene

SPCC Compounds
N-Nitroso-di-n-propylamine
Hexachlorocyclopentadiene
2,4-Dinitrophenol
4-Nitrophenol
MINIMUM RRF = 0.050

CCC Compounds
Base/Neutrals
Acenaphthene
1,4-Dichlorobenzene
Hexachlorobutadiene
Diphenylamine
Di-n-octylphthalate
Fluoranthene
Benzo(a)pyrene
Acids
4-Chloro-3-methylphenol
2,4-Dichlorophenol
2-Nitrophenol
Phenol
Pentachlorophenol
2,4,6-Trichlorophenol
MAXIMUM %RSD = 30.0%

ACTION : Qualify 'J' all positive compounds which exceed 15% RSD in associated samples.

B. CONTINUING CALIBRATIONS

SPCC Compounds	CALIBRATION DATE :	12/18/01	12/19/01	12/20/01
N-Nitroso-di-n-propylamine	FILE IDs :	W46131	W46145	W46160
Hexachlorocyclopentadiene	ALL RRFs > 0.05 ?	Yes	Yes	Yes
2,4-Dinitrophenol	SPCC RRFs >0.05 ?	Yes	Yes	Yes
4-Nitrophenol	CCC %Ds < 20% ?	Yes	Yes	Yes
MINIMUM RRF = 0.050	All Targets < 20%D?	Yes	Yes	NO
	(If No, list compounds)--->			2,4-dinitrophenol

CCC Compounds
Base/Neutrals
Acenaphthene
1,4-Dichlorobenzene
Hexachlorobutadiene
Diphenylamine
Di-n-octylphthalate
Fluoranthene
Benzo(a)pyrene
Acids
4-Chloro-3-methylphenol
2,4-Dichlorophenol
2-Nitrophenol
Phenol
Pentachlorophenol
2,4,6-Trichlorophenol
MAXIMUM %D = 20.0%

ACTION : Qualify 'J' or 'UJ' all reported results for compounds which exceed 20%D in associated samples.

CHLORINATED PESTICIDES
QC PARAMETER / QUALIFIER SUMMARY
SW846 METHOD 8081

For: SHAW E&I - LATHAM, NY Project: NYSDEC - Camp Pharsalia SDG No.: A01-C279

A. HOLDING TIMES

AQUEOUS MATRIX:	5 DAYS MAXIMUM FROM VTSR TO EXTRACTION
NON-AQUEOUS MATRIX:	10 DAYS MAXIMUM FROM VTSR TO EXTRACTION
ALL MATRICES:	40 DAYS MAXIMUM FROM EXTRACTION TO ANALYSIS

NOTE: samples were received at the laboratory at 11 degrees C; therefore all reported sample results are qualified 'UJ' or 'J', with potential negative bias or false-negatives suggested.

B. METHOD BLANKS

Blank ID:	MBLK1212
Extraction Date:	12/12/01
Analyte	Conc. ug/L
none found	
AFFECTS:	n/a

The method blank was free of target compound contamination; no QA action was necessary.

C. SURROGATE RECOVERY

SAMPLE ID	SURROGATE ID (Col #)	BIAS	ACTION
MSB	TCMX	low	none required
MSBD	TCMX	low	none required
MB1212	TCMX	low	none required
MW-2	TCMX	low	none required
MW-4	TCMX	low	none required
MW-500	TCMX	low	none required

D. MATRIX SPIKE / DUPLICATE

SAMPLE ID	OUTLIERS	BIAS	ACTION	COMMENTS
				No MS/MSD analyzed; no estimation of potential matrix effects may be made.

E. LABORATORY QC SPIKE (LCS control samples; 1 ppb)

SAMPLE ID	OUTLIERS	BIAS	ACTION
MBLK1212 S	none		none required
MBLK1212 SD	none		none required

CHLORINATED PESTICIDES
CALIBRATION SUMMARY
SW846 METHOD 8081

For: SHAW E&I - LATHAM, NY Project: NYSDEC - Camp Pharsalia SDG No.: A01-C297

A. INITIAL CALIBRATION

CALIBRATION DATE :	12/12/01
FILE IDs :	RB11507 - 511
All Targets < 20% RSD? Or, for linear regression, r-squared >0.99 ?	Yes
(If No, list compounds) ==>	

ACTION : Qualify 'J' all positive compounds >20% RSD or <0.99 r-squared in associated samples.

B. CONTINUING CALIBRATIONS

CALIBRATION DATE :	12/14/01	12/14/01	Affects:
FILE ID :	RA12064	RA12076	Waste Disposal
All Targets < 15% D?	NO	NO	Equipment Blank
(If No, list compounds) ==>	4,4'-DDE	4,4'-DDE	MW-1
	Endosulfan 1	Endosulfan I	MW-2
		Methoxychlor	MW-3
			MW-4

CALIBRATION DATE :	12/14/01	12/14/01	Affects:
FILE ID :	RA12078	RA12085	MW-5
All Targets < 15% D?	NO	NO	MW-500
(If No, list compounds) ==>	4,4'-DDE	delta-BHC	
	Endosulfan I	4,4'-DDE	
	Methoxychlor	Endosulfan I	

ACTION : Qualify 'UJ' or 'J' reported values for above compounds in associated samples.

POLYCHLORINATED BIPHENYLS (PCBs)
QC PARAMETER / QUALIFIER SUMMARY
SW846 METHOD 8082

For: SHAW E&I - LATHAM, NY Project: NYSDEC - Camp Pharsalia SDG No.: A01-C279

A. HOLDING TIMES NYSDEC-ASP

AQUEOUS MATRIX:	5 DAYS MAXIMUM FROM VTSR TO EXTRACTION
NON-AQUEOUS MATRIX:	10 DAYS MAXIMUM FROM VTSR TO EXTRACTION
ALL MATRICES:	40 DAYS MAXIMUM FROM EXTRACTION TO ANALYSIS

NOTE: samples were received at the laboratory at 11 degrees C; therefore all reported sample results are qualified 'UJ' or 'J' with potential negative bias or false-negatives suggested.

B. METHOD BLANKS

Blank ID:	MBLK1213	
Extraction Date:	12/13/01	
Analyte	Conc. ug/L	
none found		
AFFECTS:	n/a	

The method blank was free of target compound contamination; no QA action was necessary.

C. SURROGATE RECOVERY

SAMPLE ID	SURROGATE ID (Col #)	BIAS	ACTION

All surrogate recoveries were within acceptable limits; no data qualifiers were necessary.

D. MATRIX SPIKE / DUPLICATE

SAMPLE ID	OUTLIERS	BIAS	ACTION	COMMENTS
MW-5 MS	none		none required	
MW-5 MSD	none		none required	

E. LABORATORY QC SPIKE (LCS control samples; 1 ppb)

SAMPLE ID	OUTLIERS	BIAS	ACTION
MBLK1213 S	none		none required

POLYCHLORINATED BIPHENYLS (PCBs)
CALIBRATION SUMMARY
SW846 METHOD 8082

For: SHAW E&I - LATHAM, NY Project: NYSDEC - Camp Pharsalia SDG No.: A01-C279

A. INITIAL CALIBRATION

CALIBRATION DATE :	10/14/01
FILE IDs :	P 14159 - 178
All Targets < 20% RSD? Or, for linear regression, r-squared >0.99 ?	Yes
(If No, list compounds) ==>	

ACTION : Qualify 'J' all positive compounds >20% RSD or <0.99 r-squared in associated samples.

B. CONTINUING CALIBRATIONS

CALIBRATION DATE :	12/13/01	12/13/01	12/13/01	12/14/01	12/14/01
FILE ID :	P 17201	P 17203	P17204	P 17215	P 17225
All Targets < 15% D?	Yes	Yes	Yes	Yes	Yes
(If No, list compounds) ==>					

ACTION : No QA action necessary.

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DATA REVIEW SUMMARY REPORT

for

THE SHAW GROUP
Environmental & Infrastructure

Latham, New York

NYSDEC - Camp Pharsalia Site

SDG No. A01-B630

Prepared By: Environmental Quality Associates, Inc.

July 23, 2002

The Shaw Group, Environmental & Infrastructure
Att: Tanjia Maynard, Project Manager
13 British – American Boulevard
Latham, New York 12110

Re: NYSDEC / Camp Pharsalia Laboratory Analytical Data

Dear Ms. Maynard,

This cover letter, and the attached documents, detail the data validation findings associated with the following sample analytical results contained in the above-referenced deliverables set.

Site Name: Camp Pharsalia

Fractions

Semi-Volatiles, 8270		Laboratory:	Severn Trent
SDG No.: A01-B630		Matrix:	Non-Aqueous
Metals, 6010 & 7471		Laboratory:	Severn Trent
SDG No.: A01-B630		Matrix:	Non-Aqueous

Reviewer: Chris Taylor

Prepared by: Environmental Quality Associates, Inc.

SECTION A
Sample Information

The above-noted project samples were analyzed by Severn Trent Laboratories, Inc., Amherst, NY. Semi-volatile Organics were analyzed by USEPA SW-846 Method 8270; metals were analyzed by USEPA SW-846 Methods 6010 (ICP) and 7471 (Hg by CVAA). A summary table of samples analyzed is presented below; samples listed are exclusive of MS / MSD analyses performed.

No field (equipment) blank results were reported with the data deliverables package. Therefore, potential sample contamination from sampling equipment cannot be assessed.

Sample ID	Lab ID	Matrix	Date Collected	Analyses	
				Semi-VOA	Metals
SB-1 (10-12)	A1B63013	S	11/15/01	X	
SB-2 (10-12)	A1B63014	S	11/15/01	X	
SB-3 (10-12)	A1B63015	S	11/15/01	X	
SB-4 (6-8)	A1B63016	S	11/16/01	X	
SB-5 (8-10)	A1B63017	S	11/16/01	X	
SB-6 (4-6)	A1B63018	S	11/16/01	X	
SB-7 (2-4)	A1B63019	S	11/16/01	X	
SB-700 (2-4)	A1B63020	S	11/16/01	X	
SS-1	A1B63001	S	11/16/01	X	X
SS-2	A1B63002	S	11/16/01	X	X
SS-3	A1B63003	S	11/16/01	X	X
SS-4	A1B63004	S	11/16/01	X	X
SS-5	A1B63005	S	11/16/01	X	X
SS-6	A1B63006	S	11/16/01	X	X
SS-7	A1B63007	S	11/16/01	X	X
SS-700	A1B63010	S	11/16/01	X	X
SS-8	A1B63008	S	11/16/01	X	X
SS-9	A1B63009	S	11/16/01	X	X
S = Non-Aqueous Matrix			Total Samples =	18	10

SECTION B
Semi-volatile Fraction (8270)

Several target compounds exceeded the maximum %RSD value of 15.0% during the initial calibration sequences; since none of these compounds were positive in associated samples, no data qualifiers were necessary.

The %D for 2,4-dinitrophenol, isophorone and benzo(k)fluoranthene in the continuing calibration of 12/03/01 exceeded 20.0%; these compounds were qualified (U) 'J', as quantitatively estimated, in all associated samples.

Blank spike recoveries were within acceptable limits. It is noted that the laboratory used the CLP spike compound set in matrix and blank spike samples. SW-846 protocol calls for spiking with all compounds of interest, generally taken to mean all method target compounds being reported. Also, the laboratory is reporting the same recovery limits for both matrix and blank spikes, whereas blank spikes should have a tighter recovery range based upon absence of matrix effects. Although no data qualifiers are warranted based on these protocol excursions, the laboratory should take steps to ensure that method requirements are followed.

The presence of 1,1,2,2-tetrachloroethane as a non-target (TIC) compound in several samples is noted. It is "industry-standard" practice to disallow the presence of target compounds from the volatile fraction as TICs in the semi-volatile fraction; therefore, this compound has been red-lined and rejected 'R' in samples where it was reported as a TIC.

Several samples were analyzed at initial dilutions of 5x (SS-4, SS-9) or 10x (SS-3); these dilutions were attributed to 'Code 012', 'sample viscosity', by the laboratory (see p. 000009 of the lab deliverables). It is noted that (a) the laboratory did not adjust the reported Form 1 PQL values to reflect these dilutions, and (b) that no target compounds which would have exceeded the undiluted sample calibration range were present in the above-noted diluted samples. Therefore, the data user is alerted to compare the adjusted PQL values to the site action levels for these compounds to determine if required quantitation levels have been met, since a reported non-detect value which is greater than an action-level concentration is of no utility.

SECTION C
Metals Analysis

No matrix spike (MS) or matrix duplicate (MD) results were reported. Inspection of the sample prep log indicated that no samples from this SDG were selected for MS or MD analysis; therefore no assessment may be made of potential sample matrix effects on analytical accuracy or precision. Digestate spike recovery for barium was above 125%, which is indicative of a positive analytical bias for these analytes; reported positive values for Ba were qualified 'J', with positive bias suggested.

Serial Dilution sample precision values exceeded 10.0% difference for all analytes except antimony, arsenic, beryllium, cadmium, selenium, silver, sodium and thallium, while undiluted sample results were above 10x analyte IDL values. Reported results for these analytes above either 10x analyte IDL values, or their respective CRDL levels (if 10x analyte IDL was < CRDL) were qualified 'J', as quantitatively estimated values. Since all the diluted concentrations for the above-noted analytes were above the undiluted values, potential negative bias for reported results is suggested.

ICSA solution values for thallium were reported at –47, -36 and –36 ug/L; this is indicative of a negative interference on Tl which exceeds 2x the (absolute) CRDL concentration of 10 ug/L. Therefore, all reported Tl values were qualified 'UJ' or 'J', with potential negative bias suggested.

SECTION D
Other Issues

It is noted that the samples were collected on 11/15 and 11/16/2001, and not received at the laboratory (VTSR) until 11/21/2001; this represents a five to six-day delay between sample collection and VTSR, which is considered excessive. Since the NYSDEC-ASP protocol uses VTSR as the start of holding-time measurement, and samples were received at 2 degrees Celsius, no data qualifiers were applied. However sampling teams should be made aware of the importance of timely transit to the laboratory after sample collection.

SECTION E
Overall Recommendations

The results of the review and validation process for the above organic fraction and associated samples are summarized on the attached QC Summary Tables, in order to facilitate the end-user's' review of these data.

Very truly yours,
Environmental Quality Associates, Inc.

Chris W. Taylor
Vice President

Attachments

REVIEWED & QUALIFIED ANALYTE SUMMARY FORMS

Camp Pharsalia Site

SDG No. A01-B630

Environmental Quality Associates, Inc.

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

Client No.

SB-1 (10-12)

b Name: STL Buffalo Contract: _____

b Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) SOIL Lab Sample ID: A1B63013

mple wt/vol: 30.47 (g/mL) G Lab File ID: Y49865.RR

vel: (low/med) LOW Date Samp/Recv: 11/15/2001 11/21/2001

Moisture: 11.2 decanted: (Y/N) N Date Extracted: 11/28/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/04/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

C Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
83-32-9	Acenaphthene	330	U
208-96-8	Acenaphthylene	330	U
120-12-7	Anthracene	330	U
56-55-3	Benzo(a)anthracene	330	U
205-99-2	Benzo(b)fluoranthene	330	U
207-08-9	Benzo(k)fluoranthene	330	U J
191-24-2	Benzo(ghi)perylene	330	U
50-32-8	Benzo(a)pyrene	330	U
65-85-0	Benzoic acid	1600	U
100-51-6	Benzyl alcohol	330	U
111-91-1	Bis(2-chloroethoxy) methane	330	U
111-44-4	Bis(2-chloroethyl) ether	330	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	330	U
117-81-7	Bis(2-ethylhexyl) phthalate	330	U
101-55-3	4-Bromophenyl phenyl ether	330	U
85-68-7	Butyl benzyl phthalate	330	U
106-47-8	4-Chloroaniline	330	U
59-50-7	4-Chloro-3-methylphenol	330	U
91-58-7	2-Chloronaphthalene	330	U
95-57-8	2-Chlorophenol	330	U
7005-72-3	4-Chlorophenyl phenyl ether	330	U
218-01-9	Chrysene	330	U
53-70-3	Dibenzo(a,h)anthracene	330	U
132-64-9	Dibenzofuran	330	U
84-74-2	Di-n-butyl phthalate	330	U
95-50-1	1,2-Dichlorobenzene	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
91-94-1	3,3'-Dichlorobenzidine	660	U
120-83-2	2,4-Dichlorophenol	330	U
84-66-2	Diethyl phthalate	330	U
105-67-9	2,4-Dimethylphenol	330	U

cwt 07/23/02

Client No.

SB-1 (10-12)

b Name: STL Buffalo Contract: _____

b Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) SOIL Lab Sample ID: A1B63013

mple wt/vol: 30.47 (g/mL) G Lab File ID: Y49865.RR

vel: (low/med) LOW Date Samp/Recv: 11/15/2001 11/21/2001

Moisture: 11.2 decanted: (Y/N) N Date Extracted: 11/28/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/04/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

C Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
131-11-3	Dimethyl phthalate	330	U
534-52-1	4,6-Dinitro-2-methylphenol	1600	U
51-28-5	2,4-Dinitrophenol	1600	U J
121-14-2	2,4-Dinitrotoluene	330	U
606-20-2	2,6-Dinitrotoluene	330	U
117-84-0	Di-n-octyl phthalate	330	U
206-44-0	Fluoranthene	330	U
86-73-7	Fluorene	25	J
118-74-1	Hexachlorobenzene	330	U
87-68-3	Hexachlorobutadiene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
67-72-1	Hexachloroethane	330	U
193-39-5	Indeno(1,2,3-cd)pyrene	330	U
78-59-1	Isophorone	330	U J
91-57-6	2-Methylnaphthalene	330	U
95-48-7	2-Methylphenol	330	U
106-44-5	4-Methylphenol	330	U
91-20-3	Naphthalene	330	U
88-74-4	2-Nitroaniline	1600	U
99-09-2	3-Nitroaniline	1600	U
100-01-6	4-Nitroaniline	1600	U
98-95-3	Nitrobenzene	330	U
88-75-5	2-Nitrophenol	330	U
100-02-7	4-Nitrophenol	1600	U
86-30-6	N-nitrosodiphenylamine	330	U
621-64-7	N-Nitroso-Di-n-propylamine	330	U
87-86-5	Pentachlorophenol	1600	U
85-01-8	Phenanthrene	100	J
108-95-2	Phenol	330	U
129-00-0	Pyrene	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
95-95-4	2,4,5-Trichlorophenol	800	U

cwt 07/23/02

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

000013

Client No.

SB-1 (10-12)

Lab Name: STL Buffalo Contract: _____

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

Matrix: (soil/water) SOIL Lab Sample ID: A1B63013

Sample wt/vol: 30.47 (g/mL) G Lab File ID: Y49865.RR

Level: (low/med) LOW Date Samp/Recv: 11/15/2001 11/21/2001

% Moisture: 11.2 decanted: (Y/N) N Date Extracted: 11/28/2001

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/04/2001

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
88-06-2	2,4,6-Trichlorophenol	330	U

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
TENTATIVELY IDENTIFIED COMPOUNDS

Client No.

SB-1 (10-12)

b Name: STL Buffalo Contract: _____

b Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) SOIL Lab Sample ID: A1B63013

mple wt/vol: 30.47 (g/mL) G Lab File ID: Y49865.RR

vel: (low/med) LOW Date Samp/Recv: 11/15/2001 11/21/2001

Moisture: 11.2 decanted: (Y/N) N Date Extracted: 11/28/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/04/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

C Cleanup: (Y/N) N pH: _____

mber TICs found: 20 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

	CAS NO.	Compound Name	RT	Est. Conc.	Q
1.	~~79-34-5~~	~~1,1,2,2-TETRACHLOROETHANE~~	~~6.98~~	~~250~~	~~JN~~ R
2.		UNKNOWN ALKANE	12.58	140	J
3.		UNKNOWN ALKANE	13.53	300	J
4.		UNKNOWN HYDROCARBON	14.70	200	J
5.		DIMETHYLNAPHTHALENE ISOMER	15.96	160	J
6.		UNKNOWN ALKANE	16.15	150	J
7.		UNKNOWN CYCLOHEXANE DER.	16.20	150	J
8.		UNKNOWN ALKANE	16.33	550	J
9.		TRIMETHYLNAPHTHALENE ISOMER	17.43	210	J
10.		TRIMETHYLNAPHTHALENE ISOMER	17.51	160	J
11.		UNKNOWN CYCLOHEXANE DER.	17.63	180	J
12.		TRIMETHYLNAPHTHALENE ISOMER	17.73	420	J
13.		TRIMETHYLNAPHTHALENE ISOMER	17.96	160	J
14.		UNKNOWN NAPHTHALENE DER.	18.43	270	J
15.		UNKNOWN BENZENE DER.	18.51	130	J
16.		UNKNOWN ALKANE	18.80	720	J
17.		UNKNOWN ALKANE	19.51	960	J
18.		UNKNOWN PAH DER.	19.83	150	J
19.		UNKNOWN ALKANE	19.96	210	J
20.		UNKNOWN ALKANE	21.70	140	J

Conf 01/22/02

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

Client No.

SB-2 (10-12)

b Name: STL Buffalo Contract: _____

b Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) SOIL Lab Sample ID: A1B63014

mple wt/vol: 30.37 (g/mL) G Lab File ID: Y49866.RR

vel: (low/med) LOW Date Samp/Recv: 11/15/2001 11/21/2001

Moisture: 15.5 decanted: (Y/N) N Date Extracted: 11/28/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/04/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

C Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
83-32-9	Acenaphthene	130	J
208-96-8	Acenaphthylene	330	U
120-12-7	Anthracene	330	U
56-55-3	Benzo(a)anthracene	330	U
205-99-2	Benzo(b)fluoranthene	330	U
207-08-9	Benzo(k)fluoranthene	330	U J
191-24-2	Benzo(ghi)perylene	330	U
50-32-8	Benzo(a)pyrene	330	U
65-85-0	Benzoic acid	1600	U
100-51-6	Benzyl alcohol	330	U
111-91-1	Bis(2-chloroethoxy) methane	330	U
111-44-4	Bis(2-chloroethyl) ether	330	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	330	U
117-81-7	Bis(2-ethylhexyl) phthalate	330	U
101-55-3	4-Bromophenyl phenyl ether	330	U
85-68-7	Butyl benzyl phthalate	330	U
106-47-8	4-Chloroaniline	330	U
59-50-7	4-Chloro-3-methylphenol	330	U
91-58-7	2-Chloronaphthalene	330	U
95-57-8	2-Chlorophenol	330	U
7005-72-3	4-Chlorophenyl phenyl ether	330	U
218-01-9	Chrysene	330	U
53-70-3	Dibenzo(a,h)anthracene	330	U
132-64-9	Dibenzofuran	81	J
84-74-2	Di-n-butyl phthalate	75	J
95-50-1	1,2-Dichlorobenzene	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
91-94-1	3,3'-Dichlorobenzidine	660	U
120-83-2	2,4-Dichlorophenol	330	U
84-66-2	Diethyl phthalate	330	U
105-67-9	2,4-Dimethylphenol	330	U

CWS 07/26/02

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

000016

Client No.

SB-2 (10-12)

b Name: STL Buffalo Contract: _____

b Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) SOIL Lab Sample ID: A1B63014

mple wt/vol: 30.37 (g/mL) G Lab File ID: Y49866.RR

vel: (low/med) LOW Date Samp/Recv: 11/15/2001 11/21/2001

Moisture: 15.5 decanted: (Y/N) N Date Extracted: 11/28/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/04/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

C Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
131-11-3	Dimethyl phthalate	330	U
534-52-1	4,6-Dinitro-2-methylphenol	1600	U
51-28-5	2,4-Dinitrophenol	1600	U
121-14-2	2,4-Dinitrotoluene	330	U
606-20-2	2,6-Dinitrotoluene	330	U
117-84-0	Di-n-octyl phthalate	330	U
206-44-0	Fluoranthene	330	U
86-73-7	Fluorene	300	J
118-74-1	Hexachlorobenzene	330	U
87-68-3	Hexachlorobutadiene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
67-72-1	Hexachloroethane	330	U
193-39-5	Indeno(1,2,3-cd)pyrene	330	U
78-59-1	Isophorone	330	U
91-57-6	2-Methylnaphthalene	140	J
95-48-7	2-Methylphenol	330	U
106-44-5	4-Methylphenol	330	U
91-20-3	Naphthalene	330	U
88-74-4	2-Nitroaniline	1600	U
99-09-2	3-Nitroaniline	1600	U
100-01-6	4-Nitroaniline	1600	U
98-95-3	Nitrobenzene	330	U
88-75-5	2-Nitrophenol	330	U
100-02-7	4-Nitrophenol	1600	U
86-30-6	N-nitrosodiphenylamine	330	U
621-64-7	N-Nitroso-Di-n-propylamine	330	U
87-86-5	Pentachlorophenol	1600	U
85-01-8	Phenanthrene	640	
108-95-2	Phenol	330	U
129-00-0	Pyrene	46	J
120-82-1	1,2,4-Trichlorobenzene	330	U
95-95-4	2,4,5-Trichlorophenol	800	U

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

Client No.

SB-2 (10-12)

ab Name: STL Buffalo Contract: _____

ab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) SOIL Lab Sample ID: A1B63014

mple wt/vol: 30.37 (g/mL) G Lab File ID: Y49866.RR

vel: (low/med) LOW Date Samp/Recv: 11/15/2001 11/21/2001

Moisture: 15.5 decanted: (Y/N) N Date Extracted: 11/28/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/04/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

C Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
88-06-2	2,4,6-Trichlorophenol	330	U

1 1 CORE

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
TENTATIVELY IDENTIFIED COMPOUNDS

Client No.

SB-2 (10-12)

Lab Name: STL Buffalo Contract: _____

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

Matrix: (soil/water) SOIL Lab Sample ID: A1B63014

Sample wt/vol: 30.37 (g/mL) G Lab File ID: Y49866.RR

Level: (low/med) LOW Date Samp/Recv: 11/15/2001 11/21/2001

% Moisture: 15.5 decanted: (Y/N) N Date Extracted: 11/28/2001

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/04/2001

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

Number TICs found: 20 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

	CAS NO.	Compound Name	RT	Est. Conc.	Q
1.		UNKNOWN ALKANE	12.58	1200	J
2.		UNKNOWN CYCLOHEXANE DER.	13.06	890	J
3.		UNKNOWN HYDROCARBON	13.23	970	J
4.		UNKNOWN HYDROCARBON	13.31	710	J
5.		UNKNOWN ALKANE	13.53	2300	J
6.		UNKNOWN HYDROCARBON	14.16	980	J
7.		UNKNOWN ALKANE	14.23	700	J
8.		UNKNOWN HYDROCARBON	14.41	990	J
9.		UNKNOWN CYCLOHEXANE DER.	14.70	1200	J
10.		UNKNOWN ALKANE	15.51	720	J
11.		UNKNOWN HYDROCARBON	15.60	830	J
12.		DIMETHYLNAPHTHALENE ISOMER	15.75	740	J
13.		DIMETHYLNAPHTHALENE ISOMER	15.98	1200	J
14.		UNKNOWN ALKANE	16.35	2000	J
15.		TRIMETHYLNAPHTHALENE ISOMER	17.53	1100	J
16.		TRIMETHYLNAPHTHALENE ISOMER	17.75	1600	J
17.		UNKNOWN PAH DER.	18.76	750	J
18.		UNKNOWN ALKANE	18.83	1300	J
19.		UNKNOWN ALKANE	19.55	1800	J
20.		UNKNOWN	30.05	1300	J

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

000019

Client No.

SB-3 (10-12)

Lab Name: STL Buffalo Contract: _____

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

Matrix: (soil/water) SOIL Lab Sample ID: A1B63015

Sample wt/vol: 30.91 (g/mL) G Lab File ID: Y49867.RR

Level: (low/med) LOW Date Samp/Recv: 11/15/2001 11/21/2001

% Moisture: 10.9 decanted: (Y/N) N Date Extracted: 11/28/2001

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/04/2001

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
83-32-9	Acenaphthene	46	J
208-96-8	Acenaphthylene	330	U
120-12-7	Anthracene	330	U
56-55-3	Benzo(a)anthracene	330	U
205-99-2	Benzo(b)fluoranthene	330	U
207-08-9	Benzo(k)fluoranthene	330	U J
191-24-2	Benzo(ghi)perylene	330	U
50-32-8	Benzo(a)pyrene	330	U
65-85-0	Benzoic acid	1600	U
100-51-6	Benzyl alcohol	330	U
111-91-1	Bis(2-chloroethoxy) methane	330	U
111-44-4	Bis(2-chloroethyl) ether	330	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	330	U
117-81-7	Bis(2-ethylhexyl) phthalate	330	U
101-55-3	4-Bromophenyl phenyl ether	330	U
85-68-7	Butyl benzyl phthalate	330	U
106-47-8	4-Chloroaniline	330	U
59-50-7	4-Chloro-3-methylphenol	330	U
91-58-7	2-Chloronaphthalene	330	U
95-57-8	2-Chlorophenol	330	U
7005-72-3	4-Chlorophenyl phenyl ether	330	U
218-01-9	Chrysene	330	U
53-70-3	Dibenzo(a,h)anthracene	330	U
132-64-9	Dibenzofuran	39	J
84-74-2	Di-n-butyl phthalate	330	U
95-50-1	1,2-Dichlorobenzene	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
91-94-1	3,3'-Dichlorobenzidine	660	U
120-83-2	2,4-Dichlorophenol	330	U
84-66-2	Diethyl phthalate	330	U
105-67-9	2,4-Dimethylphenol	330	U

Lab artifact

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METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

000020

Client No.

SB-3 (10-12)

Lab Name: SIL Buffalo Contract: _____

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

Matrix: (soil/water) SOIL Lab Sample ID: A1B63015

Sample wt/vol: 30.91 (g/mL) G Lab File ID: Y49867.RR

Level: (low/med) LOW Date Samp/Recv: 11/15/2001 11/21/2001

% Moisture: 10.9 decanted: (Y/N) N Date Extracted: 11/28/2001

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/04/2001

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
131-11-3	Dimethyl phthalate	330	U
534-52-1	4,6-Dinitro-2-methylphenol	1600	U
51-28-5	2,4-Dinitrophenol	1600	U
121-14-2	2,4-Dinitrotoluene	330	U
606-20-2	2,6-Dinitrotoluene	330	U
117-84-0	Di-n-octyl phthalate	330	U
206-44-0	Fluoranthene	330	U
86-73-7	Fluorene	150	J
118-74-1	Hexachlorobenzene	330	U
87-68-3	Hexachlorobutadiene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
67-72-1	Hexachloroethane	330	U
193-39-5	Indeno(1,2,3-cd)pyrene	330	U
78-59-1	Isophorone	330	U
91-57-6	2-Methylnaphthalene	19	J
95-48-7	2-Methylphenol	330	U
106-44-5	4-Methylphenol	330	U
91-20-3	Naphthalene	330	U
88-74-4	2-Nitroaniline	1600	U
99-09-2	3-Nitroaniline	1600	U
100-01-6	4-Nitroaniline	1600	U
98-95-3	Nitrobenzene	330	U
88-75-5	2-Nitrophenol	330	U
100-02-7	4-Nitrophenol	1600	U
86-30-6	N-nitrosodiphenylamine	330	U
621-64-7	N-Nitroso-Di-n-propylamine	330	U
87-86-5	Pentachlorophenol	1600	U
85-01-8	Phenanthrene	400	
108-95-2	Phenol	330	U
129-00-0	Pyrene	18	J
120-82-1	1,2,4-Trichlorobenzene	330	U
95-95-4	2,4,5-Trichlorophenol	800	U

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METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

000021

Client No.

SB-3 (10-12)

ab Name: STL Buffalo Contract: _____

ab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

atrix: (soil/water) SOIL Lab Sample ID: A1B63015

mple wt/vol: 30.91 (g/mL) G Lab File ID: Y49867.RR

evel: (low/med) LOW Date Samp/Recv: 11/15/2001 11/21/2001

Moisture: 10.9 decanted: (Y/N) N Date Extracted: 11/28/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/04/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

C Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
88-06-2	2,4,6-Trichlorophenol	330	U

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
TENTATIVELY IDENTIFIED COMPOUNDS

Client No.

SB-3 (10-12)

ab Name: STL Buffalo Contract: _____

ab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) SOIL Lab Sample ID: A1B63015

mple wt/vol: 30.91 (g/mL) G Lab File ID: Y49867.RR

vel: (low/med) LOW Date Samp/Recv: 11/15/2001 11/21/2001

Moisture: 10.9 decanted: (Y/N) N Date Extracted: 11/28/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/04/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

C Cleanup: (Y/N) N pH: _____

mber TICs found: 20 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q
1.	UNKNOWN ALKANE	12.58	690	J
2.	UNKNOWN CYCLOHEXANE DER.	13.06	480	J
3.	UNKNOWN HYDROCARBON	13.23	450	J
4.	UNKNOWN ALKANE	13.53	1000	J
5.	UNKNOWN ALKANE	14.71	740	J
6.	ETHYLNAPHTHALENE ISOMER	15.58	520	J
7.	DIMETHYLNAPHTHALENE ISOMER	15.75	490	J
8.	DIMETHYLNAPHTHALENE ISOMER	15.96	760	J
9.	UNKNOWN	16.05	460	J
10.	UNKNOWN ALKANE	16.33	1400	J
11.	TRIMETHYLNAPHTHALENE ISOMER	17.15	490	J
12.	TRIMETHYLNAPHTHALENE ISOMER	17.45	720	J
13.	TRIMETHYLNAPHTHALENE ISOMER	17.51	780	J
14.	UNKNOWN ALKANE	17.60	460	J
15.	TRIMETHYLNAPHTHALENE ISOMER	17.75	1200	J
16.	TRIMETHYLNAPHTHALENE ISOMER	17.96	470	J
17.	UNKNOWN ALKANE	18.81	1800	J
18.	UNKNOWN ALKANE	19.53	2800	J
19.	UNKNOWN PAH DER.	19.83	610	J
20.	UNKNOWN ALKANE	19.98	570	J

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METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

Client No.

SB-4 (6-8)

b Name: STL Buffalo Contract: _____

b Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) SOIL Lab Sample ID: A1B63016

mple wt/vol: 30.47 (g/mL) G Lab File ID: Y49884.RR

vel: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

Moisture: 18.6 decanted: (Y/N) N Date Extracted: 11/28/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/05/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

C Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
83-32-9	Acenaphthene	330	U
208-96-8	Acenaphthylene	330	U
120-12-7	Anthracene	330	U
56-55-3	Benzo(a)anthracene	330	U
205-99-2	Benzo(b)fluoranthene	330	U
207-08-9	Benzo(k)fluoranthene	330	U
191-24-2	Benzo(ghi)perylene	330	U
50-32-8	Benzo(a)pyrene	330	U
65-85-0	Benzoic acid	1600	U
100-51-6	Benzyl alcohol	330	U
111-91-1	Bis(2-chloroethoxy) methane	330	U
111-44-4	Bis(2-chloroethyl) ether	330	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	330	U
117-81-7	Bis(2-ethylhexyl) phthalate	330	U
101-55-3	4-Bromophenyl phenyl ether	330	U
85-68-7	Butyl benzyl phthalate	330	U
106-47-8	4-Chloroaniline	330	U
59-50-7	4-Chloro-3-methylphenol	330	U
91-58-7	2-Chloronaphthalene	330	U
95-57-8	2-Chlorophenol	330	U
7005-72-3	4-Chlorophenyl phenyl ether	330	U
218-01-9	Chrysene	330	U
53-70-3	Dibenzo(a,h)anthracene	330	U
132-64-9	Dibenzofuran	330	U
84-74-2	Di-n-butyl phthalate	330	U
95-50-1	1,2-Dichlorobenzene	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
91-94-1	3,3'-Dichlorobenzidine	660	U
120-83-2	2,4-Dichlorophenol	330	U
84-66-2	Diethyl phthalate	330	U
105-67-9	2,4-Dimethylphenol	330	U

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

Client No.

SB-4 (6-8)

Lab Name: STL Buffalo Contract: _____

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

Matrix: (soil/water) SOIL Lab Sample ID: A1B63016

Sample wt/vol: 30.47 (g/mL) G Lab File ID: Y49884.RR

Level: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

% Moisture: 18.6 decanted: (Y/N) N Date Extracted: 11/28/2001

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/05/2001

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
131-11-3	Dimethyl phthalate	330	U
534-52-1	4,6-Dinitro-2-methylphenol	1600	U
51-28-5	2,4-Dinitrophenol	1600	U
121-14-2	2,4-Dinitrotoluene	330	U
606-20-2	2,6-Dinitrotoluene	330	U
117-84-0	Di-n-octyl phthalate	330	U
206-44-0	Fluoranthene	330	U
86-73-7	Fluorene	330	U
118-74-1	Hexachlorobenzene	330	U
87-68-3	Hexachlorobutadiene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
67-72-1	Hexachloroethane	330	U
193-39-5	Indeno(1,2,3-cd)pyrene	330	U
78-59-1	Isophorone	330	U
91-57-6	2-Methylnaphthalene	330	U
95-48-7	2-Methylphenol	330	U
106-44-5	4-Methylphenol	330	U
91-20-3	Naphthalene	330	U
88-74-4	2-Nitroaniline	1600	U
99-09-2	3-Nitroaniline	1600	U
100-01-6	4-Nitroaniline	1600	U
98-95-3	Nitrobenzene	330	U
88-75-5	2-Nitrophenol	330	U
100-02-7	4-Nitrophenol	1600	U
86-30-6	N-nitrosodiphenylamine	330	U
621-64-7	N-Nitroso-Di-n-propylamine	330	U
87-86-5	Pentachlorophenol	1600	U
85-01-8	Phenanthrene	330	U
108-95-2	Phenol	330	U
129-00-0	Pyrene	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
95-95-4	2,4,5-Trichlorophenol	800	U

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METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

Client No.

SB-4 (6-8)

b Name: STL Buffalo Contract: _____

b Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) SOIL Lab Sample ID: A1B63016

mple wt/vol: 30.47 (g/mL) G Lab File ID: Y49884.RR

vel: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

Moisture: 18.6 decanted: (Y/N) N Date Extracted: 11/28/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/05/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

C Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
88-06-2	2,4,6-Trichlorophenol	330	U

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
TENTATIVELY IDENTIFIED COMPOUNDS

Client No.

SB-4 (6-8)

b Name: STL Buffalo Contract: _____

b Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) SOIL Lab Sample ID: A1B63016

mple wt/vol: 30.47 (g/mL) G Lab File ID: Y49884.RR

vel: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

Moisture: 18.6 decanted: (Y/N) N Date Extracted: 11/28/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/05/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

C Cleanup: (Y/N) N pH: _____

mber TICs found: 1 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q
1.	UNKNOWN	30.40	400	J

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

Client No.

SB-5 (8-10)

b Name: STL Buffalo Contract: _____

b Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) SOIL Lab Sample ID: A1B63017

mple wt/vol: 30.97 (g/mL) G Lab File ID: Y49885.RR

vel: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

Moisture: 10.9 decanted: (Y/N) N Date Extracted: 11/28/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/05/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

C Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
83-32-9	Acenaphthene	330	U
208-96-8	Acenaphthylene	330	U
120-12-7	Anthracene	330	U
56-55-3	Benzo(a)anthracene	330	U
205-99-2	Benzo(b)fluoranthene	330	U
207-08-9	Benzo(k)fluoranthene	330	U
191-24-2	Benzo(ghi)perylene	330	U
50-32-8	Benzo(a)pyrene	330	U
65-85-0	Benzoic acid	1600	U
100-51-6	Benzyl alcohol	330	U
111-91-1	Bis(2-chloroethoxy) methane	330	U
111-44-4	Bis(2-chloroethyl) ether	330	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	330	U
117-81-7	Bis(2-ethylhexyl) phthalate	330	U
101-55-3	4-Bromophenyl phenyl ether	330	U
85-68-7	Butyl benzyl phthalate	330	U
106-47-8	4-Chloroaniline	330	U
59-50-7	4-Chloro-3-methylphenol	330	U
91-58-7	2-Chloronaphthalene	330	U
95-57-8	2-Chlorophenol	330	U
7005-72-3	4-Chlorophenyl phenyl ether	330	U
218-01-9	Chrysene	330	U
53-70-3	Dibenzo(a,h)anthracene	330	U
132-64-9	Dibenzofuran	330	U
84-74-2	Di-n-butyl phthalate	330	U
95-50-1	1,2-Dichlorobenzene	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
91-94-1	3,3'-Dichlorobenzidine	660	U
120-83-2	2,4-Dichlorophenol	330	U
84-66-2	Diethyl phthalate	330	U
105-67-9	2,4-Dimethylphenol	330	U

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

Client No.

SB-5 (8-10)

Lab Name: STL Buffalo Contract: _____

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

Matrix: (soil/water) SOIL Lab Sample ID: A1B63017

Sample wt/vol: 30.97 (g/mL) G Lab File ID: Y49885.RR

Level: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

% Moisture: 10.9 decanted: (Y/N) N Date Extracted: 11/28/2001

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/05/2001

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
131-11-3	Dimethyl phthalate	330	U
534-52-1	4,6-Dinitro-2-methylphenol	1600	U
51-28-5	2,4-Dinitrophenol	1600	U
121-14-2	2,4-Dinitrotoluene	330	U
606-20-2	2,6-Dinitrotoluene	330	U
117-84-0	Di-n-octyl phthalate	330	U
206-44-0	Fluoranthene	330	U
86-73-7	Fluorene	330	U
118-74-1	Hexachlorobenzene	330	U
87-68-3	Hexachlorobutadiene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
67-72-1	Hexachloroethane	330	U
193-39-5	Indeno(1,2,3-cd)pyrene	330	U
78-59-1	Isophorone	330	U
91-57-6	2-Methylnaphthalene	330	U
95-48-7	2-Methylphenol	330	U
106-44-5	4-Methylphenol	330	U
91-20-3	Naphthalene	330	U
88-74-4	2-Nitroaniline	1600	U
99-09-2	3-Nitroaniline	1600	U
100-01-6	4-Nitroaniline	1600	U
98-95-3	Nitrobenzene	330	U
88-75-5	2-Nitrophenol	330	U
100-02-7	4-Nitrophenol	1600	U
86-30-6	N-nitrosodiphenylamine	330	U
621-64-7	N-Nitroso-Di-n-propylamine	330	U
87-86-5	Pentachlorophenol	1600	U
85-01-8	Phenanthrene	330	U
108-95-2	Phenol	330	U
129-00-0	Pyrene	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
95-95-4	2,4,5-Trichlorophenol	800	U

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

Client No.

SB-5 (8-10)

ab Name: STL Buffalo Contract: _____

ab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

atrix: (soil/water) SOIL Lab Sample ID: A1B63017

mple wt/vol: 30.97 (g/mL) G Lab File ID: Y49885.RR

vel: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

Moisture: 10.9 decanted: (Y/N) N Date Extracted: 11/28/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/05/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

C Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
88-06-2	2,4,6-Trichlorophenol	330	U

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
TENTATIVELY IDENTIFIED COMPOUNDS

Client No.

SB-5 (8-10)

ab Name: STL Buffalo Contract: _____

ab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

atrix: (soil/water) SOIL Lab Sample ID: A1B63017

mple wt/vol: 30.97 (g/mL) G Lab File ID: Y49885.RR

vel: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

Moisture: 10.9 decanted: (Y/N) N Date Extracted: 11/28/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/05/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

C Cleanup: (Y/N) N pH: _____

mber TICs found: 10 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

	CAS NO.	Compound Name	RT	Est. Conc.	Q
1.		UNKNOWN ALKANE	16.61	200	J
2.		UNKNOWN ALKANE	18.46	280	J
3.		UNKNOWN	18.56	150	J
4.		UNKNOWN ALKANE	19.10	400	J
5.		UNKNOWN ALKANE	19.73	280	J
6.		UNKNOWN ALKANE	19.81	570	J
7.		UNKNOWN ALKANE	20.93	250	J
8.		UNKNOWN ALKANE	22.08	260	J
9.		UNKNOWN ALKANE	23.16	180	J
10.		UNKNOWN	30.41	220	J

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

000031

Client No.

SB-6 (4-6)

Lab Name: STL Buffalo Contract: _____

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

Matrix: (soil/water) SOIL Lab Sample ID: A1B63018

Sample wt/vol: 30.51 (g/mL) G Lab File ID: Y49886.RR

Level: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

% Moisture: 13.6 decanted: (Y/N) N Date Extracted: 11/28/2001

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/05/2001

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
83-32-9	Acenaphthene	330	U
208-96-8	Acenaphthylene	330	U
120-12-7	Anthracene	330	U
56-55-3	Benzo(a)anthracene	330	U
205-99-2	Benzo(b)fluoranthene	330	U
207-08-9	Benzo(k)fluoranthene	330	U
191-24-2	Benzo(ghi)perylene	330	U
50-32-8	Benzo(a)pyrene	330	U
65-85-0	Benzoic acid	1600	U
100-51-6	Benzyl alcohol	330	U
111-91-1	Bis(2-chloroethoxy) methane	330	U
111-44-4	Bis(2-chloroethyl) ether	330	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	330	U
117-81-7	Bis(2-ethylhexyl) phthalate	330	U
101-55-3	4-Bromophenyl phenyl ether	330	U
85-68-7	Butyl benzyl phthalate	330	U
106-47-8	4-Chloroaniline	330	U
59-50-7	4-Chloro-3-methylphenol	330	U
91-58-7	2-Chloronaphthalene	330	U
95-57-8	2-Chlorophenol	330	U
7005-72-3	4-Chlorophenyl phenyl ether	330	U
218-01-9	Chrysene	330	U
53-70-3	Dibenzo(a,h)anthracene	330	U
132-64-9	Dibenzofuran	330	U
84-74-2	Di-n-butyl phthalate	330	U
95-50-1	1,2-Dichlorobenzene	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
91-94-1	3,3'-Dichlorobenzidine	660	U
120-83-2	2,4-Dichlorophenol	330	U
84-66-2	Diethyl phthalate	330	U
105-67-9	2,4-Dimethylphenol	330	U

T T CORP

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

Client No.

SB-6 (4-6)

b Name: STL Buffalo Contract: _____

b Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) SOIL Lab Sample ID: A1B63018

mple wt/vol: 30.51 (g/mL) G Lab File ID: Y49886.RR

vel: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

Moisture: 13.6 decanted: (Y/N) N Date Extracted: 11/28/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/05/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

C Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
131-11-3	Dimethyl phthalate	330	U
534-52-1	4,6-Dinitro-2-methylphenol	1600	U
51-28-5	2,4-Dinitrophenol	1600	U
121-14-2	2,4-Dinitrotoluene	330	U
606-20-2	2,6-Dinitrotoluene	330	U
117-84-0	Di-n-octyl phthalate	330	U
206-44-0	Fluoranthene	330	U
86-73-7	Fluorene	330	U
118-74-1	Hexachlorobenzene	330	U
87-68-3	Hexachlorobutadiene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
67-72-1	Hexachloroethane	330	U
193-39-5	Indeno(1,2,3-cd)pyrene	330	U
78-59-1	Isophorone	330	U
91-57-6	2-Methylnaphthalene	330	U
95-48-7	2-Methylphenol	330	U
106-44-5	4-Methylphenol	330	U
91-20-3	Naphthalene	330	U
88-74-4	2-Nitroaniline	1600	U
99-09-2	3-Nitroaniline	1600	U
100-01-6	4-Nitroaniline	1600	U
98-95-3	Nitrobenzene	330	U
88-75-5	2-Nitrophenol	330	U
100-02-7	4-Nitrophenol	1600	U
86-30-6	N-nitrosodiphenylamine	330	U
621-64-7	N-Nitroso-Di-n-propylamine	330	U
87-86-5	Pentachlorophenol	1600	U
85-01-8	Phenanthrene	330	U
108-95-2	Phenol	330	U
129-00-0	Pyrene	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
95-95-4	2,4,5-Trichlorophenol	800	U

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

Client No.

SB-6 (4-6)

b Name: STL Buffalo Contract: _____

b Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) SOIL Lab Sample ID: A1B63018

mple wt/vol: 30.51 (g/mL) G Lab File ID: Y49886.RR

vel: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

Moisture: 13.6 decanted: (Y/N) N Date Extracted: 11/28/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/05/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

C Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
88-06-2	2,4,6-Trichlorophenol	330	U

I T CORP
METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
TENTATIVELY IDENTIFIED COMPOUNDS

000034

Client No.

SB-6 (4-6)

b Name: STL Buffalo Contract: _____

b Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) SOIL Lab Sample ID: A1B63018

mple wt/vol: 30.51 (g/mL) G Lab File ID: Y49886.RR

vel: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

Moisture: 13.6 decanted: (Y/N) N Date Extracted: 11/28/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/05/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

C Cleanup: (Y/N) N pH: _____

mber TICs found: 1 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q
1. ~~79-34-5~~	~~1,1,2,2-TETRACHLOROETHANE~~	~~7.35~~	~~260~~	~~JN~~ R

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I T CORP
METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

Client No.

SB-7 (2-4)

b Name: STL Buffalo Contract: _____

b Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) SOIL Lab Sample ID: A1B63019

mple wt/vol: 30.68 (g/mL) G Lab File ID: Y49887.RR

vel: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

Moisture: 12.6 decanted: (Y/N) N Date Extracted: 11/28/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/05/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

C Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
83-32-9	Acenaphthene	330	U
208-96-8	Acenaphthylene	330	U
120-12-7	Anthracene	330	U
56-55-3	Benzo(a)anthracene	330	U
205-99-2	Benzo(b)fluoranthene	330	U
207-08-9	Benzo(k)fluoranthene	330	U
191-24-2	Benzo(ghi)perylene	330	U
50-32-8	Benzo(a)pyrene	330	U
65-85-0	Benzoic acid	1600	U
100-51-6	Benzyl alcohol	330	U
111-91-1	Bis(2-chloroethoxy) methane	330	U
111-44-4	Bis(2-chloroethyl) ether	330	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	330	U
117-81-7	Bis(2-ethylhexyl) phthalate	330	U
101-55-3	4-Bromophenyl phenyl ether	330	U
85-68-7	Butyl benzyl phthalate	330	U
106-47-8	4-Chloroaniline	330	U
59-50-7	4-Chloro-3-methylphenol	330	U
91-58-7	2-Chloronaphthalene	330	U
95-57-8	2-Chlorophenol	330	U
7005-72-3	4-Chlorophenyl phenyl ether	330	U
218-01-9	Chrysene	330	U
53-70-3	Dibenzo(a,h)anthracene	330	U
132-64-9	Dibenzofuran	330	U
84-74-2	Di-n-butyl phthalate	330	U
95-50-1	1,2-Dichlorobenzene	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
91-94-1	3,3'-Dichlorobenzidine	660	U
120-83-2	2,4-Dichlorophenol	330	U
84-66-2	Diethyl phthalate	330	U
105-67-9	2,4-Dimethylphenol	330	U

I T CORP

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

Client No.

SB-7 (2-4)

Lab Name: STL Buffalo Contract: _____

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

Matrix: (soil/water) SOIL Lab Sample ID: A1B63019

Sample wt/vol: 30.68 (g/mL) G Lab File ID: Y49887.RR

Level: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

% Moisture: 12.6 decanted: (Y/N) N Date Extracted: 11/28/2001

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/05/2001

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
88-06-2	2,4,6-Trichlorophenol	330	U

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METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
TENTATIVELY IDENTIFIED COMPOUNDS

Client No.

SB-7 (2-4)

b Name: STL Buffalo Contract: _____

b Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) SOIL Lab Sample ID: A1B63019

mple wt/vol: 30.68 (g/mL) G Lab File ID: Y49887.RR

vel: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

Moisture: 12.6 decanted: (Y/N) N Date Extracted: 11/28/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/05/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

C Cleanup: (Y/N) N pH: _____

mber TICs found: 1 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q
1. ~~79-34-5~~	~~1,1,2,2-TETRACHLOROETHANE~~	~~7.35~~	~~170~~	~~JN~~ R

12/23/02

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METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

Client No.

SB-700 (2-4)

Lab Name: STL Buffalo Contract: _____

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

Matrix: (soil/water) SOIL Lab Sample ID: A1B63020

Sample wt/vol: 30.60 (g/mL) G Lab File ID: Y49888.RR

Level: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

% Moisture: 12.7 decanted: (Y/N) N Date Extracted: 11/28/2001

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/05/2001

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
83-32-9	Acenaphthene	330	U
208-96-8	Acenaphthylene	330	U
120-12-7	Anthracene	330	U
56-55-3	Benzo(a)anthracene	330	U
205-99-2	Benzo(b)fluoranthene	330	U
207-08-9	Benzo(k)fluoranthene	330	U
191-24-2	Benzo(ghi)perylene	330	U
50-32-8	Benzo(a)pyrene	330	U
65-85-0	Benzoic acid	1600	U
100-51-6	Benzyl alcohol	330	U
111-91-1	Bis(2-chloroethoxy) methane	330	U
111-44-4	Bis(2-chloroethyl) ether	330	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	330	U
117-81-7	Bis(2-ethylhexyl) phthalate	330	U
101-55-3	4-Bromophenyl phenyl ether	330	U
85-68-7	Butyl benzyl phthalate	330	U
106-47-8	4-Chloroaniline	330	U
59-50-7	4-Chloro-3-methylphenol	330	U
91-58-7	2-Chloronaphthalene	330	U
95-57-8	2-Chlorophenol	330	U
7005-72-3	4-Chlorophenyl phenyl ether	330	U
218-01-9	Chrysene	330	U
53-70-3	Dibenzo(a,h)anthracene	330	U
132-64-9	Dibenzofuran	330	U
84-74-2	Di-n-butyl phthalate	330	U
95-50-1	1,2-Dichlorobenzene	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
91-94-1	3,3'-Dichlorobenzidine	660	U
120-83-2	2,4-Dichlorophenol	330	U
84-66-2	Diethyl phthalate	330	U
105-67-9	2,4-Dimethylphenol	330	U

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

Client No.

SB-700 (2-4)

b Name: STL Buffalo Contract: _____

b Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) SOIL Lab Sample ID: A1B63020

mple wt/vol: 30.60 (g/mL) G Lab File ID: Y49888.RR

vel: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

Moisture: 12.7 decanted: (Y/N) N Date Extracted: 11/28/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/05/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

C Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
131-11-3	Dimethyl phthalate	330	U
534-52-1	4,6-Dinitro-2-methylphenol	1600	U
51-28-5	2,4-Dinitrophenol	1600	U
121-14-2	2,4-Dinitrotoluene	330	U
606-20-2	2,6-Dinitrotoluene	330	U
117-84-0	Di-n-octyl phthalate	330	U
206-44-0	Fluoranthene	330	U
86-73-7	Fluorene	330	U
118-74-1	Hexachlorobenzene	330	U
87-68-3	Hexachlorobutadiene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
67-72-1	Hexachloroethane	330	U
193-39-5	Indeno(1,2,3-cd)pyrene	330	U
78-59-1	Isophorone	330	U
91-57-6	2-Methylnaphthalene	330	U
95-48-7	2-Methylphenol	330	U
106-44-5	4-Methylphenol	330	U
91-20-3	Naphthalene	330	U
88-74-4	2-Nitroaniline	1600	U
99-09-2	3-Nitroaniline	1600	U
100-01-6	4-Nitroaniline	1600	U
98-95-3	Nitrobenzene	330	U
88-75-5	2-Nitrophenol	330	U
100-02-7	4-Nitrophenol	1600	U
86-30-6	N-nitrosodiphenylamine	330	U
621-64-7	N-Nitroso-Di-n-propylamine	330	U
87-86-5	Pentachlorophenol	1600	U
85-01-8	Phenanthrene	330	U
108-95-2	Phenol	330	U
129-00-0	Pyrene	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
95-95-4	2,4,5-Trichlorophenol	800	U

I T CORP

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

Client No.

SB-700 (2-4)

b Name: STL Buffalo Contract: _____

b Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) SOIL Lab Sample ID: A1B63020

mple wt/vol: 30.60 (g/mL) G Lab File ID: Y49888.RR

vel: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

Moisture: 12.7 decanted: (Y/N) N Date Extracted: 11/28/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/05/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

C Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
88-06-2	2,4,6-Trichlorophenol	330	U

T T CORP

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
TENTATIVELY IDENTIFIED COMPOUNDS

Client No.

SB-700 (2-4)

b Name: STL Buffalo Contract: _____

b Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) SOIL Lab Sample ID: A1B63020

mple wt/vol: 30.60 (g/mL) G Lab File ID: Y49888.RR

vel: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

Moisture: 12.7 decanted: (Y/N) N Date Extracted: 11/28/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/05/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

C Cleanup: (Y/N) N pH: _____

mber TICs found: 1 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q
1. ~~79-34-5~~	~~1,1,2,2 TETRACHLOROETHANE~~	~~7.35~~	~~260~~	~~BN~~ R

07/28/02

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

000043

Client No.

SS-1

b Name: SIL Buffalo Contract: _____

b Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) SOIL Lab Sample ID: A1B63001

mple wt/vol: 30.17 (g/mL) G Lab File ID: Y49853.RR

vel: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

Moisture: 16.4 decanted: (Y/N) N Date Extracted: 11/28/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/03/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

C Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
83-32-9	Acenaphthene	330	U
208-96-8	Acenaphthylene	330	U
120-12-7	Anthracene	330	U
56-55-3	Benzo(a)anthracene	330	U
205-99-2	Benzo(b)fluoranthene	330	U
207-08-9	Benzo(k)fluoranthene	330	U J
191-24-2	Benzo(ghi)perylene	330	U
50-32-8	Benzo(a)pyrene	330	U
65-85-0	Benzoic acid	1600	U
100-51-6	Benzyl alcohol	330	U
111-91-1	Bis(2-chloroethoxy) methane	330	U
111-44-4	Bis(2-chloroethyl) ether	330	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	330	U
117-81-7	Bis(2-ethylhexyl) phthalate	330	U
101-55-3	4-Bromophenyl phenyl ether	330	U
85-68-7	Butyl benzyl phthalate	330	U
106-47-8	4-Chloroaniline	330	U
59-50-7	4-Chloro-3-methylphenol	330	U
91-58-7	2-Chloronaphthalene	330	U
95-57-8	2-Chlorophenol	330	U
7005-72-3	4-Chlorophenyl phenyl ether	330	U
218-01-9	Chrysene	330	U
53-70-3	Dibenzo(a,h)anthracene	330	U
132-64-9	Dibenzofuran	330	U
84-74-2	Di-n-butyl phthalate	330	U
95-50-1	1,2-Dichlorobenzene	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
91-94-1	3,3'-Dichlorobenzidine	660	U
120-83-2	2,4-Dichlorophenol	330	U
84-66-2	Diethyl phthalate	330	U
105-67-9	2,4-Dimethylphenol	330	U

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METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

Client No.

SS-1

b Name: STL Buffalo Contract: _____

b Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) SOIL Lab Sample ID: A1B63001

mple wt/vol: 30.17 (g/mL) G Lab File ID: Y49853.RR

vel: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

Moisture: 16.4 decanted: (Y/N) N Date Extracted: 11/28/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/03/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

C Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
131-11-3	Dimethyl phthalate	330	U
534-52-1	4,6-Dinitro-2-methylphenol	1600	U
51-28-5	2,4-Dinitrophenol	1600	U
121-14-2	2,4-Dinitrotoluene	330	U
606-20-2	2,6-Dinitrotoluene	330	U
117-84-0	Di-n-octyl phthalate	330	U
206-44-0	Fluoranthene	330	U
86-73-7	Fluorene	330	U
118-74-1	Hexachlorobenzene	330	U
87-68-3	Hexachlorobutadiene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
67-72-1	Hexachloroethane	330	U
193-39-5	Indeno(1,2,3-cd)pyrene	330	U
78-59-1	Isophorone	330	U
91-57-6	2-Methylnaphthalene	330	U
95-48-7	2-Methylphenol	330	U
106-44-5	4-Methylphenol	330	U
91-20-3	Naphthalene	330	U
88-74-4	2-Nitroaniline	1600	U
99-09-2	3-Nitroaniline	1600	U
100-01-6	4-Nitroaniline	1600	U
98-95-3	Nitrobenzene	330	U
88-75-5	2-Nitrophenol	330	U
100-02-7	4-Nitrophenol	1600	U
86-30-6	N-nitrosodiphenylamine	330	U
621-64-7	N-Nitroso-Di-n-propylamine	330	U
87-86-5	Pentachlorophenol	1600	U
85-01-8	Phenanthrene	330	U
108-95-2	Phenol	330	U
129-00-0	Pyrene	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
95-95-4	2,4,5-Trichlorophenol	800	U

CWF 07/23/02

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

000045

Client No.

SS-1

b Name: STL Buffalo Contract: _____

b Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) SOIL Lab Sample ID: A1B63001

mple wt/vol: 30.17 (g/mL) G Lab File ID: Y49853.RR

vel: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

Moisture: 16.4 decanted: (Y/N) N Date Extracted: 11/28/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/03/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

C Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
88-06-2	2,4,6-Trichlorophenol	330	U

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
TENTATIVELY IDENTIFIED COMPOUNDS

000046

Client No.

SS-1

b Name: STL Buffalo Contract: _____

b Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) SOIL Lab Sample ID: A1B63001

mple wt/vol: 30.17 (g/mL) G Lab File ID: Y49853.RR

vel: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

Moisture: 16.4 decanted: (Y/N) N Date Extracted: 11/28/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/03/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

C Cleanup: (Y/N) N pH: _____

mber TICs found: 8 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q
1. ~~79-34-5~~	~~1,1,2,2-TETRACHLOROETHANE~~	~~6.98~~	~~240~~	~~JN~~ R
2.	UNKNOWN HYDROCARBON	27.65	170	J
3.	UNKNOWN HYDROCARBON	29.36	250	J
4.	UNKNOWN HYDROCARBON	30.45	320	J
5.	UNKNOWN ALKANE	30.88	190	J
6.	UNKNOWN ALKANE	32.36	220	J
7.	UNKNOWN ALKANE	33.80	160	J
8.	UNKNOWN	34.40	180	J

cwf 07/23/02

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

Client No.

SS-2

b Name: SIL Buffalo Contract: _____

b Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) SOIL Lab Sample ID: A1B63002

mple wt/vol: 30.53 (g/mL) G Lab File ID: Y49856.RR

vel: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

Moisture: 13.7 decanted: (Y/N) N Date Extracted: 11/28/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/04/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

C Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
83-32-9	Acenaphthene	330	U
208-96-8	Acenaphthylene	330	U
120-12-7	Anthracene	330	U
56-55-3	Benzo(a)anthracene	330	U
205-99-2	Benzo(b)fluoranthene	330	U
207-08-9	Benzo(k)fluoranthene	330	U J
191-24-2	Benzo(ghi)perylene	330	U
50-32-8	Benzo(a)pyrene	330	U
65-85-0	Benzoic acid	1600	U
100-51-6	Benzyl alcohol	330	U
111-91-1	Bis(2-chloroethoxy) methane	330	U
111-44-4	Bis(2-chloroethyl) ether	330	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	330	U
117-81-7	Bis(2-ethylhexyl) phthalate	330	U
101-55-3	4-Bromophenyl phenyl ether	330	U
85-68-7	Butyl benzyl phthalate	330	U
106-47-8	4-Chloroaniline	330	U
59-50-7	4-Chloro-3-methylphenol	330	U
91-58-7	2-Chloronaphthalene	330	U
95-57-8	2-Chlorophenol	330	U
7005-72-3	4-Chlorophenyl phenyl ether	330	U
218-01-9	Chrysene	330	U
53-70-3	Dibenzo(a,h)anthracene	330	U
132-64-9	Dibenzofuran	330	U
84-74-2	Di-n-butyl phthalate	330	U
95-50-1	1,2-Dichlorobenzene	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
91-94-1	3,3'-Dichlorobenzidine	660	U
120-83-2	2,4-Dichlorophenol	330	U
84-66-2	Diethyl phthalate	330	U
105-67-9	2,4-Dimethylphenol	330	U

CWT 07/23/02

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

Client No.

SS-2

Name: STL Buffalo Contract: _____

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

Matrix: (soil/water) SOIL Lab Sample ID: A1B63002

Sample wt/vol: 30.53 (g/mL) G Lab File ID: Y49856.RR

Level: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

% Moisture: 13.7 decanted: (Y/N) N Date Extracted: 11/28/2001

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/04/2001

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
131-11-3	Dimethyl phthalate	330	U
534-52-1	4,6-Dinitro-2-methylphenol	1600	U
51-28-5	2,4-Dinitrophenol	1600	UJ
121-14-2	2,4-Dinitrotoluene	330	U
606-20-2	2,6-Dinitrotoluene	330	U
117-84-0	Di-n-octyl phthalate	330	U
206-44-0	Fluoranthene	330	U
86-73-7	Fluorene	330	U
118-74-1	Hexachlorobenzene	330	U
87-68-3	Hexachlorobutadiene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
67-72-1	Hexachloroethane	330	U
193-39-5	Indeno(1,2,3-cd)pyrene	330	U
78-59-1	Isophorone	330	UJ
91-57-6	2-Methylnaphthalene	330	U
95-48-7	2-Methylphenol	330	U
106-44-5	4-Methylphenol	330	U
91-20-3	Naphthalene	330	U
88-74-4	2-Nitroaniline	1600	U
99-09-2	3-Nitroaniline	1600	U
100-01-6	4-Nitroaniline	1600	U
98-95-3	Nitrobenzene	330	U
88-75-5	2-Nitrophenol	330	U
100-02-7	4-Nitrophenol	1600	U
86-30-6	N-nitrosodiphenylamine	330	U
621-64-7	N-Nitroso-Di-n-propylamine	330	U
87-86-5	Pentachlorophenol	1600	U
85-01-8	Phenanthrene	330	U
108-95-2	Phenol	330	U
129-00-0	Pyrene	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
95-95-4	2,4,5-Trichlorophenol	800	U

CWS 07/23/02

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

000049

Client No.

SS-2

b Name: STL Buffalo Contract: _____

b Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) SOIL Lab Sample ID: A1B63002

mple wt/vol: 30.53 (g/mL) G Lab File ID: Y49856.RR

vel: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

Moisture: 13.7 decanted: (Y/N) N Date Extracted: 11/28/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/04/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

C Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
88-06-2	2,4,6-Trichlorophenol	330	U

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
TENTATIVELY IDENTIFIED COMPOUNDS

Client No.

SS-2

b Name: STL Buffalo Contract: _____

b Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) SOIL Lab Sample ID: A1B63002

mple wt/vol: 30.53 (g/mL) G Lab File ID: Y49856.RR

vel: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

Moisture: 13.7 decanted: (Y/N) N Date Extracted: 11/28/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/04/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

C Cleanup: (Y/N) N pH: _____

mber TICs found: 3 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q
1.	UNKNOWN HYDROCARBON	27.65	200	J
2.	UNKNOWN HYDROCARBON	29.35	250	J
3.	UNKNOWN HYDROCARBON	30.45	170	J

I T CORP

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS ANALYSIS DATA SHEET

000051

Client No.

SS-3

b Name: STL Buffalo Contract: _____

b Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) SOIL Lab Sample ID: A1B63003

mple wt/vol: 30.04 (g/mL) G Lab File ID: Y49857.RR

vel: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

Moisture: 15.8 decanted: (Y/N) N Date Extracted: 11/28/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/04/2001

jection Volume: 1.00 (uL) Dilution Factor: 10.00

C Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
83-32-9	Acenaphthene	400	U
208-96-8	Acenaphthylene	400	U
120-12-7	Anthracene	400	U
56-55-3	Benzo(a)anthracene	400	U
205-99-2	Benzo(b)fluoranthene	400	U
207-08-9	Benzo(k)fluoranthene	400	U
191-24-2	Benzo(ghi)perylene	400	U
50-32-8	Benzo(a)pyrene	400	U
65-85-0	Benzoic acid	1600 16000	U
100-51-6	Benzyl alcohol	1600 16000	U
111-91-1	Bis(2-chloroethoxy) methane	400	U
111-44-4	Bis(2-chloroethyl) ether	400	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	400	U
117-81-7	Bis(2-ethylhexyl) phthalate	590 5900	U
101-55-3	4-Bromophenyl phenyl ether	590 5900	U
85-68-7	Butyl benzyl phthalate	400	U
106-47-8	4-Chloroaniline	400	U
59-50-7	4-Chloro-3-methylphenol	400	U
91-58-7	2-Chloronaphthalene	400	U
95-57-8	2-Chlorophenol	400	U
7005-72-3	4-Chlorophenyl phenyl ether	400	U
218-01-9	Chrysene	400	U
53-70-3	Dibenzo(a,h)anthracene	400	U
132-64-9	Dibenzofuran	400	U
84-74-2	Di-n-butyl phthalate	400	U
95-50-1	1,2-Dichlorobenzene	400	U
541-73-1	1,3-Dichlorobenzene	400	U
106-46-7	1,4-Dichlorobenzene	400	U
91-94-1	3,3'-Dichlorobenzidine	660 6600	U
120-83-2	2,4-Dichlorophenol	320 3200	U
84-66-2	Diethyl phthalate	400 4000	U
105-67-9	2,4-Dimethylphenol	590 5900	U

4000 U

4000 U

4000 U

CWT 07/22/02

CWT 07/23/02

T T CORP

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

00005?

Client No.

SS-3

b Name: STL Buffalo Contract: _____

b Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) SOIL Lab Sample ID: A1B63003

mple wt/vol: 30.04 (g/mL) G Lab File ID: Y49857.RR

vel: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

Moisture: 15.8 decanted: (Y/N) N Date Extracted: 11/28/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/04/2001

jection Volume: 1.00 (uL) Dilution Factor: 10.00

C Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
131-11-3	Dimethyl phthalate	~~400~~ 4000	U
534-52-1	4,6-Dinitro-2-methylphenol	~~1600~~ 16000	U
51-28-5	2,4-Dinitrophenol	~~1600~~ 16000	U J
121-14-2	2,4-Dinitrotoluene	~~400~~ 4000	U
606-20-2	2,6-Dinitrotoluene	~~590~~ 5900	U
117-84-0	Di-n-octyl phthalate	~~400~~ 4000	U
206-44-0	Fluoranthene	~~590~~ 5900	U
86-73-7	Fluorene	~~590~~ 5900	U
118-74-1	Hexachlorobenzene	~~400~~ 4000	U
87-68-3	Hexachlorobutadiene	~~400~~ 4000	U
77-47-4	Hexachlorocyclopentadiene	~~590~~ 5900	U
67-72-1	Hexachloroethane	~~330~~ 3300	U
193-39-5	Indeno(1,2,3-cd)pyrene	~~790~~ 7900	U
78-59-1	Isophorone	~~400~~ 4000	U J
91-57-6	2-Methylnaphthalene	~~400~~ 4000	U
95-48-7	2-Methylphenol	~~790~~ 7900	U
106-44-5	4-Methylphenol	~~400~~ 4000	U
91-20-3	Naphthalene	~~400~~ 4000	U
88-74-4	2-Nitroaniline	1600	U
99-09-2	3-Nitroaniline	1600 16000	U
100-01-6	4-Nitroaniline	1600	U
98-95-3	Nitrobenzene	~~710~~ 7100	U
88-75-5	2-Nitrophenol	~~400~~ 4000	U
100-02-7	4-Nitrophenol	~~1600~~ 16000	U
86-30-6	N-nitrosodiphenylamine	~~400~~ 4000	U
621-64-7	N-Nitroso-Di-n-propylamine	~~360~~ 3600	U
87-86-5	Pentachlorophenol	~~1600~~ 16000	U
85-01-8	Phenanthrene	~~400~~ 4000	U
108-95-2	Phenol	~~790~~ 7900	U
129-00-0	Pyrene	~~590~~ 5900	U
120-82-1	1,2,4-Trichlorobenzene	~~330~~ 3300	U
95-95-4	2,4,5-Trichlorophenol	~~800~~ 8000	U

CMT 01/23/02

CMT 01/23/02

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

000053
Client No.

SS-3

b Name: STL Buffalo Contract: _____

b Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) SOIL Lab Sample ID: A1B63003

mple wt/vol: 30.04 (g/mL) G Lab File ID: Y49857.RR

vel: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

Moisture: 15.8 decanted: (Y/N) N Date Extracted: 11/28/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/04/2001

jection Volume: 1.00 (uL) Dilution Factor: 10.00

C Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
88-06-2	2,4,6-Trichlorophenol	~~1200~~ 2000	U

CW 07/22/02

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
TENTATIVELY IDENTIFIED COMPOUNDS

000654

Client No.

SS-3

b Name: STL Buffalo Contract: _____

b Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) SOIL Lab Sample ID: A1B63003

mple wt/vol: 30.04 (g/mL) G Lab File ID: Y49857.RR

vel: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

Moisture: 15.8 decanted: (Y/N) N Date Extracted: 11/28/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/04/2001

jection Volume: 1.00 (uL) Dilution Factor: 10.00

C Cleanup: (Y/N) N pH: _____

mber TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

Client No.: SS-4

b Name: STL Buffalo Contract: _____

b Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) SOIL Lab Sample ID: A1B63004

mple wt/vol: 30.40 (g/mL) G Lab File ID: Y49858.RR

vel: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

Moisture: 7.2 decanted: (Y/N) N Date Extracted: 11/28/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/04/2001

jection Volume: 1.00 (uL) Dilution Factor: 5.00

C Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
83-32-9	Acenaphthene	330	U
208-96-8	Acenaphthylene	330	U
120-12-7	Anthracene	330	U
56-55-3	Benzo(a)anthracene	330 (1650 U)	U
205-99-2	Benzo(b)fluoranthene	330	U
207-08-9	Benzo(k)fluoranthene	330	U
191-24-2	Benzo(ghi)perylene	330	U
50-32-8	Benzo(a)pyrene	330	U
65-85-0	Benzoic acid	~~1600~~ 8000	U
100-51-6	Benzyl alcohol	~~710~~ 3550	U
111-91-1	Bis(2-chloroethoxy) methane	330	U
111-44-4	Bis(2-chloroethyl) ether	330	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	330	U
117-81-7	Bis(2-ethylhexyl) phthalate	330	U
101-55-3	4-Bromophenyl phenyl ether	330	U
85-68-7	Butyl benzyl phthalate	330 (1650 U)	U
106-47-8	4-Chloroaniline	330	U
59-50-7	4-Chloro-3-methylphenol	330	U
91-58-7	2-Chloronaphthalene	330	U
95-57-8	2-Chlorophenol	330	U
7005-72-3	4-Chlorophenyl phenyl ether	330	U
218-01-9	Chrysene	330	U
53-70-3	Dibenzo(a,h)anthracene	330	U
132-64-9	Dibenzofuran	330	U
84-74-2	Di-n-butyl phthalate	330	U
95-50-1	1,2-Dichlorobenzene	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
91-94-1	3,3'-Dichlorobenzidine	~~660~~ 3300	U
120-83-2	2,4-Dichlorophenol	330 (1650 U)	U
84-66-2	Diethyl phthalate	330	U
105-67-9	2,4-Dimethylphenol	330	U

conf 12/28/02

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

000056

Client No.

SS-4

b Name: SIL Buffalo Contract: _____

b Code: REKNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) SOIL Lab Sample ID: A1B63004

mple wt/vol: 30.40 (g/mL) G Lab File ID: Y49858.RR

vel: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

Moisture: 7.2 decanted: (Y/N) N Date Extracted: 11/28/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/04/2001

jection Volume: 1.00 (uL) Dilution Factor: 5.00

Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
131-11-3	Dimethyl phthalate	330 1650	U
534-52-1	4,6-Dinitro-2-methylphenol	1600 8000 U	U
51-28-5	2,4-Dinitrophenol	1600	UJ
121-14-2	2,4-Dinitrotoluene	330	U
606-20-2	2,6-Dinitrotoluene	330	U
117-84-0	Di-n-octyl phthalate	330	U
206-44-0	Fluoranthene	330	U
86-73-7	Fluorene	330	U
118-74-1	Hexachlorobenzene	330 1650 U	U
87-68-3	Hexachlorobutadiene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
67-72-1	Hexachloroethane	330	U
193-39-5	Indeno(1,2,3-cd)pyrene	330	U
78-59-1	Isophorone	330	UJ
91-57-6	2-Methylnaphthalene	330	U
95-48-7	2-Methylphenol	330	U
106-44-5	4-Methylphenol	330	U
91-20-3	Naphthalene	330	U
88-74-4	2-Nitroaniline	1600	U
99-09-2	3-Nitroaniline	1600 8000 U	U
100-01-6	4-Nitroaniline	1600	U
98-95-3	Nitrobenzene	330	U
88-75-5	2-Nitrophenol	330 1650 U	U
100-02-7	4-Nitrophenol	1600 8000	U
86-30-6	N-nitrosodiphenylamine	330 1650 U	U
621-64-7	N-Nitroso-Di-n-propylamine	330	U
87-86-5	Pentachlorophenol	1600 8000	U
85-01-8	Phenanthrene	330	U
108-95-2	Phenol	330 1650 U	U
129-00-0	Pyrene	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
95-95-4	2,4,5-Trichlorophenol	800 4000	U

07/23/02

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

000057

Client No.

SS-4

b Name: STL Buffalo Contract: _____

b Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) SOIL Lab Sample ID: A1B63004

mple wt/vol: 30.40 (g/mL) G Lab File ID: Y49858.RR

vel: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

Moisture: 7.2 decanted: (Y/N) N Date Extracted: 11/28/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/04/2001

jection Volume: 1.00 (uL) Dilution Factor: 5.00

C Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
88-06-2	2,4,6-Trichlorophenol	~~530~~ 2650	U

Dnc 07/23/02

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
TENTATIVELY IDENTIFIED COMPOUNDS

Client No.

SS-4

b Name: SIL Buffalo Contract: _____

b Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

:rix: (soil/water) SOIL Lab Sample ID: A1B63004

ple wt/vol: 30.40 (g/mL) G Lab File ID: Y49858.RR

vel: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

loisture: 7.2 decanted: (Y/N) N Date Extracted: 11/28/2001

centrated Extract Volume: 1000 (uL) Date Analyzed: 12/04/2001

ection Volume: 1.00 (uL) Dilution Factor: 5.00

Cleanup: (Y/N) N pH: _____

ber TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

000059

Client No.

SS-5

Name: STL Buffalo Contract: _____

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

Matrix: (soil/water) SOIL Lab Sample ID: A1B63005

Sample wt/vol: 30.54 (g/mL) G Lab File ID: Y49859.RR

Level: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

% Moisture: 6.1 decanted: (Y/N) N Date Extracted: 11/28/2001

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/04/2001

Injection Volume: 1.00 (uL) Dilution Factor: 10.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
83-32-9	Acenaphthene	350	U
208-96-8	Acenaphthylene	350	U
120-12-7	Anthracene	350	U
56-55-3	Benzo(a)anthracene	350	U
205-99-2	Benzo(b)fluoranthene	350	U
207-08-9	Benzo(k)fluoranthene	350	U
191-24-2	Benzo(ghi)perylene	350	U
50-32-8	Benzo(a)pyrene	350	U
65-85-0	Benzoic acid	1600 16000	U
100-51-6	Benzyl alcohol	1400 14000	U
111-91-1	Bis(2-chloroethoxy) methane	350	U
111-44-4	Bis(2-chloroethyl) ether	350	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	350	U
117-81-7	Bis(2-ethylhexyl) phthalate	520 5200	U
101-55-3	4-Bromophenyl phenyl ether	520 5200	U
85-68-7	Butyl benzyl phthalate	350	U
106-47-8	4-Chloroaniline	350	U
59-50-7	4-Chloro-3-methylphenol	350	U
91-58-7	2-Chloronaphthalene	350	U
95-57-8	2-Chlorophenol	350	U
7005-72-3	4-Chlorophenyl phenyl ether	350	U
218-01-9	Chrysene	260	J
53-70-3	Dibenzo(a,h)anthracene	350	U
132-64-9	Dibenzofuran	350	U
84-74-2	Di-n-butyl phthalate	350	U
95-50-1	1,2-Dichlorobenzene	350	U
541-73-1	1,3-Dichlorobenzene	350	U
106-46-7	1,4-Dichlorobenzene	350	U
91-94-1	3,3'-Dichlorobenzidine	660 6600	U
120-83-2	2,4-Dichlorophenol	330 3300	U
84-66-2	Diethyl phthalate	350 3500	U
105-67-9	2,4-Dimethylphenol	520 5200	U

FORM I - GC/MS BNA

DMT 07/23/02

T T CORP

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

Client No.

SS-5

ab Name: STL Buffalo Contract: _____

ab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

atrix: (soil/water) SOIL Lab Sample ID: A1B63005

mple wt/vol: 30.54 (g/mL) G Lab File ID: Y49859.RR

vel: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

Moisture: 6.1 decanted: (Y/N) N Date Extracted: 11/28/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/04/2001

jection Volume: 1.00 (uL) Dilution Factor: 10.00

C Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
131-11-3	Dimethyl phthalate	350 3500	U
534-52-1	4,6-Dinitro-2-methylphenol	1600	U
51-28-5	2,4-Dinitrophenol	1600 16000	U J
121-14-2	2,4-Dinitrotoluene	350 3500	U
606-20-2	2,6-Dinitrotoluene	520 5200	U
117-84-0	Di-n-octyl phthalate	350 3500	U
206-44-0	Fluoranthene	310	J
86-73-7	Fluorene	520 5200	U
118-74-1	Hexachlorobenzene	350 3500	U
87-68-3	Hexachlorobutadiene	350 3500 u	U
77-47-4	Hexachlorocyclopentadiene	520 5200	U
67-72-1	Hexachloroethane	330 3300	U
193-39-5	Indeno(1,2,3-cd)pyrene	700 7000	U
78-59-1	Isophorone	350 3500	U J
91-57-6	2-Methylnaphthalene	350 3500	U
95-48-7	2-Methylphenol	700 7000	U
106-44-5	4-Methylphenol	350 3500	U
91-20-3	Naphthalene	350 3500 u	U
88-74-4	2-Nitroaniline	1600 16000	U
99-09-2	3-Nitroaniline	1600 16000 u	U
100-01-6	4-Nitroaniline	1600	U
98-95-3	Nitrobenzene	630 6300	U
88-75-5	2-Nitrophenol	350 3500	U
100-02-7	4-Nitrophenol	1600 16000	U
86-30-6	N-nitrosodiphenylamine	350 3500	U
621-64-7	N-Nitroso-Di-n-propylamine	330 3300	U
87-86-5	Pentachlorophenol * 270 000	210000	E
85-01-8	Phenanthrene	350 3500	U
108-95-2	Phenol	700 7000	U
129-00-0	Pyrene	1300	
120-82-1	1,2,4-Trichlorobenzene	330 3300	U
95-95-4	2,4,5-Trichlorophenol	800 8000	U

CNT 07/23/02

* pentachlorophenol result From 100x dilution

CNT 07/23/02

A T CORP

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

000061

Client No.

SS-5

b Name: STL Buffalo Contract: _____

o Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) SOIL Lab Sample ID: A1B63005

mple wt/vol: 30.54 (g/mL) G Lab File ID: Y49859.RR

vel: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

Moisture: 6.1 decanted: (Y/N) N Date Extracted: 11/28/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/04/2001

jection Volume: 1.00 (uL) Dilution Factor: 10.00

C Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
88-06-2	2,4,6-Trichlorophenol	~~1000~~ 10000	U

AWF 01/23/02

A T CORP
METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
TENTATIVELY IDENTIFIED COMPOUNDS

000052
Client No.

SS-5

o Name: STL Buffalo Contract: _____

o Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) SOIL Lab Sample ID: A1B63005

mple wt/vol: 30.54 (g/mL) G Lab File ID: Y49859.RR

vel: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

Moisture: 6.1 decanted: (Y/N) N Date Extracted: 11/28/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/04/2001

jection Volume: 1.00 (uL) Dilution Factor: 10.00

C Cleanup: (Y/N) N pH: _____

mber TICs found: 20 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q
1.	UNKNOWN ALKANE	12.58	6600	J
2.	UNKNOWN HYDROCARBON	12.85	4400	J
3.	UNKNOWN HYDROCARBON	13.23	6300	J
4.	UNKNOWN ALKANE	13.53	22000	J
5.	UNKNOWN ALKANE	14.23	8600	J
6.	UNKNOWN HYDROCARBON	14.38	6500	J
7.	UNKNOWN HYDROCARBON	14.50	5500	J
8.	UNKNOWN ALKANE	15.46	8600	J
9.	UNKNOWN ALKANE	16.36	9100	J
10.	UNKNOWN ALKANE	17.73	4300	J
11.	UNKNOWN ALKANE	18.21	10000	J
12.	UNKNOWN ALKANE	18.85	17000	J
13.	UNKNOWN ALKANE	19.48	13000	J
14.	UNKNOWN ALKANE	19.56	20000	J
15.	UNKNOWN ALKANE	20.01	6400	J
16.	UNKNOWN ALKANE	20.66	11000	J
17.	UNKNOWN ALKANE	21.80	9800	J
18.	UNKNOWN ALKANE	22.88	8000	J
19.	UNKNOWN ALKANE	24.90	13000	J
20.	UNKNOWN ALKANE	25.85	5500	J

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

000065 Client No.

SS-6

b Name: STL Buffalo Contract: _____

b Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) SOIL Lab Sample ID: A1B63006

mple wt/vol: 30.91 (g/mL) G Lab File ID: Y49860.RR

vel: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

Moisture: 10.9 decanted: (Y/N) N Date Extracted: 11/28/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/04/2001

jection Volume: 1.00 (uL) Dilution Factor: 5.00

Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG		Q
83-32-9	Acenaphthene	330		U
208-96-8	Acenaphthylene	330		U
120-12-7	Anthracene	330	1650	U
56-55-3	Benzo(a)anthracene	330	U	U
205-99-2	Benzo(b)fluoranthene	330		U
207-08-9	Benzo(k)fluoranthene	330		U
191-24-2	Benzo(ghi)perylene	330		U
50-32-8	Benzo(a)pyrene	330		U
65-85-0	Benzoic acid	1600	8000	U
100-51-6	Benzyl alcohol	730	3650	U
111-91-1	Bis(2-chloroethoxy) methane	330		U
111-44-4	Bis(2-chloroethyl) ether	330	1650	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	330	U	U
117-81-7	Bis(2-ethylhexyl) phthalate	170		J
101-55-3	4-Bromophenyl phenyl ether	330		U
85-68-7	Butyl benzyl phthalate	330		U
106-47-8	4-Chloroaniline	330		U
59-50-7	4-Chloro-3-methylphenol	330		U
91-58-7	2-Chloronaphthalene	330		U
95-57-8	2-Chlorophenol	330	1650	U
7005-72-3	4-Chlorophenyl phenyl ether	330	U	U
218-01-9	Chrysene	330		U
53-70-3	Dibenzo(a,h)anthracene	330		U
132-64-9	Dibenzofuran	330		U
84-74-2	Di-n-butyl phthalate	330		U
95-50-1	1,2-Dichlorobenzene	330		U
541-73-1	1,3-Dichlorobenzene	330		U
106-46-7	1,4-Dichlorobenzene	330		U
91-94-1	3,3'-Dichlorobenzidine	660		U
120-83-2	2,4-Dichlorophenol	330	1650	U
84-66-2	Diethyl phthalate	330	U	U
105-67-9	2,4-Dimethylphenol	330		U

Cmt 07/23/02

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

Client No.: SS-6

Lab Name: STL Buffalo Contract: _____

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

Matrix: (soil/water) SOIL Lab Sample ID: A1B63006

Sample wt/vol: 30.91 (g/mL) G Lab File ID: Y49860.RR

Level: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

% Moisture: 10.9 decanted: (Y/N) N Date Extracted: 11/28/2001

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/04/2001

Injection Volume: 1.00 (uL) Dilution Factor: 5.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
131-11-3	Dimethyl phthalate	~~330~~ 1650	U
534-52-1	4,6-Dinitro-2-methylphenol	1600	U
51-28-5	2,4-Dinitrophenol	1600	UJ
121-14-2	2,4-Dinitrotoluene	330	U
606-20-2	2,6-Dinitrotoluene	330	U
117-84-0	Di-n-octyl phthalate	330	U
206-44-0	Fluoranthene	120	J
86-73-7	Fluorene	330	U
118-74-1	Hexachlorobenzene	330	U
87-68-3	Hexachlorobutadiene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
67-72-1	Hexachloroethane	330	U
193-39-5	Indeno(1,2,3-cd)pyrene	360	U
78-59-1	Isophorone	330	UJ
91-57-6	2-Methylnaphthalene	330	U
95-48-7	2-Methylphenol	360	U
106-44-5	4-Methylphenol	360	U
91-20-3	Naphthalene	330	U
88-74-4	2-Nitroaniline	1600	U
99-09-2	3-Nitroaniline	1600	U
100-01-6	4-Nitroaniline	1600	U
98-95-3	Nitrobenzene	330	U
88-75-5	2-Nitrophenol	330	U
100-02-7	4-Nitrophenol	1600	U
86-30-6	N-nitrosodiphenylamine	330	U
621-64-7	N-Nitroso-Di-n-propylamine	330	U
87-86-5	Pentachlorophenol * 70000	~~59000~~	E
85-01-8	Phenanthrene	~~230~~ 1650	U
108-95-2	Phenol	~~360~~ 1650	U
129-00-0	Pyrene	570 J	
120-82-1	1,2,4-Trichlorobenzene	~~320~~ 1650	U
95-95-4	2,4,5-Trichlorophenol	~~800~~ 4000	U

* penta Cl phenol result from 20x dilution

FORM I - GC/MS BNA

01/23/02

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

Client No.

SS-6

Name: STL Buffalo Contract: _____

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

Matrix: (soil/water) SOIL Lab Sample ID: A1B63006

Sample wt/vol: 30.91 (g/mL) G Lab File ID: Y49860.RR

Level: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

% Moisture: 10.9 decanted: (Y/N) N Date Extracted: 11/28/2001

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/04/2001

Injection Volume: 1.00 (uL) Dilution Factor: 5.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
88-06-2	2,4,6-Trichlorophenol	~~540~~ 2700	U

Qual 07/23/02

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
TENTATIVELY IDENTIFIED COMPOUNDS

000069

Client No.

SS-6

Name: STL Buffalo Contract: _____

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

rix: (soil/water) SOIL Lab Sample ID: A1B63006

ple wt/vol: 30.91 (g/mL) G Lab File ID: Y49860.RR

el: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

oisture: 10.9 decanted: (Y/N) N Date Extracted: 11/28/2001

centrated Extract Volume: 1000 (uL) Date Analyzed: 12/04/2001

ection Volume: 1.00 (uL) Dilution Factor: 5.00

Cleanup: (Y/N) N pH: _____

ber TICs found: 20 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q
1.	UNKNOWN HYDROCARBON	13.23	2200	J
2.	UNKNOWN ALKANE	13.53	7400	J
3.	UNKNOWN ALKANE	14.23	3400	J
4.	UNKNOWN HYDROCARBON	14.38	3000	J
5.	UNKNOWN ALKANE	14.48	2200	J
6.	UNKNOWN ALKANE	15.46	4300	J
7.	UNKNOWN	16.06	2200	J
8.	UNKNOWN ALKANE	16.36	3700	J
9.	UNKNOWN	16.58	2500	J
10.	UNKNOWN ALKANE	17.73	3000	J
11.	UNKNOWN ALKANE	18.85	5400	J
12.	UNKNOWN ALKANE	19.48	6300	J
13.	UNKNOWN ALKANE	20.01	3100	J
14.	UNKNOWN ALKANE	20.68	5600	J
15.	UNKNOWN ALKANE	20.81	7300	J
16.	UNKNOWN ALKANE	21.75	2400	J
17.	UNKNOWN ALKANE	21.83	5000	J
18.	UNKNOWN ALKANE	22.90	4200	J
19.	UNKNOWN ALKANE	24.91	7900	J
20.	UNKNOWN ALKANE	25.86	3500	J

I T CORP

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

Client No.

SS-7

Name: STL Buffalo Contract: _____

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

Matrix: (soil/water) SOIL Lab Sample ID: A1B63007

Sample wt/vol: 30.26 (g/mL) G Lab File ID: Y49861.RR

Level: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

% Moisture: 23.1 decanted: (Y/N) N Date Extracted: 11/28/2001

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/04/2001

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
83-32-9	Acenaphthene	330	U
208-96-8	Acenaphthylene	330	U
120-12-7	Anthracene	330	U
56-55-3	Benzo(a)anthracene	330	U
205-99-2	Benzo(b)fluoranthene	330	U
207-08-9	Benzo(k)fluoranthene	330	U J
191-24-2	Benzo(ghi)perylene	330	U
50-32-8	Benzo(a)pyrene	330	U
65-85-0	Benzoic acid	1600	U
100-51-6	Benzyl alcohol	330	U
111-91-1	Bis(2-chloroethoxy) methane	330	U
111-44-4	Bis(2-chloroethyl) ether	330	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	330	U
117-81-7	Bis(2-ethylhexyl) phthalate	330	U
101-55-3	4-Bromophenyl phenyl ether	330	U
85-68-7	Butyl benzyl phthalate	330	U
106-47-8	4-Chloroaniline	330	U
59-50-7	4-Chloro-3-methylphenol	330	U
91-58-7	2-Chloronaphthalene	330	U
95-57-8	2-Chlorophenol	330	U
7005-72-3	4-Chlorophenyl phenyl ether	330	U
218-01-9	Chrysene	330	U
53-70-3	Dibenzo(a,h)anthracene	330	U
132-64-9	Dibenzofuran	330	U
84-74-2	Di-n-butyl phthalate	330	U
95-50-1	1,2-Dichlorobenzene	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
91-94-1	3,3'-Dichlorobenzidine	660	U
120-83-2	2,4-Dichlorophenol	330	U
84-66-2	Diethyl phthalate	330	U
105-67-9	2,4-Dimethylphenol	330	U

cnt 07/22/02

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

Client No.: SS-7

Lab Name: STL Buffalo Contract: _____

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

Matrix: (soil/water) SOIL Lab Sample ID: A1B63007

Sample wt/vol: 30.26 (g/mL) G Lab File ID: Y49861.RR

Level: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

% Moisture: 23.1 decanted: (Y/N) N Date Extracted: 11/28/2001

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/04/2001

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
131-11-3	Dimethyl phthalate	330	U
534-52-1	4,6-Dinitro-2-methylphenol	1600	U
51-28-5	2,4-Dinitrophenol	1600	UJ
121-14-2	2,4-Dinitrotoluene	330	U
606-20-2	2,6-Dinitrotoluene	330	U
117-84-0	Di-n-octyl phthalate	330	U
206-44-0	Fluoranthene	330	U
86-73-7	Fluorene	330	U
118-74-1	Hexachlorobenzene	330	U
87-68-3	Hexachlorobutadiene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
67-72-1	Hexachloroethane	330	U
193-39-5	Indeno(1,2,3-cd)pyrene	330	U
78-59-1	Isophorone	330	UJ
91-57-6	2-Methylnaphthalene	330	U
95-48-7	2-Methylphenol	330	U
106-44-5	4-Methylphenol	330	U
91-20-3	Naphthalene	330	U
88-74-4	2-Nitroaniline	1600	U
99-09-2	3-Nitroaniline	1600	U
100-01-6	4-Nitroaniline	1600	U
98-95-3	Nitrobenzene	330	U
88-75-5	2-Nitrophenol	330	U
100-02-7	4-Nitrophenol	1600	U
86-30-6	N-nitrosodiphenylamine	330	U
621-64-7	N-Nitroso-Di-n-propylamine	330	U
87-86-5	Pentachlorophenol	96	J
85-01-8	Phenanthrene	330	U
108-95-2	Phenol	330	U
129-00-0	Pyrene	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
95-95-4	2,4,5-Trichlorophenol	800	U

Out 07/12/02

I T CORP
METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

Client No.: SS-7

b Name: STL Buffalo Contract: _____

b Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) SOIL Lab Sample ID: A1B63007

mple wt/vol: 30.26 (g/mL) G Lab File ID: Y49861.RR

vel: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

Moisture: 23.1 decanted: (Y/N) N Date Extracted: 11/28/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/04/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
88-06-2	2,4,6-Trichlorophenol	330	U

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
TENTATIVELY IDENTIFIED COMPOUNDS

000077

Client No.

SS-7

) Name: STL Buffalo Contract: _____

) Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

:rix: (soil/water) SOIL Lab Sample ID: A1B63007

)ple wt/vol: 30.26 (g/mL) G Lab File ID: Y49861.RR

vel: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

/oisture: 23.1 decanted: (Y/N) N Date Extracted: 11/28/2001

)centrated Extract Volume: 1000 (uL) Date Analyzed: 12/04/2001

)ection Volume: 1.00 (uL) Dilution Factor: 1.00

Cleanup: (Y/N) N pH: _____

)ber TICs found: 6 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q
1. ~~79-34-5~~	~~1,1,2,2-TETRACHLOROETHANE~~	~~6.98~~	~~280~~	~~JN~~ R
2.	UNKNOWN HYDROCARBON	27.63	600	J
3.	UNKNOWN HYDROCARBON	29.33	770	J
4.	UNKNOWN HYDROCARBON	30.45	330	J
5.	UNKNOWN ALKANE	30.88	260	J
6.	UNKNOWN ALKANE	32.36	220	J

12/21/2

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

000078

Client No.

SS-8

b Name: STL Buffalo Contract: _____

b Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) SOIL Lab Sample ID: A1B63008

ple wt/vol: 30.62 (g/mL) G Lab File ID: Y49862.RR

vel: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

Moisture: 7.0 decanted: (Y/N) N Date Extracted: 11/28/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/04/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
83-32-9	Acenaphthene	330	U
208-96-8	Acenaphthylene	330	U
120-12-7	Anthracene	330	U
56-55-3	Benzo(a)anthracene	330	U
205-99-2	Benzo(b)fluoranthene	330	U
207-08-9	Benzo(k)fluoranthene	330	UJ
191-24-2	Benzo(ghi)perylene	330	U
50-32-8	Benzo(a)pyrene	330	U
65-85-0	Benzoic acid	1600	U
100-51-6	Benzyl alcohol	330	U
111-91-1	Bis(2-chloroethoxy) methane	330	U
111-44-4	Bis(2-chloroethyl) ether	330	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	330	U
117-81-7	Bis(2-ethylhexyl) phthalate	330	U
101-55-3	4-Bromophenyl phenyl ether	330	U
85-68-7	Butyl benzyl phthalate	330	U
106-47-8	4-Chloroaniline	330	U
59-50-7	4-Chloro-3-methylphenol	330	U
91-58-7	2-Chloronaphthalene	330	U
95-57-8	2-Chlorophenol	330	U
7005-72-3	4-Chlorophenyl phenyl ether	330	U
218-01-9	Chrysene	330	U
53-70-3	Dibenzo(a,h)anthracene	330	U
132-64-9	Dibenzofuran	330	U
84-74-2	Di-n-butyl phthalate	44	J
95-50-1	1,2-Dichlorobenzene	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
91-94-1	3,3'-Dichlorobenzidine	660	U
120-83-2	2,4-Dichlorophenol	330	U
84-66-2	Diethyl phthalate	330	U
105-67-9	2,4-Dimethylphenol	330	U

Ok 07/23/02

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

Client No.: SS-8

b Name: STL Buffalo Contract: _____

b Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) SOIL Lab Sample ID: A1B63008

mple wt/vol: 30.62 (g/mL) G Lab File ID: Y49862.RR

vel: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

Moisture: 7.0 decanted: (Y/N) N Date Extracted: 11/28/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/04/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
131-11-3	Dimethyl phthalate	330	U
534-52-1	4,6-Dinitro-2-methylphenol	1600	U
51-28-5	2,4-Dinitrophenol	1600	UJ
121-14-2	2,4-Dinitrotoluene	330	U
606-20-2	2,6-Dinitrotoluene	330	U
117-84-0	Di-n-octyl phthalate	330	U
206-44-0	Fluoranthene	330	U
86-73-7	Fluorene	330	U
118-74-1	Hexachlorobenzene	330	U
87-68-3	Hexachlorobutadiene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
67-72-1	Hexachloroethane	330	U
193-39-5	Indeno(1,2,3-cd)pyrene	330	U
78-59-1	Isophorone	330	UJ
91-57-6	2-Methylnaphthalene	330	U
95-48-7	2-Methylphenol	330	U
106-44-5	4-Methylphenol	330	U
91-20-3	Naphthalene	330	U
88-74-4	2-Nitroaniline	1600	U
99-09-2	3-Nitroaniline	1600	U
100-01-6	4-Nitroaniline	1600	U
98-95-3	Nitrobenzene	330	U
88-75-5	2-Nitrophenol	330	U
100-02-7	4-Nitrophenol	1600	U
86-30-6	N-nitrosodiphenylamine	330	U
621-64-7	N-Nitroso-Di-n-propylamine	330	U
87-86-5	Pentachlorophenol	1000	J
85-01-8	Phenanthrene	330	U
108-95-2	Phenol	330	U
129-00-0	Pyrene	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
95-95-4	2,4,5-Trichlorophenol	800	U

Qual 07/23/02

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

Client No.

SS-8

Name: STL Buffalo Contract: _____

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

rix: (soil/water) SOIL Lab Sample ID: A1B63008

ple wt/vol: 30.62 (g/mL) G Lab File ID: Y49862.RR

el: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

oisture: 7.0 decanted: (Y/N) N Date Extracted: 11/28/2001

centrated Extract Volume: 1000 (uL) Date Analyzed: 12/04/2001

ection Volume: 1.00 (uL) Dilution Factor: 1.00

Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
88-06-2	2,4,6-Trichlorophenol	330	U

1 1 CORP

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
TENTATIVELY IDENTIFIED COMPOUNDS

000081

Client No.

SS-8

b Name: STL Buffalo Contract: _____

b Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) SOIL Lab Sample ID: A1B63008

mple wt/vol: 30.62 (g/mL) G Lab File ID: Y49862.RR

vel: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

Moisture: 7.0 decanted: (Y/N) N Date Extracted: 11/28/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/04/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

Cleanup: (Y/N) N pH: _____

mber TICs found: 13 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q
1. ~~79-34-5~~	~~1,1,2,2-TETRACHLOROETHANE~~	~~6.98~~	~~340~~	~~JN~~ R
2.	UNKNOWN ALKANE	18.18	390	J
3.	UNKNOWN ALKANE	18.80	370	J
4.	UNKNOWN ALKANE	19.43	480	J
5.	UNKNOWN ALKANE	19.51	690	J
6.	UNKNOWN ALKANE	19.96	150	J
7.	UNKNOWN ALKANE	20.63	520	J
8.	UNKNOWN ALKANE	21.70	160	J
9.	UNKNOWN ALKANE	21.76	460	J
10.	UNKNOWN ALKANE	22.85	360	J
11.	UNKNOWN ALKANE	23.90	210	J
12.	UNKNOWN ALKANE	24.31	240	J
13.	UNKNOWN ALKANE	24.88	170	J

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I T CORP

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

Client No.

SS-9

Name: STL Buffalo Contract: _____

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

Matrix: (soil/water) SOIL Lab Sample ID: A1B63009

Sample wt/vol: 30.46 (g/mL) G Lab File ID: Y49863.RR

Level: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

% Moisture: 12.0 decanted: (Y/N) N Date Extracted: 11/28/2001

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/04/2001

Injection Volume: 1.00 (uL) Dilution Factor: 5.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
83-32-9	Acenaphthene	330	U
208-96-8	Acenaphthylene	330	U
120-12-7	Anthracene	330	U
56-55-3	Benzo(a)anthracene	330	U
205-99-2	Benzo(b)fluoranthene	330	U
207-08-9	Benzo(k)fluoranthene	330	U J
191-24-2	Benzo(ghi)perylene	330	U
50-32-8	Benzo(a)pyrene	330	U
65-85-0	Benzoic acid	1600 8000	U
100-51-6	Benzyl alcohol	330 1650	U
111-91-1	Bis(2-chloroethoxy) methane	330	U
111-44-4	Bis(2-chloroethyl) ether	330	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	330	U
117-81-7	Bis(2-ethylhexyl) phthalate	330	U
101-55-3	4-Bromophenyl phenyl ether	330	U
85-68-7	Butyl benzyl phthalate	330	U
106-47-8	4-Chloroaniline	330	U
59-50-7	4-Chloro-3-methylphenol	330	U
91-58-7	2-Chloronaphthalene	330	U
95-57-8	2-Chlorophenol	330	U
7005-72-3	4-Chlorophenyl phenyl ether	330	U
218-01-9	Chrysene	330	U
53-70-3	Dibenzo(a,h)anthracene	330	U
132-64-9	Dibenzofuran	330	U
84-74-2	Di-n-butyl phthalate	330	U
95-50-1	1,2-Dichlorobenzene	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
91-94-1	3,3'-Dichlorobenzidine	660 3300	U
120-83-2	2,4-Dichlorophenol	330 1650	U
84-66-2	Diethyl phthalate	330	U
105-67-9	2,4-Dimethylphenol	330	U

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I T CORP
METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

Client No.: SS-9

Lab Name: STL Buffalo Contract: _____

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

Matrix: (soil/water) SOIL Lab Sample ID: A1B63009

Sample wt/vol: 30.46 (g/mL) G Lab File ID: Y49863.RR

Level: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

% Moisture: 12.0 decanted: (Y/N) N Date Extracted: 11/28/2001

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/04/2001

Injection Volume: 1.00 (uL) Dilution Factor: 5.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
131-11-3	Dimethyl phthalate	330 1650	U
534-52-1	4,6-Dinitro-2-methylphenol	1600 8000 U	U
51-28-5	2,4-Dinitrophenol	1600	UJ
121-14-2	2,4-Dinitrotoluene	330	U
606-20-2	2,6-Dinitrotoluene	330	U
117-84-0	Di-n-octyl phthalate	330	U
206-44-0	Fluoranthene	330	U
86-73-7	Fluorene	330 1650	U
118-74-1	Hexachlorobenzene	330 U	U
87-68-3	Hexachlorobutadiene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
67-72-1	Hexachloroethane	330	U
193-39-5	Indeno(1,2,3-cd)pyrene	330	U
78-59-1	Isophorone	330	UJ
91-57-6	2-Methylnaphthalene	330	U
95-48-7	2-Methylphenol	330	U
106-44-5	4-Methylphenol	330	U
91-20-3	Naphthalene	330	U
88-74-4	2-Nitroaniline	1600	U
99-09-2	3-Nitroaniline	1600 8000 U	U
100-01-6	4-Nitroaniline	1600	U
98-95-3	Nitrobenzene	330 1650 U	U
88-75-5	2-Nitrophenol	330	U
100-02-7	4-Nitrophenol	1600 8000	U
86-30-6	N-nitrosodiphenylamine	330 1650 U	U
621-64-7	N-Nitroso-Di-n-propylamine	330	U
87-86-5	Pentachlorophenol	7800	
85-01-8	Phenanthrene	330	U
108-95-2	Phenol	330 1650 U	U
129-00-0	Pyrene	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
95-95-4	2,4,5-Trichlorophenol	800 4000	U

CWF 01/25/02

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

Client No.

SS-9

ab Name: STL Buffalo Contract: _____

b Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

atrix: (soil/water) SOIL Lab Sample ID: A1B63009

mple wt/vol: 30.46 (g/mL) G Lab File ID: Y49863.RR

vel: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

Moisture: 12.0 decanted: (Y/N) N Date Extracted: 11/28/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/04/2001

jection Volume: 1.00 (uL) Dilution Factor: 5.00

C Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
88-06-2	2,4,6-Trichlorophenol	~~560~~ 2800	U

Qwt 07/25/02

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
TENTATIVELY IDENTIFIED COMPOUNDS

Client No.

SS-9

b Name: STL Buffalo Contract: _____

b Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) SOIL Lab Sample ID: A1B63009

mple wt/vol: 30.46 (g/mL) G Lab File ID: Y49863.RR

vel: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

Moisture: 12.0 decanted: (Y/N) N Date Extracted: 11/28/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/04/2001

jection Volume: 1.00 (uL) Dilution Factor: 5.00

C Cleanup: (Y/N) N pH: _____

mber TICs found: 5 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q
1.	UNKNOWN ALKANE	19.51	1200	J
2.	UNKNOWN ALKANE	20.63	880	J
3.	UNKNOWN ALKANE	21.76	1000	J
4.	UNKNOWN ALKANE	22.85	1000	J
5.	UNKNOWN ALKANE	23.90	760	J

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

Client No.: SS-700

b Name: STL Buffalo Contract: _____

b Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) SOIL Lab Sample ID: A1B63010

mple wt/vol: 30.46 (g/mL) G Lab File ID: Y49864.RR

vel: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

Moisture: 20.3 decanted: (Y/N) N Date Extracted: 11/28/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/04/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
83-32-9	Acenaphthene	330	U
208-96-8	Acenaphthylene	330	U
120-12-7	Anthracene	330	U
56-55-3	Benzo(a)anthracene	330	U
205-99-2	Benzo(b)fluoranthene	330	U
207-08-9	Benzo(k)fluoranthene	330	U J
191-24-2	Benzo(ghi)perylene	330	U
50-32-8	Benzo(a)pyrene	330	U
65-85-0	Benzoic acid	1600	U
100-51-6	Benzyl alcohol	330	U
111-91-1	Bis(2-chloroethoxy) methane	330	U
111-44-4	Bis(2-chloroethyl) ether	330	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	330	U
117-81-7	Bis(2-ethylhexyl) phthalate	330	U
101-55-3	4-Bromophenyl phenyl ether	330	U
85-68-7	Butyl benzyl phthalate	330	U
106-47-8	4-Chloroaniline	330	U
59-50-7	4-Chloro-3-methylphenol	330	U
91-58-7	2-Chloronaphthalene	330	U
95-57-8	2-Chlorophenol	330	U
7005-72-3	4-Chlorophenyl phenyl ether	330	U
218-01-9	Chrysene	330	U
53-70-3	Dibenzo(a,h)anthracene	330	U
132-64-9	Dibenzofuran	330	U
84-74-2	Di-n-butyl phthalate	330	U
95-50-1	1,2-Dichlorobenzene	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
91-94-1	3,3'-Dichlorobenzidine	660	U
120-83-2	2,4-Dichlorophenol	330	U
84-66-2	Diethyl phthalate	330	U
105-67-9	2,4-Dimethylphenol	330	U

Chk 07/23/02

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

000087
Client No.

SS-700

b Name: STL Buffalo Contract: _____

b Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) SOIL Lab Sample ID: A1B63010

mple wt/vol: 30.46 (g/mL) G Lab File ID: Y49864.RR

vel: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

Moisture: 20.3 decanted: (Y/N) N Date Extracted: 11/28/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/04/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
131-11-3	Dimethyl phthalate	330	U
534-52-1	4,6-Dinitro-2-methylphenol	1600	U
51-28-5	2,4-Dinitrophenol	1600	U J
121-14-2	2,4-Dinitrotoluene	330	U
606-20-2	2,6-Dinitrotoluene	330	U
117-84-0	Di-n-octyl phthalate	330	U
206-44-0	Fluoranthene	330	U
86-73-7	Fluorene	330	U
118-74-1	Hexachlorobenzene	330	U
87-68-3	Hexachlorobutadiene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
67-72-1	Hexachloroethane	330	U
193-39-5	Indeno(1,2,3-cd)pyrene	330	U
78-59-1	Isophorone	330	U J
91-57-6	2-Methylnaphthalene	330	U
95-48-7	2-Methylphenol	330	U
106-44-5	4-Methylphenol	330	U
91-20-3	Naphthalene	330	U
88-74-4	2-Nitroaniline	1600	U
99-09-2	3-Nitroaniline	1600	U
100-01-6	4-Nitroaniline	1600	U
98-95-3	Nitrobenzene	330	U
88-75-5	2-Nitrophenol	330	U
100-02-7	4-Nitrophenol	1600	U
86-30-6	N-nitrosodiphenylamine	330	U
621-64-7	N-Nitroso-Di-n-propylamine	330	U
87-86-5	Pentachlorophenol	350	J
85-01-8	Phenanthrene	330	U
108-95-2	Phenol	330	U
129-00-0	Pyrene	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
95-95-4	2,4,5-Trichlorophenol	800	U

CWF 07/23/02

I T CORP

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
ANALYSIS DATA SHEET

000088

Client No.

SS-700

b Name: STL Buffalo Contract: _____

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

trix: (soil/water) SOIL Lab Sample ID: A1B63010

mple wt/vol: 30.46 (g/mL) G Lab File ID: Y49864.RR

vel: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

Moisture: 20.3 decanted: (Y/N) N Date Extracted: 11/28/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/04/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
88-06-2	2,4,6-Trichlorophenol	330	U

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS
TENTATIVELY IDENTIFIED COMPOUNDS

Client No.

SS-700

b Name: STL Buffalo Contract: _____

) Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

trix: (soil/water) SOIL Lab Sample ID: A1B63010

ple wt/vol: 30.46 (g/mL) G Lab File ID: Y49864.RR

vel: (low/med) LOW Date Samp/Recv: 11/16/2001 11/21/2001

Moisture: 20.3 decanted: (Y/N) N Date Extracted: 11/28/2001

ncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/04/2001

jection Volume: 1.00 (uL) Dilution Factor: 1.00

Cleanup: (Y/N) N pH: _____

ber TICs found: 9 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q
1. ~~79-34-5~~	~~1,1,2,2 TETRACHLOROETHANE~~	~~6.98~~	~~270~~	~~BN~~ R
2.	UNKNOWN HYDROCARBON	27.63	620	J
3.	UNKNOWN HYDROCARBON	29.33	800	J
4.	UNKNOWN HYDROCARBON	30.45	1000	J
5.	UNKNOWN ALKANE	30.90	600	J
6.	UNKNOWN HYDROCARBON	30.95	710	J
7.	UNKNOWN HYDROCARBON	31.98	400	J
8.	UNKNOWN ALKANE	32.36	590	J
9.	UNKNOWN HYDROCARBON	32.46	300	J

Cut 12/05/01

IT CORPORATION

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

SS-1

ntract: NY01-181

b Code: STL BFLO Case No.: SAS No.: SDG NO.: A01-B630

trix (soil/water): SOIL Lab Sample ID: AD123831

vel (low/med): LOW Date Received: 11/21/01

olids: 84

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	11800		E J	P
7440-36-0	Antimony	1.8	B		P
7440-38-2	Arsenic	8.5			P
7440-39-3	Barium	67.9		E J	P
7440-41-7	Beryllium	0.52	B		P
7440-43-9	Cadmium	0.18	B		P
7440-70-2	Calcium	1570		E J	P
7440-47-3	Chromium	15.1		E J	P
7440-48-4	Cobalt	10.9		E J	P
7440-50-8	Copper	23.1		E J	P
7439-89-6	Iron	25300		E J	P
7439-92-1	Lead	20.8		E	P
7439-95-4	Magnesium	3510		E J	P
7439-96-5	Manganese	805		E J	P
7440-02-0	Nickel	22.8		E J	P
7440-09-7	Potassium	860		E J	P
7782-49-2	Selenium	1.6			P
7439-97-6	Mercury	0.064			CV
7440-22-4	Silver	0.41	B		P
7440-23-5	Sodium	50.4	B		P
7440-28-0	Thallium	0.61	U	J	P
7440-62-2	Vanadium	15.0		E J	P
7440-66-6	Zinc	57.1		E J	P

CWT 1/23/02

Color Before: BROWN Clarity Before: Texture: SILT

Color After: YELLOW Clarity After: CLOUDY Artifacts:

Comments:

TT CORPORATION

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

SS-2

ntract: NY01-181

ab Code: STL BFLO Case No.: SAS No.: SDG NO.: A01-B630

trix (soil/water): SOIL Lab Sample ID: AD123832

vel (low/med): LOW Date Received: 11/21/01

Solids: 86

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	12300		E J	P
7440-36-0	Antimony	1.1	B		P
7440-38-2	Arsenic	7.5			P
7440-39-3	Barium	62.2		E J	P
7440-41-7	Beryllium	0.41	B		P
7440-43-9	Cadmium	0.03	U		P
7440-70-2	Calcium	636		E J	P
7440-47-3	Chromium	14.6		E J	P
7440-48-4	Cobalt	11.2		E J	P
7440-50-8	Copper	18.4		E J	P
7439-89-6	Iron	25800		E J	P
7439-92-1	Lead	17.7		E	P
7439-95-4	Magnesium	3240		E J	P
7439-96-5	Manganese	947		E J	P
7440-02-0	Nickel	22.2		E J	P
7440-09-7	Potassium	718		E J	P
7782-49-2	Selenium	1.0			P
7439-97-6	Mercury	0.028	B		CV
7440-22-4	Silver	0.17	B		P
7440-23-5	Sodium	40.0	B		P
7440-28-0	Thallium	0.59	U	J	P
7440-62-2	Vanadium	15.9		E J	P
7440-66-6	Zinc	53.8		E J	P

COT 1/23/02

Color Before: BROWN Clarity Before: Texture: SILT

Color After: YELLOW Clarity After: CLOUDY Artifacts:

Comments:

IT CORPORATION

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

SS-3

Contract: NY01-181

Lab Code: STL BFLO Case No.: SAS No.: SDG NO.: A01-B630

Matrix (soil/water): SOIL Lab Sample ID: AD123833

Level (low/med): LOW Date Received: 11/21/01

% Solids: 84

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	11000		E J	P
7440-36-0	Antimony	1.4	B		P
7440-38-2	Arsenic	9.0			P
7440-39-3	Barium	58.0		E J	P
7440-41-7	Beryllium	0.41	B		P
7440-43-9	Cadmium	0.04	U		P
7440-70-2	Calcium	2680		E J	P
7440-47-3	Chromium	14.2		E J	P
7440-48-4	Cobalt	10.6		E J	P
7440-50-8	Copper	36.7		E J	P
7439-89-6	Iron	24100		E J	P
7439-92-1	Lead	20.6		E	P
7439-95-4	Magnesium	3620		E J	P
7439-96-5	Manganese	558		E J	P
7440-02-0	Nickel	23.9		E J	P
7440-09-7	Potassium	820		E J	P
7782-49-2	Selenium	1.1			P
7439-97-6	Mercury	0.021	B		CV
7440-22-4	Silver	0.11	U		P
7440-23-5	Sodium	73.3	B		P
7440-28-0	Thallium	0.63	U	J	P
7440-62-2	Vanadium	15.3		E J	P
7440-66-6	Zinc	56.6		E J	P

Cnf 07/23/02

Color Before: BROWN Clarity Before: Texture: SILT

Color After: YELLOW Clarity After: CLOUDY Artifacts:

Comments:

TT CORPORATION

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

SS-4

ntract: NY01-181

b Code: STL BFLO Case No.: SAS No.: SDG NO.: A01-B630

trix (soil/water): SOIL Lab Sample ID: AD123834

vel (low/med): LOW Date Received: 11/21/01

Solids: 93

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	12400		E J	P
7440-36-0	Antimony	0.94	B		P
7440-38-2	Arsenic	7.5			P
7440-39-3	Barium	67.6		E J	P
7440-41-7	Beryllium	0.47	B		P
7440-43-9	Cadmium	0.10	B		P
7440-70-2	Calcium	1070		E J	P
7440-47-3	Chromium	15.9		E J	P
7440-48-4	Cobalt	12.6		E J	P
7440-50-8	Copper	119		E J	P
7439-89-6	Iron	28800		E J	P
7439-92-1	Lead	22.2		E	P
7439-95-4	Magnesium	4230		E J	P
7439-96-5	Manganese	807		E J	P
7440-02-0	Nickel	29.0		E J	P
7440-09-7	Potassium	670		E J	P
7782-49-2	Selenium	1.1			P
7439-97-6	Mercury	0.008	B		CV
7440-22-4	Silver	0.10	U		P
7440-23-5	Sodium	44.9	B		P
7440-28-0	Thallium	0.55	U J		P
7440-62-2	Vanadium	14.0		E J	P
7440-66-6	Zinc	61.9		E J	P

CLW 07/23/02

Color Before: BROWN Clarity Before: Texture: SILT

Color After: YELLOW Clarity After: CLOUDY Artifacts:

Comments:

TT CORPORATION

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

SS-5

Contract: NY01-181

Lab Code: STL BFLO Case No.: SAS No.: SDG NO.: A01-B630

Matrix (soil/water): SOIL Lab Sample ID: AD123835

Level (low/med): LOW Date Received: 11/21/01

% Solids: 94

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9960		E J	P
7440-36-0	Antimony	1.0	B		P
7440-38-2	Arsenic	5.0			P
7440-39-3	Barium	52.8		E J	P
7440-41-7	Beryllium	0.36	B		P
7440-43-9	Cadmium	0.03	U		P
7440-70-2	Calcium	755		E J	P
7440-47-3	Chromium	13.7		E J	P
7440-48-4	Cobalt	8.2		E J	P
7440-50-8	Copper	80.4		E J	P
7439-89-6	Iron	23400		E J	P
7439-92-1	Lead	41.9		E J	P
7439-95-4	Magnesium	3440		E J	P
7439-96-5	Manganese	253		E J	P
7440-02-0	Nickel	21.3		E J	P
7440-09-7	Potassium	775		E J	P
7782-49-2	Selenium	1.1			P
7439-97-6	Mercury	0.016	B		CV
7440-22-4	Silver	0.10	U		P
7440-23-5	Sodium	29.6	U		P
7440-28-0	Thallium	0.57	U	J	P
7440-62-2	Vanadium	11.9		E J	P
7440-66-6	Zinc	49.4		E J	P

DWT 07/23/02

Color Before: BROWN Clarity Before: Texture: SILT

Color After: YELLOW Clarity After: CLOUDY Artifacts:

Comments:

TT CORPORATION

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

SS-6

ntract: NY01-181

ab Code: STL BFLO Case No.: SAS No.: SDG NO.: A01-B630

trix (soil/water): SOIL Lab Sample ID: AD123836

evel (low/med): LOW Date Received: 11/21/01

Solids: 89

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	13700		E J	P
7440-36-0	Antimony	1.3	B		P
7440-38-2	Arsenic	10.3			P
7440-39-3	Barium	85.0		E J	P
7440-41-7	Beryllium	0.54	B		P
7440-43-9	Cadmium	0.04	U		P
7440-70-2	Calcium	1190		E J	P
7440-47-3	Chromium	18.4		E J	P
7440-48-4	Cobalt	13.7		E J	P
7440-50-8	Copper	79.2		E J	P
7439-89-6	Iron	31800		E J	P
7439-92-1	Lead	77.2		E J	P
7439-95-4	Magnesium	4660		E J	P
7439-96-5	Manganese	960		E J	P
7440-02-0	Nickel	30.2		E J	P
7440-09-7	Potassium	1060		E J	P
7782-49-2	Selenium	1.4			P
7439-97-6	Mercury	0.011	B		CV
7440-22-4	Silver	0.11	U		P
7440-23-5	Sodium	45.4	B		P
7440-28-0	Thallium	0.61	U	J	P
7440-62-2	Vanadium	16.7		E J	P
7440-66-6	Zinc	69.5		E J	P

OUT 07/22/02

Color Before: BROWN Clarity Before: Texture: SILT

Color After: YELLOW Clarity After: CLOUDY Artifacts:

Comments:

TT CORPORATION

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.: SS-7

Contract: NY01-181

Lab Code: STL BFLO Case No.: SAS No.: SDG NO.: A01-B630

Matrix (soil/water): SOIL Lab Sample ID: AD123837

Level (low/med): LOW Date Received: 11/21/01

% Solids: 77

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	14100		E J	P
7440-36-0	Antimony	0.97	B		P
7440-38-2	Arsenic	7.7			P
7440-39-3	Barium	67.2		E J	P
7440-41-7	Beryllium	0.49	B		P
7440-43-9	Cadmium	0.26	B		P
7440-70-2	Calcium	544	B	E J	P
7440-47-3	Chromium	16.4		E J	P
7440-48-4	Cobalt	13.1		E J	P
7440-50-8	Copper	57.7		E J	P
7439-89-6	Iron	26500		E J	P
7439-92-1	Lead	50.8		E J	P
7439-95-4	Magnesium	3150		E J	P
7439-96-5	Manganese	740		E J	P
7440-02-0	Nickel	21.5		E J	P
7440-09-7	Potassium	718		E J	P
7782-49-2	Selenium	1.6			P
7439-97-6	Mercury	0.037	B		CV
7440-22-4	Silver	0.12	U		P
7440-23-5	Sodium	37.0	U		P
7440-28-0	Thallium	0.70	U	J	P
7440-62-2	Vanadium	18.4		E J	P
7440-66-6	Zinc	64.0		E J	P

DWT 01/23/02

Color Before: BROWN Clarity Before: Texture: SILT

Color After: YELLOW Clarity After: CLOUDY Artifacts:

Comments:

IT CORPORATION

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

SS-700

Contract: NY01-181

Lab Code: STL BFLO Case No.: SAS No.: SDG NO.: A01-B630

Matrix (soil/water): SOIL Lab Sample ID: AD123840

Level (low/med): LOW Date Received: 11/21/01

% Solids: 80

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	14300		E J	P
7440-36-0	Antimony	0.95	B		P
7440-38-2	Arsenic	6.0			P
7440-39-3	Barium	57.9		E J	P
7440-41-7	Beryllium	0.49	B		P
7440-43-9	Cadmium	0.10	B		P
7440-70-2	Calcium	733		E J	P
7440-47-3	Chromium	17.6		E J	P
7440-48-4	Cobalt	11.9		E J	P
7440-50-8	Copper	38.1		E J	P
7439-89-6	Iron	28600		E J	P
7439-92-1	Lead	31.6		E J	P
7439-95-4	Magnesium	4030		E J	P
7439-96-5	Manganese	610		E J	P
7440-02-0	Nickel	25.8		E J	P
7440-09-7	Potassium	736		E J	P
7782-49-2	Selenium	1.2			P
7439-97-6	Mercury	0.047	B		CV
7440-22-4	Silver	0.11	U		P
7440-23-5	Sodium	40.2	B		P
7440-28-0	Thallium	0.65	U	J	P
7440-62-2	Vanadium	16.7		E J	P
7440-66-6	Zinc	75.9		E J	P

CWT 07/23/02

Color Before: BROWN Clarity Before: Texture: SILT

Color After: YELLOW Clarity After: CLOUDY Artifacts:

Comments:

TT CORPORATION

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

SS-8

ontract: NY01-181

ab Code: STL BFLO Case No.: SAS No.: SDG NO.: A01-B630

atrix (soil/water): SOIL Lab Sample ID: AD123838

evel (low/med): LOW Date Received: 11/21/01

Solids: 93

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	14400		E J	P
7440-36-0	Antimony	1.1	B		P
7440-38-2	Arsenic	7.4			P
7440-39-3	Barium	79.5		E J	P
7440-41-7	Beryllium	0.53	B		P
7440-43-9	Cadmium	0.03	U		P
7440-70-2	Calcium	916		E J	P
7440-47-3	Chromium	19.4		E J	P
7440-48-4	Cobalt	12.9		E J	P
7440-50-8	Copper	50.4		E J	P
7439-89-6	Iron	33600		E J	P
7439-92-1	Lead	38.2		E J	P
7439-95-4	Magnesium	4980		E J	P
7439-96-5	Manganese	692		E J	P
7440-02-0	Nickel	32.2		E J	P
7440-09-7	Potassium	906		E J	P
7782-49-2	Selenium	1.6			P
7439-97-6	Mercury	0.012	B		CV
7440-22-4	Silver	0.10	U		P
7440-23-5	Sodium	61.9	B		P
7440-28-0	Thallium	0.58	U	J	P
7440-62-2	Vanadium	17.2		E J	P
7440-66-6	Zinc	72.3		E J	P

CWT 01/23/02

Color Before: BROWN Clarity Before: Texture: SILT

Color After: YELLOW Clarity After: CLOUDY Artifacts:

Comments:

TT CORPORATION

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

SS-9

ntract: NY01-181

b Code: STL BFLO Case No.: SAS No.: SDG NO.: A01-B630

trix (soil/water): SOIL Lab Sample ID: AD123839

vel (low/med): LOW Date Received: 11/21/01

Solids: 88

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	12500		E J	P
7440-36-0	Antimony	1.5	B		P
7440-38-2	Arsenic	3.8			P
7440-39-3	Barium	74.6		E J	P
7440-41-7	Beryllium	0.49	B		P
7440-43-9	Cadmium	0.03	U		P
7440-70-2	Calcium	967		E J	P
7440-47-3	Chromium	16.8		E J	P
7440-48-4	Cobalt	11.6		E J	P
7440-50-8	Copper	139		E J	P
7439-89-6	Iron	29900		E J	P
7439-92-1	Lead	145		E J	P
7439-95-4	Magnesium	4310		E J	P
7439-96-5	Manganese	698		E J	P
7440-02-0	Nickel	28.0		E J	P
7440-09-7	Potassium	760		E J	P
7782-49-2	Selenium	1.3			P
7439-97-6	Mercury	0.011	B		CV
7440-22-4	Silver	0.10	U		P
7440-23-5	Sodium	43.5	B		P
7440-28-0	Thallium	0.60	U	J	P
7440-62-2	Vanadium	16.1		E J	P
7440-66-6	Zinc	59.9		E J	P

CVT 07/23/02

Color Before: BROWN Clarity Before: Texture: SILT

Color After: YELLOW Clarity After: CLOUDY Artifacts:

Comments:

ORGANIC QC SUMMARY FORMS

Camp Pharsalia Site

SDG No. A01-B630

Environmental Quality Associates, Inc.

SEMI-VOLATILE ORGANICS
QC PARAMETER / QUALIFIER SUMMARY
SW846 METHOD 8270 C

CLIENT: SHAW E&I - LATHAM, NY PROJECT: NYSDEC - CAMP PHARSALIA SDG No.: A01-B630

A. HOLDING TIMES (NYSDEC-ASP)

NON-AQUEOUS MATRIX: 10 DAYS MAXIMUM FROM VTSR TO EXTRACTION
AQUEOUS MATRIX: 5 DAYS MAXIMUM FROM VTSR TO EXTRACTION
ALL MATRICES: 40 DAYS MAXIMUM FROM EXTRACTION TO ANALYSIS

B. METHOD BLANKS

Blank ID	File ID	Matrix	Analytes Present	Conc., ug/Kg
SBLK65	Y49852	soil	none	n/a

ACTION: If sample concentration >CRQL, but <10x Blank value, flag result with 'U'
If sample concentration <CRQL, and <10x Blank value, report CRQL and flag with 'U'
If sample concentration >CRQL, and >10x Blank value, no qualification necessary

C. SURROGATE RECOVERY

Sample ID	Surrogate	Bias	Surrogate	Bias	ACTION
All surrogate recoveries were within acceptable limits.					none necessary

D. MATRIX SPIKE / DUPLICATE

Sample ID	Spike Compound	MS or MSD	Bias	ACTION
SS-1	All MS/MSD recoveries and %RPD values were within acceptable limits.			

Note: only CLP spike compounds were added.

E. BLANK SPIKE

Sample ID	Spike Compound	Bias	ACTION
MSB65	All MSB recoveries were within acceptable limits.		

Note: only CLP spike compounds were added.

F. INTERNAL STANDARDS

Sample ID	Internal Standard	Bias	ACTION
All IS recoveries & RTs were within acceptable limits			

G. INSTRUMENT TUNES

Date	m/z abundance	< 12-hrs.	ACTION
09/26/01	OK	yes	
12/03/01	OK	yes	
12/03/01	OK	yes	
12/05/01	OK	yes	
12/05/01	OK	yes	
12/06/01	OK	yes	

H. SAMPLE RESULT VERIFICATION

Sample ID	Compound	Reported Conc., ug/Kg	Calculated Conc., ug/Kg
SS-6 DL	pentachlorophenol	70000	70227

Conc., ug/Kg = (Ax x Is x Vt x Df x GPC) / (Ais x RRF x Vi x Ws x D)

Ax	Is	Vt	Df	GPC
716035	40.0	1000	20.0	1.0
Ais	**RRF**	**Vi**	**Ws**	**D**
1874509	0.158	1.0	30.91	0.89

SEMI-VOLATILE ORGANICS
CALIBRATION SUMMARY
SW846 METHOD 8270C

CLIENT: SHAW E&I - LATHAM, NY PROJECT : NYSDEC - CAMP PHARSALIA SDG No.: A01-B630

A. INITIAL CALIBRATION

CALIBRATION DATE :	09/26/01	12/05/01
FILE IDs :	Y48936 - 941	Y49869 - 873
ALL RRFs > 0.05 ?	Yes	Yes
SPCC RRFs >0.05 ?	Yes	Yes
CCC %RSDs < 30% ?	Yes	Yes
All Targets < 15% RSD?	NO	NO
(If No, list compounds)	hexachlorocyclopentadiene	hexachlorocyclopentadiene
SPCC Compounds	2-nitroaniline	2-nitroaniline
N-Nitroso-di-n-propylamine	2,6-dinitrotoluene	2,6-dinitrotoluene
Hexachlorocyclopentadiene	3-nitroaniline	3-nitroaniline
2,4-Dinitrophenol	2,4-dinitrophenol	2,4-dinitrophenol
4-Nitrophenol	4-nitroaniline	4-nitroaniline
MINIMUM RRF = 0.050	3,3'-dichlorobenzidine	4,6-dinitro-2-methylphenol

CCC Compounds
Base/Neutrals
Acenaphthene
1,4-Dichlorobenzene
Hexachlorobutadiene
Diphenylamine
Di-n-octylphthalate
Fluoranthene
Benzo(a)pyrene
Acids
4-Chloro-3-methylphenol
2,4-Dichlorophenol
2-Nitrophenol
Phenol
Pentachlorophenol
2,4,6-Trichlorophenol
MAXIMUM %RSD = 30.0%

ACTION : Qualify 'J' all positive compounds which exceed 15% RSD in associated samples.

B. CONTINUING CALIBRATIONS

SPCC Compounds	CALIBRATION DATE :	12/03/01	12/05/01	12/06/01
N-Nitroso-di-n-propylamine	FILE IDs :	Y49851	Y49881	Y49899
Hexachlorocyclopentadiene	ALL RRFs > 0.05 ?	Yes	Yes	Yes
2,4-Dinitrophenol	SPCC RRFs >0.05 ?	Yes	Yes	Yes
4-Nitrophenol	CCC %Ds < 20% ?	Yes	Yes	Yes
MINIMUM RRF = 0.050	All Targets < 20%D?	NO	Yes	NO
	(If No, list compounds)	isophorone		2,4-dinitrophenol
		2,4-dinitrophenol		
		benzo(k)fluoranthene		

CCC Compounds
Base/Neutrals
Acenaphthene
1,4-Dichlorobenzene
Hexachlorobutadiene
Diphenylamine
Di-n-octylphthalate
Fluoranthene
Benzo(a)pyrene
Acids
4-Chloro-3-methylphenol
2,4-Dichlorophenol
2-Nitrophenol
Phenol
Pentachlorophenol
2,4,6-Trichlorophenol
MAXIMUM %D = 20.0%

ACTION : Qualify 'J' or 'UJ' all reported results for compounds which exceed 20%D in associated samples.

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ENVIRONMENTAL QUALITY ASSOCIATES, INC.
SPECIALISTS IN DATA VALIDATION SINCE 1994

August 5, 2002

Shaw Group E & I
Att: Tanjia Maynard, Project Manager
13 British – American Boulevard
Latham, New York 12110

Re: NYSDEC / Camp Pharsalia Laboratory Analytical Data

Dear Ms. Maynard,

This cover letter and attachments are a Data Usability Summary Report (DUSR) for the following analytical results contained in the above-referenced deliverables set. The attached documents include the laboratory data reports with data qualifications resulting from the DUSR effort per the NYSDEC ASP and Region II SOP indicated in red ink.

Site Name: Camp Pharsalia

Fractions

PCDD/PCDF, 8290, 8280* Laboratory: STL, West Sacramento, CA.

SDG No.: A01-B634 Matrix: Non-Aqueous

Reviewer: Bruce Wallin

Prepared by: Environmental Quality Associates, Inc.

SECTION A
Sample Information

The above-noted project samples were analyzed for polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans (PCDD/PCDF) by USEPA SW-846 Method 8290. A summary table of samples analyzed is presented below.

Field or rinse blank results were not reported with the data deliverables package. Therefore, these parameters indicated in the SOP, could not be evaluated.

Sample ID	Lab ID	Matrix	Date Collected
SS-1	G1K240118-1	S	11/16/01
SS-2	G1K240118-2	S	11/16/01
SS-3	G1K240118-3	S	11/16/01
SS-4	G1K240118-4	S	11/16/01
SS-5*	G1K240118-5	S	11/16/01
SS-6*	G1K240118-5	S	11/16/01
SS-7	G1K240118-7	S	11/16/01
SS-8*	G1K240118-8	S	11/16/01
SS-9*	G1K240118-9	S	11/16/01
SB-1 (10-12)	G1K240118-10	S	11/15/01
SB-2 (10-12)	G1K240118-11	S	11/15/01
SB-3 (10-12)	G1K240118-12	S	11/15/01
SB-4 (6-8)	G1K240118-13	S	11/16/01
SB-5 (8-10)	G1K240118-14	S	11/16/01
SB-6 (4-6)	G1K240118-15	S	11/16/01
SB-7 (2-4)	G1K240118-16	S	11/16/01
SB-700 (2-4)	G1K240118-17	S	11/16/01
SS-700	G1K240118-18	S	11/16/01

* = Sample analyzed by Method 8280.
S = Non-Aqueous Matrix Total Samples = 18

SECTION B
Data Completeness

The data package was reviewed and considered equivalent to an ASP Category B deliverable, per DUSR requirement.

SECTION C
Holding Times

All samples were extracted within a maximum of 18 days from collection and 12 days from verified time of receipt at the laboratory (VTSR) which is within the 30 days from VTSR indicated in the ASP. All extracts were analyzed within a maximum of 24 days from extraction, which is within the 40 days indicated in the ASP. The COC information was provided in an illegible form (unreadable copy), therefore, the VTSR was based on the received date indicated on the laboratory Sample Summary. According to the Buffalo facility SDG narrative, "the cooler was received at a temperature of 2°C." According to the W. Sacramento SDG narrative, "the samples were five degrees Celsius at the time of receipt."

The latter temperature exceeds the 4° C specified in the Method, ASP, and SOP. No action was taken on the basis of professional judgment since the parameters of interest are resistant to chemical and biological degradation, however, the data user is cautioned that the exceedence may impact data defensibility.

SECTION D
QC INFORMATION

With the following exceptions, all performance criteria evaluated within the DUSR requirements were within specification.

1. Calibrations.

For 1,2,3,4,7,8-HxCDD, and 1,2,3,7,8,9-HxCDD the continuing calibration ST1213B provided RRF %Ds of 25.2 and 25.1, respectively, which exceed the control limit of ± 20%. The results for these parameters reported for associated samples SS-1, SS-2, SS-3, SS-4, and SS-7 were flagged as estimated 'J' to signify the potential for high bias of the indicated amount.

2. Internal Standards.

For sample SS-1, the recoveries of all internal standards were below the 40% lower limit but above the 25% minimum indicated in the SOP. On the basis of professional judgment, the results for all parameters were flagged as estimated 'J' to signify the potential for low bias.

For sample SB-7 (2-4), the recovery of the internal standard ^{13}C-1,2,3,4,7,8-HxCDF was below the 50% limit but above the 25% minimum indicated in the SOP. On the basis of professional judgment, the results reported for all HxCDF parameters were flagged as estimated 'J' to signify the potential for low bias.

Samples SS-6, SS-8, and SS-9 provided elevated recoveries of the internal standard ^{13}C-OCDD. The results reported for OCDD that were positive in all of these samples were flagged as estimated 'J' to signify the potential for high bias.

3. Quantitation models.

Section 7.9.1 of Method 8290 indicates that, for the quantitation of target analytes, the laboratory is to use the average relative response factor from the associated initial calibration. Section 7.2.11 of the SOP indicates that the relative response factor obtained from the associated continuing calibration is to be used for the quantitation of target analytes. The laboratory used the model specified in the Method and this model was verified by the reviewer. The data user is notified that utilization of the quantitation model specified in the SOP will result in values that may differ as much as ± 20% from those provided in the laboratory reports.

See the attached Calibration Summary and QC Parameter/Qualifier Summary.

Additional QC items:

- Reporting limits: Several parameters were reported below the laboratory reporting limit. These were flagged as estimated 'J' by the laboratory and should be considered as estimates due to the statistical uncertainty at the low levels.
- Ion ratios. For sample SS-1 the analysis on the DB-5 column provided an ion ratio for the internal standard ^{13}C-2,3,7,8-TCDF that was not within specification. No action was taken, since the value reported is from the confirmation column that provided acceptable ion ratios. Sample SS-4 provided non-compliant ion ratio for the internal standard ^{13}C-1,2,3,4,6,7,8-HpCDF. The results for parameters quantified from this internal standard in the sample were flagged as estimated 'J' to signify the potential for high bias.
- Diluted samples: Samples SS-4, SS-7 and SS-700 were originally analyzed undiluted and the signals for some parameters exceeded that of the highest initial calibration standard signal. These samples were diluted and reanalyzed since the narrative indicated that some of the signals were considered detector saturation. For all diluted values the laboratory flagged the associated values with the 'D' qualifier. For some samples the signals for some analytes exceeded the calibration range. These were flagged with the 'E' qualifier by the laboratory when a dilution was or was not performed. The narrative indicated that, for these situations, historical information suggests that dilution would not significantly change the result. The Method requires dilutions for the fifteen 2,3,7,8-substituted parameters providing signals in excess of the calibration range (section 7.9.3). On the basis of professional judgment the values for ALL analytes that were from extracts that were not diluted, or diluted and still exceeded the calibration range (flagged 'D, E' by the laboratory) have been flagged as estimated 'J' to signify the potential for biases.
- Samples SS-5, SS-6, SS-8, and SS-9 were analyzed by Method 8280 due to the levels of several parameters in the ng/g range. This is an allowed option in Method 8290. On the basis of professional judgment, the positive results were flagged as estimated 'J' to signify the potential for high bias due to the less specific methodology used.
- A matrix spike/ matrix spike duplicate was not reported, therefore, this item indicated in the SOP could not be evaluated.
- On the basis of previous knowledge regarding sample identification conventions it is assumed that sample SS-700 is a duplicate of sample SS-7 and sample SB-700 is a duplicate of sample SB-7. For sample SS-7 considerable difference was reported for several parameters. For sample SB-7 values in excess of the limits were reported for total TCDD and total PeCDD. No action was taken, however, if the assumption of sample identification is correct, considerable heterogeneity is indicated, with the potential for impact on representativeness.
- For Method 8290, Section 5.0 of the SOP indicates that initial calibrations do not have to be performed daily but "should be analyzed at least once every week and/or whenever the continuing calibration standard does not meet criteria." For the samples associated with this SDG the initial calibration was performed up to approximately two months prior to the analytical event. No action was taken, based on professional judgment, since the Method only specifies the requirement for initial calibration when cal solutions are replaced or the continuing calibration does not meet specification.

SECTION E
SAMPLE RESULT VERIFICATION

For sample SS-1, the result reported for 2,3,7,8-TCDD was verified from the raw data. See the QC Parameter/Qualifier Summary for details.

SECTION F
Overall Recommendations

The results of the review and validation process for the above analytical fraction and associated samples are summarized on the attached notated Analytical Reports, Calibration and QC parameter summaries. From this information it does not appear reasonable or judicious utilization of funds to re-generate any data to resolve any technical discrepancies identified in the DUSR efforts associated with the SDG.

Very truly yours,
Environmental Quality Associates, Inc.

Chris W. Taylor for
Vice President

Attachments

STL BUFFALO

Client Sample ID: SB-1(10-12)

Trace Level Organic Compounds

Lot-Sample #...: G1K240118-010 Work Order #...: EPF261AC Matrix.....: SOLID
Date Sampled...: 11/15/01 Date Received..: 11/23/01
Prep Date.....: 12/03/01 Analysis Date..: 12/27/01
Prep Batch #...: 1337482
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Total TCDF	ND	0.30	pg/g	SW846 8290
Total PeCDF	ND	0.30	pg/g	SW846 8290
Total HxCDF	ND	0.96	pg/g	SW846 8290
Total HpCDF	5.2		pg/g	SW846 8290
Total TCDD	ND	0.26	pg/g	SW846 8290
Total PeCDD	ND	1.5	pg/g	SW846 8290
Total HxCDD	ND	0.57	pg/g	SW846 8290
Total HpCDD	15		pg/g	SW846 8290
2,3,7,8-TCDD	ND	0.26	pg/g	SW846 8290
1,2,3,7,8-PeCDD	ND	1.5	pg/g	SW846 8290
1,2,3,4,7,8-HxCDD	ND	0.29	pg/g	SW846 8290
1,2,3,6,7,8-HxCDD	ND	0.37	pg/g	SW846 8290
1,2,3,7,8,9-HxCDD	ND	0.27	pg/g	SW846 8290
1,2,3,4,6,7,8-HpCDD	9.8		pg/g	SW846 8290
OCDD	63		pg/g	SW846 8290
2,3,7,8-TCDF	ND	0.30	pg/g	SW846 8290
1,2,3,7,8-PeCDF	ND	0.24	pg/g	SW846 8290
2,3,4,7,8-PeCDF	ND	0.24	pg/g	SW846 8290
1,2,3,4,7,8-HxCDF	ND	0.16	pg/g	SW846 8290
1,2,3,6,7,8-HxCDF	ND	0.28	pg/g	SW846 8290
2,3,4,6,7,8-HxCDF	ND	0.17	pg/g	SW846 8290
1,2,3,7,8,9-HxCDF	ND	0.18	pg/g	SW846 8290
1,2,3,4,6,7,8-HpCDF	ND	1.6	pg/g	SW846 8290
1,2,3,4,7,8,9-HpCDF	ND	0.93	pg/g	SW846 8290
OCDF	7.7 (J)		pg/g	SW846 8290

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	76	(40 - 135)
13C-1,2,3,7,8-PeCDD	73	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	68	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	82	(40 - 135)
13C-OCDD	78	(40 - 135)
13C-2,3,7,8-TCDF	75	(40 - 135)
13C-1,2,3,7,8-PeCDF	70	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	59	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	73	(40 - 135)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than the reporting limit.

STL BUFFALO

Client Sample ID: SB-2(10-12)

Trace Level Organic Compounds

Lot-Sample #...: G1K240118-011 Work Order #...: EPF271AC Matrix.....: SOLID
Date Sampled...: 11/15/01 Date Received..: 11/23/01
Prep Date.....: 12/03/01 Analysis Date..: 12/15/01
Prep Batch #...: 1337482
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Total TCDF	ND	0.36	pg/g	SW846 8290
Total PeCDF	ND	0.58	pg/g	SW846 8290
Total HxCDF	22		pg/g	SW846 8290
Total HpCDF	150		pg/g	SW846 8290
Total TCDD	ND	0.58	pg/g	SW846 8290
Total PeCDD	ND	0.79	pg/g	SW846 8290
Total HxCDD	12		pg/g	SW846 8290
Total HpCDD	180		pg/g	SW846 8290
2,3,7,8-TCDD	ND	0.58	pg/g	SW846 8290
1,2,3,7,8-PeCDD	ND	0.79	pg/g	SW846 8290
1,2,3,4,7,8-HxCDD	ND	0.67	pg/g	SW846 8290
1,2,3,6,7,8-HxCDD	6.1		pg/g	SW846 8290
1,2,3,7,8,9-HxCDD	ND	2.7	pg/g	SW846 8290
1,2,3,4,6,7,8-HpCDD	120		pg/g	SW846 8290
OCDD	550		pg/g	SW846 8290
2,3,7,8-TCDF	ND	0.36	pg/g	SW846 8290
1,2,3,7,8-PeCDF	ND	0.58	pg/g	SW846 8290
2,3,4,7,8-PeCDF	ND	0.56	pg/g	SW846 8290
1,2,3,4,7,8-HxCDF	ND	1.1	pg/g	SW846 8290
1,2,3,6,7,8-HxCDF	ND	0.92	pg/g	SW846 8290
2,3,4,6,7,8-HxCDF	ND	1.1	pg/g	SW846 8290
1,2,3,7,8,9-HxCDF	ND	1.2	pg/g	SW846 8290
1,2,3,4,6,7,8-HpCDF	30		pg/g	SW846 8290
1,2,3,4,7,8,9-HpCDF	ND	2.0	pg/g	SW846 8290
OCDF	180		pg/g	SW846 8290

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	71	(40 - 135)
13C-1,2,3,7,8-PeCDD	82	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	73	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	87	(40 - 135)
13C-OCDD	89	(40 - 135)
13C-2,3,7,8-TCDF	79	(40 - 135)
13C-1,2,3,7,8-PeCDF	88	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	68	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	84	(40 - 135)

NOTE(S):
Results and reporting limits have been adjusted for dry weight.

STL BUFFALO

Client Sample ID: SB-3(10-12)

Trace Level Organic Compounds

Lot-Sample #...: G1K240118-012 Work Order #...: EPF281AC Matrix.....: SOLID
Date Sampled...: 11/15/01 Date Received..: 11/23/01
Prep Date.....: 12/03/01 Analysis Date..: 12/15/01
Prep Batch #...: 1337482
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Total TCDF	ND	0.29	pg/g	SW846 8290
Total PeCDF	ND	0.56	pg/g	SW846 8290
Total HxCDF	14		pg/g	SW846 8290
Total HpCDF	120		pg/g	SW846 8290
Total TCDD	ND	0.40	pg/g	SW846 8290
Total PeCDD	ND	2.0	pg/g	SW846 8290
Total HxCDD	8.3		pg/g	SW846 8290
Total HpCDD	150		pg/g	SW846 8290
2,3,7,8-TCDD	ND	0.40	pg/g	SW846 8290
1,2,3,7,8-PeCDD	ND	2.0	pg/g	SW846 8290
1,2,3,4,7,8-HxCDD	ND	0.66	pg/g	SW846 8290
1,2,3,6,7,8-HxCDD	4.3 (J)		pg/g	SW846 8290
1,2,3,7,8,9-HxCDD	ND	1.3	pg/g	SW846 8290
1,2,3,4,6,7,8-HpCDD	99		pg/g	SW846 8290
OCDD	500		pg/g	SW846 8290
2,3,7,8-TCDF	ND	0.29	pg/g	SW846 8290
1,2,3,7,8-PeCDF	ND	0.56	pg/g	SW846 8290
2,3,4,7,8-PeCDF	ND	0.56	pg/g	SW846 8290
1,2,3,4,7,8-HxCDF	ND	1.2	pg/g	SW846 8290
1,2,3,6,7,8-HxCDF	ND	0.46	pg/g	SW846 8290
2,3,4,6,7,8-HxCDF	ND	0.70	pg/g	SW846 8290
1,2,3,7,8,9-HxCDF	ND	3.3	pg/g	SW846 8290
1,2,3,4,6,7,8-HpCDF	24		pg/g	SW846 8290
1,2,3,4,7,8,9-HpCDF	ND	3.8	pg/g	SW846 8290
OCDF	160		pg/g	SW846 8290

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	60	(40 - 135)
13C-1,2,3,7,8-PeCDD	68	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	56	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	70	(40 - 135)
13C-OCDD	70	(40 - 135)
13C-2,3,7,8-TCDF	67	(40 - 135)
13C-1,2,3,7,8-PeCDF	78	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	54	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	64	(40 - 135)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than the reporting limit.

STL BUFFALO

Client Sample ID: SB-4 (6-8)

Trace Level Organic Compounds

Lot-Sample #...: G1K240118-013 Work Order #...: BPF291AC Matrix.....: SOLID
Date Sampled...: 11/16/01 Date Received..: 11/23/01
Prep Date.....: 12/03/01 Analysis Date..: 12/27/01
Prep Batch #...: 1337482
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Total TCDF	ND	0.27	pg/g	SW846 8290
Total PeCDF	ND	0.22	pg/g	SW846 8290
Total HxCDF	ND	0.76	pg/g	SW846 8290
Total HpCDF	3.9		pg/g	SW846 8290
Total TCDD	ND	0.16	pg/g	SW846 8290
Total PeCDD	ND	0.68	pg/g	SW846 8290
Total HxCDD	ND	0.68	pg/g	SW846 8290
Total HpCDD	13		pg/g	SW846 8290
2,3,7,8-TCDD	ND	0.16	pg/g	SW846 8290
1,2,3,7,8-PeCDD	ND	0.68	pg/g	SW846 8290
1,2,3,4,7,8-HxCDD	ND	0.16	pg/g	SW846 8290
1,2,3,6,7,8-HxCDD	ND	0.47	pg/g	SW846 8290
1,2,3,7,8,9-HxCDD	ND	0.26	pg/g	SW846 8290
1,2,3,4,6,7,8-HpCDD	8.0		pg/g	SW846 8290
OCDD	50		pg/g	SW846 8290
2,3,7,8-TCDF	ND	0.27	pg/g	SW846 8290
1,2,3,7,8-PeCDF	ND	0.15	pg/g	SW846 8290
2,3,4,7,8-PeCDF	ND	0.15	pg/g	SW846 8290
1,2,3,4,7,8-HxCDF	ND	0.17	pg/g	SW846 8290
1,2,3,6,7,8-HxCDF	ND	0.17	pg/g	SW846 8290
2,3,4,6,7,8-HxCDF	ND	0.18	pg/g	SW846 8290
1,2,3,7,8,9-HxCDF	ND	0.20	pg/g	SW846 8290
1,2,3,4,6,7,8-HpCDF	ND	2.0	pg/g	SW846 8290
1,2,3,4,7,8,9-HpCDF	ND	0.46	pg/g	SW846 8290
OCDF	5.6 (J)		pg/g	SW846 8290

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	77	(40 - 135)
13C-1,2,3,7,8-PeCDD	74	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	78	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	86	(40 - 135)
13C-OCDD	83	(40 - 135)
13C-2,3,7,8-TCDF	76	(40 - 135)
13C-1,2,3,7,8-PeCDF	72	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	72	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	88	(40 - 135)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than the reporting limit.

STL BUFFALO

Client Sample ID: SB-5 (8-10)

Trace Level Organic Compounds

Lot-Sample #...: G1K240118-014 Work Order #...: EPF3A1AC Matrix.....: SOLID
Date Sampled...: 11/16/01 Date Received..: 11/23/01
Prep Date.....: 12/03/01 Analysis Date..: 12/27/01
Prep Batch #...: 1337482
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Total TCDF	ND	0.19	pg/g	SW846 8290
Total PeCDF	ND	0.20	pg/g	SW846 8290
Total HxCDF	ND	2.3	pg/g	SW846 8290
Total HpCDF	19		pg/g	SW846 8290
Total TCDD	ND	0.13	pg/g	SW846 8290
Total PeCDD	ND	0.36	pg/g	SW846 8290
Total HxCDD	ND	0.85	pg/g	SW846 8290
Total HpCDD	31		pg/g	SW846 8290
2,3,7,8-TCDD	ND	0.13	pg/g	SW846 8290
1,2,3,7,8-PeCDD	ND	0.36	pg/g	SW846 8290
1,2,3,4,7,8-HxCDD	ND	0.14	pg/g	SW846 8290
1,2,3,6,7,8-HxCDD	ND	0.85	pg/g	SW846 8290
1,2,3,7,8,9-HxCDD	ND	0.24	pg/g	SW846 8290
1,2,3,4,6,7,8-HpCDD	19		pg/g	SW846 8290
OCDD	160		pg/g	SW846 8290
2,3,7,8-TCDF	ND	0.19	pg/g	SW846 8290
1,2,3,7,8-PeCDF	ND	0.14	pg/g	SW846 8290
2,3,4,7,8-PeCDF	ND	0.14	pg/g	SW846 8290
1,2,3,4,7,8-HxCDF	ND	0.20	pg/g	SW846 8290
1,2,3,6,7,8-HxCDF	ND	0.075	pg/g	SW846 8290
2,3,4,6,7,8-HxCDF	ND	0.084	pg/g	SW846 8290
1,2,3,7,8,9-HxCDF	ND	0.090	pg/g	SW846 8290
1,2,3,4,6,7,8-HpCDF	3.7 (J)		pg/g	SW846 8290
1,2,3,4,7,8,9-HpCDF	ND	0.46	pg/g	SW846 8290
OCDF	21		pg/g	SW846 8290

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	76	(40 - 135)
13C-1,2,3,7,8-PeCDD	71	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	78	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	85	(40 - 135)
13C-OCDD	81	(40 - 135)
13C-2,3,7,8-TCDF	76	(40 - 135)
13C-1,2,3,7,8-PeCDF	69	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	68	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	81	(40 - 135)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than the reporting limit.

STL BUFFALO

Client Sample ID: SB-6 (4-6)

Trace Level Organic Compounds

Lot-Sample #...: G1K240118-015 Work Order #...: EPF3C1AC Matrix.....: SOLID
Date Sampled...: 11/16/01 Date Received..: 11/23/01
Prep Date.....: 12/03/01 Analysis Date..: 12/15/01
Prep Batch #...: 1337482
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Total TCDF	ND	0.25	pg/g	SW846 8290
Total PeCDF	ND	0.40	pg/g	SW846 8290
Total HxCDF	ND	1.7	pg/g	SW846 8290
Total HpCDF	6.6		pg/g	SW846 8290
Total TCDD	ND	0.36	pg/g	SW846 8290
Total PeCDD	ND	0.81	pg/g	SW846 8290
Total HxCDD	ND	0.69	pg/g	SW846 8290
Total HpCDD	17		pg/g	SW846 8290
2,3,7,8-TCDD	ND	0.36	pg/g	SW846 8290
1,2,3,7,8-PeCDD	ND	0.81	pg/g	SW846 8290
1,2,3,4,7,8-HxCDD	ND	0.65	pg/g	SW846 8290
1,2,3,6,7,8-HxCDD	ND	0.69	pg/g	SW846 8290
1,2,3,7,8,9-HxCDD	ND	0.64	pg/g	SW846 8290
1,2,3,4,6,7,8-HpCDD	12		pg/g	SW846 8290
OCDD	45		pg/g	SW846 8290
2,3,7,8-TCDF	ND	0.25	pg/g	SW846 8290
1,2,3,7,8-PeCDF	ND	0.40	pg/g	SW846 8290
2,3,4,7,8-PeCDF	ND	0.40	pg/g	SW846 8290
1,2,3,4,7,8-HxCDF	ND	0.49	pg/g	SW846 8290
1,2,3,6,7,8-HxCDF	ND	0.43	pg/g	SW846 8290
2,3,4,6,7,8-HxCDF	ND	0.54	pg/g	SW846 8290
1,2,3,7,8,9-HxCDF	ND	0.57	pg/g	SW846 8290
1,2,3,4,6,7,8-HpCDF	ND	2.2	pg/g	SW846 8290
1,2,3,4,7,8,9-HpCDF	ND	0.60	pg/g	SW846 8290
OCDF	7.3 (J)		pg/g	SW846 8290

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	79	(40 - 135)
13C-1,2,3,7,8-PeCDD	86	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	76	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	84	(40 - 135)
13C-OCDD	78	(40 - 135)
13C-2,3,7,8-TCDF	88	(40 - 135)
13C-1,2,3,7,8-PeCDF	89	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	64	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	73	(40 - 135)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than the reporting limit.

STL BUFFALO

Client Sample ID: SB-7 (2-4)

Trace Level Organic Compounds

Lot-Sample #...: G1K240118-016 Work Order #...: BPF3D1AC Matrix.....: SOLID
Date Sampled...: 11/16/01 Date Received..: 11/23/01
Prep Date.....: 12/03/01 Analysis Date..: 12/15/01
Prep Batch #...: 1337482
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Total TCDF	ND	0.52	pg/g	SW846 8290
Total PeCDF	ND	0.84	pg/g	SW846 8290
Total HxCDF	ND J	1.6	pg/g	SW846 8290
Total HpCDF	13		pg/g	SW846 8290
Total TCDD	18		pg/g	SW846 8290
Total PeCDD	14		pg/g	SW846 8290
Total HxCDD	3.5		pg/g	SW846 8290
Total HpCDD	23		pg/g	SW846 8290
2,3,7,8-TCDD	ND	0.64	pg/g	SW846 8290
1,2,3,7,8-PeCDD	ND	1.6	pg/g	SW846 8290
1,2,3,4,7,8-HxCDD	ND	0.94	pg/g	SW846 8290
1,2,3,6,7,8-HxCDD	ND	1.2	pg/g	SW846 8290
1,2,3,7,8,9-HxCDD	ND	0.92	pg/g	SW846 8290
1,2,3,4,6,7,8-HpCDD	17		pg/g	SW846 8290
OCDD	42		pg/g	SW846 8290
2,3,7,8-TCDF	ND	0.52	pg/g	SW846 8290
1,2,3,7,8-PeCDF	ND	0.79	pg/g	SW846 8290
2,3,4,7,8-PeCDF	ND	0.79	pg/g	SW846 8290
1,2,3,4,7,8-HxCDF	ND J	1.0	pg/g	SW846 8290
1,2,3,6,7,8-HxCDF	ND J	0.87	pg/g	SW846 8290
2,3,4,6,7,8-HxCDF	ND J	1.1	pg/g	SW846 8290
1,2,3,7,8,9-HxCDF	ND J	1.2	pg/g	SW846 8290
1,2,3,4,6,7,8-HpCDF	3.4 (J)		pg/g	SW846 8290
1,2,3,4,7,8,9-HpCDF	ND	0.83	pg/g	SW846 8290
OCDF	11 (J)		pg/g	SW846 8290

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	40	(40 - 135)
13C-1,2,3,7,8-PeCDD	43	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	41	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	46	(40 - 135)
13C-OCDD	43	(40 - 135)
13C-2,3,7,8-TCDF	45	(40 - 135)
13C-1,2,3,7,8-PeCDF	46	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	37 *	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	42	(40 - 135)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than the reporting limit.

* Surrogate recovery is outside stated control limits.

STL BUFFALO

Client Sample ID: SB-700 (2-4)

Trace Level Organic Compounds

Lot-Sample #...: G1K240118-017 Work Order #...: EPF3E1AC Matrix.....: SOLID
Date Sampled...: 11/16/01 Date Received..: 11/23/01
Prep Date.....: 12/03/01 Analysis Date..: 12/15/01
Prep Batch #...: 1337482
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Total TCDF	ND	0.27	pg/g	SW846 8290
Total PeCDF	ND	0.43	pg/g	SW846 8290
Total HxCDF	ND	1.8	pg/g	SW846 8290
Total HpCDF	11		pg/g	SW846 8290
Total TCDD	4.9		pg/g	SW846 8290
Total PeCDD	4.5		pg/g	SW846 8290
Total HxCDD	ND	1.0	pg/g	SW846 8290
Total HpCDD	22		pg/g	SW846 8290
2,3,7,8-TCDD	ND	0.49	pg/g	SW846 8290
1,2,3,7,8-PeCDD	ND	0.85	pg/g	SW846 8290
1,2,3,4,7,8-HxCDD	ND	0.46	pg/g	SW846 8290
1,2,3,6,7,8-HxCDD	ND	0.70	pg/g	SW846 8290
1,2,3,7,8,9-HxCDD	ND	0.45	pg/g	SW846 8290
1,2,3,4,6,7,8-HpCDD	15		pg/g	SW846 8290
OCDD	85		pg/g	SW846 8290
2,3,7,8-TCDF	ND	0.27	pg/g	SW846 8290
1,2,3,7,8-PeCDF	ND	0.36	pg/g	SW846 8290
2,3,4,7,8-PeCDF	ND	0.36	pg/g	SW846 8290
1,2,3,4,7,8-HxCDF	ND	0.50	pg/g	SW846 8290
1,2,3,6,7,8-HxCDF	ND	0.43	pg/g	SW846 8290
2,3,4,6,7,8-HxCDF	ND	0.53	pg/g	SW846 8290
1,2,3,7,8,9-HxCDF	ND	0.57	pg/g	SW846 8290
1,2,3,4,6,7,8-HpCDF	2.9 (J)		pg/g	SW846 8290
1,2,3,4,7,8,9-HpCDF	ND	0.39	pg/g	SW846 8290
OCDF	11 (J)		pg/g	SW846 8290

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	76	(40 - 135)
13C-1,2,3,7,8-PeCDD	82	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	76	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	84	(40 - 135)
13C-OCDD	78	(40 - 135)
13C-2,3,7,8-TCDF	91	(40 - 135)
13C-1,2,3,7,8-PeCDF	88	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	66	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	78	(40 - 135)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than the reporting limit.

STL BUFFALO

Client Sample ID: ~~SB-700~~ SS-700 CQ

Trace Level Organic Compounds

Lot-Sample #...: G1K240118-018 Work Order #...: EPF3F1AC Matrix.....: SOLID
Date Sampled...: 11/16/01 Date Received..: 11/23/01
Prep Date.....: 12/03/01 Analysis Date..: 12/15/01
Prep Batch #...: 1337482
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Total TCDF	82		pg/g	SW846 8290
Total PeCDF	1200		pg/g	SW846 8290
Total HxCDF	16000		pg/g	SW846 8290
Total HpCDF	81000		pg/g	SW846 8290
Total TCDD	48		pg/g	SW846 8290
Total PeCDD	730		pg/g	SW846 8290
Total HxCDD	11000		pg/g	SW846 8290
Total HpCDD	110000		pg/g	SW846 8290
2,3,7,8-TCDD	17		pg/g	SW846 8290
1,2,3,7,8-PeCDD	270		pg/g	SW846 8290
1,2,3,4,7,8-HxCDD	610 D		pg/g	SW846 8290
1,2,3,6,7,8-HxCDD	2900 D		pg/g	SW846 8290
1,2,3,7,8,9-HxCDD	1500 D		pg/g	SW846 8290
1,2,3,4,6,7,8-HpCDD	67000 D		pg/g	SW846 8290
OCDD	380000 E,D J		pg/g	SW846 8290
2,3,7,8-TCDF	14 CON		pg/g	SW846 8290
1,2,3,7,8-PeCDF	90		pg/g	SW846 8290
2,3,4,7,8-PeCDF	72		pg/g	SW846 8290
1,2,3,4,7,8-HxCDF	610		pg/g	SW846 8290
1,2,3,6,7,8-HxCDF	350		pg/g	SW846 8290
2,3,4,6,7,8-HxCDF	270		pg/g	SW846 8290
1,2,3,7,8,9-HxCDF	23		pg/g	SW846 8290
1,2,3,4,6,7,8-HpCDF	23000 D		pg/g	SW846 8290
1,2,3,4,7,8,9-HpCDF	1300 D		pg/g	SW846 8290
OCDF	55000 D		pg/g	SW846 8290

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	58	(40 - 135)
13C-1,2,3,7,8-PeCDD	76	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	60	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	80	(40 - 135)
13C-OCDD	106	(40 - 135)
13C-2,3,7,8-TCDF	66	(40 - 135)
13C-1,2,3,7,8-PeCDF	82	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	68	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	60	(40 - 135)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

D Result was obtained from the analysis of a dilution.

E Estimated result. Result concentration exceeds the calibration range.

CON Confirmation analysis.

STL BUFFALO

Client Sample ID: SS-1

Trace Level Organic Compounds

Lot-Sample #...: G1K240118-001 Work Order #...: EPF2V1AC Matrix.....: SOLID
Date Sampled...: 11/16/01 Date Received..: 11/23/01
Prep Date.....: 12/03/01 Analysis Date..: 12/14/01
Prep Batch #...: 1337482
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Total TCDF	1.0		pg/g	SW846 8290
Total PeCDF	31		pg/g	SW846 8290
Total HxCDF	490		pg/g	SW846 8290
Total HpCDF	1900		pg/g	SW846 8290
Total TCDD	1.1		pg/g	SW846 8290
Total PeCDD	19		pg/g	SW846 8290
Total HxCDD	490		pg/g	SW846 8290
Total HpCDD	5000		pg/g	SW846 8290
2,3,7,8-TCDD	1.1 (J)		pg/g	SW846 8290
1,2,3,7,8-PeCDD	10		pg/g	SW846 8290
1,2,3,4,7,8-HxCDD	29		pg/g	SW846 8290
1,2,3,6,7,8-HxCDD	120		pg/g	SW846 8290
1,2,3,7,8,9-HxCDD	74		pg/g	SW846 8290
1,2,3,4,6,7,8-HpCDD	3200 E		pg/g	SW846 8290
OCDD	23000 E		pg/g	SW846 8290
2,3,7,8-TCDF	ND CON	0.50	pg/g	SW846 8290
1,2,3,7,8-PeCDF	3.9 (J)		pg/g	SW846 8290
2,3,4,7,8-PeCDF	3.1 (J)		pg/g	SW846 8290
1,2,3,4,7,8-HxCDF	18		pg/g	SW846 8290
1,2,3,6,7,8-HxCDF	12		pg/g	SW846 8290
2,3,4,6,7,8-HxCDF	7.1		pg/g	SW846 8290
1,2,3,7,8,9-HxCDF	ND	1.3	pg/g	SW846 8290
1,2,3,4,6,7,8-HpCDF	510		pg/g	SW846 8290
1,2,3,4,7,8,9-HpCDF	37		pg/g	SW846 8290
OCDF	1900		pg/g	SW846 8290

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	39 *	(40 - 135)
13C-1,2,3,7,8-PeCDD	31 *	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	25 *	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	30 *	(40 - 135)
13C-OCDD	35 *	(40 - 135)
13C-2,3,7,8-TCDF	34 *	(40 - 135)
13C-1,2,3,7,8-PeCDF	36 *	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	26 *	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	31 *	(40 - 135)

(Continued on next page)

STL BUFFALO

Client Sample ID: SS-1

Trace Level Organic Compounds

Lot-Sample #...: G1K240118-001 Work Order #...: EPF2V1AC Matrix.....: SOLID

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than the reporting limit.

E Estimated result. Result concentration exceeds the calibration range.

CON Confirmation analysis.

* Surrogate recovery is outside stated control limits.

STL BUFFALO

Client Sample ID: SS-2

Trace Level Organic Compounds

Lot-Sample #...: G1K240118-002 Work Order #...: EPF2W1AC Matrix.....: SOLID
Date Sampled...: 11/16/01 Date Received..: 11/23/01
Prep Data.....: 12/03/01 Analysis Date..: 12/14/01
Prep Batch #...: 1337482
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Total TCDF	0.92		pg/g	SW846 8290
Total PeCDF	31		pg/g	SW846 8290
Total HxCDF	430		pg/g	SW846 8290
Total HpCDF	1500		pg/g	SW846 8290
Total TCDD	1.6		pg/g	SW846 8290
Total PeCDD	8.3		pg/g	SW846 8290
Total HxCDD	360		pg/g	SW846 8290
Total HpCDD	3300		pg/g	SW846 8290
2,3,7,8-TCDD	0.83 (J)		pg/g	SW846 8290
1,2,3,7,8-PeCDD	8.3		pg/g	SW846 8290
1,2,3,4,7,8-HxCDD	21 J		pg/g	SW846 8290
1,2,3,6,7,8-HxCDD	99		pg/g	SW846 8290
1,2,3,7,8,9-HxCDD	56 J		pg/g	SW846 8290
1,2,3,4,6,7,8-HpCDD	2100		pg/g	SW846 8290
OCDD	13000 E J		pg/g	SW846 8290
2,3,7,8-TCDF	0.92 (J) CON		pg/g	SW846 8290
1,2,3,7,8-PeCDF	5.2 (J)		pg/g	SW846 8290
2,3,4,7,8-PeCDF	ND	2.9	pg/g	SW846 8290
1,2,3,4,7,8-HxCDF	21		pg/g	SW846 8290
1,2,3,6,7,8-HxCDF	12		pg/g	SW846 8290
2,3,4,6,7,8-HxCDF	8.3		pg/g	SW846 8290
1,2,3,7,8,9-HxCDF	ND	2.0	pg/g	SW846 8290
1,2,3,4,6,7,8-HpCDF	370		pg/g	SW846 8290
1,2,3,4,7,8,9-HpCDF	29		pg/g	SW846 8290
OCDF	1300		pg/g	SW846 8290

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	73	(40 - 135)
13C-1,2,3,7,8-PeCDD	82	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	61	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	92	(40 - 135)
13C-OCDD	110	(40 - 135)
13C-2,3,7,8-TCDF	76	(40 - 135)
13C-1,2,3,7,8-PeCDF	86	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	64	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	92	(40 - 135)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than the reporting limit.

E Estimated result. Result concentration exceeds the calibration range.

CON Confirmation analysis.

STL BUFFALO

Client Sample ID: SS-3

Trace Level Organic Compounds

Lot-Sample #...: G1K240118-003 Work Order #...: EPF2X1AC Matrix.....: SOLID
Date Sampled...: 11/16/01 Date Received..: 11/23/01
Prep Date.....: 12/03/01 Analysis Date..: 12/14/01
Prep Batch #...: 1337482
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Total TCDF	14		pg/g	SW846 8290
Total PeCDF	200		pg/g	SW846 8290
Total HxCDF	2200		pg/g	SW846 8290
Total HpCDF	7000		pg/g	SW846 8290
Total TCDD	8.6		pg/g	SW846 8290
Total PeCDD	83		pg/g	SW846 8290
Total HxCDD	1400		pg/g	SW846 8290
Total HpCDD	15000		pg/g	SW846 8290
2,3,7,8-TCDD	2.8		pg/g	SW846 8290
1,2,3,7,8-PeCDD	32		pg/g	SW846 8290
1,2,3,4,7,8-HxCDD	68 J		pg/g	SW846 8290
1,2,3,6,7,8-HxCDD	390		pg/g	SW846 8290
1,2,3,7,8,9-HxCDD	200 J		pg/g	SW846 8290
1,2,3,4,6,7,8-HpCDD	9300 E J		pg/g	SW846 8290
OCDD	58000 E J		pg/g	SW846 8290
2,3,7,8-TCDF	3.7 CON		pg/g	SW846 8290
1,2,3,7,8-PeCDF	25		pg/g	SW846 8290
2,3,4,7,8-PeCDF	15		pg/g	SW846 8290
1,2,3,4,7,8-HxCDF	100		pg/g	SW846 8290
1,2,3,6,7,8-HxCDF	57		pg/g	SW846 8290
2,3,4,6,7,8-HxCDF	45		pg/g	SW846 8290
1,2,3,7,8,9-HxCDF	7.9		pg/g	SW846 8290
1,2,3,4,6,7,8-HpCDF	1700		pg/g	SW846 8290
1,2,3,4,7,8,9-HpCDF	130		pg/g	SW846 8290
OCDF	6500 E J		pg/g	SW846 8290

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	73	(40 - 135)
13C-1,2,3,7,8-PeCDD	82	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	69	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	93	(40 - 135)
13C-OCDD	110	(40 - 135)
13C-2,3,7,8-TCDF	74	(40 - 135)
13C-1,2,3,7,8-PeCDF	84	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	64	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	97	(40 - 135)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

E Estimated result. Result concentration exceeds the calibration range.

CON Confirmation analysis.

STL BUFFALO

Client Sample ID: SS-4

Trace Level Organic Compounds

Lot-Sample #...: G1K240118-004 Work Order #...: EPF201AC Matrix.....: SOLID
Date Sampled...: 11/16/01 Date Received..: 11/23/01
Prep Date.....: 12/03/01 Analysis Date..: 12/14/01
Prep Batch #...: 1337482
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Total TCDF	37		pg/g	SW846 8290
Total PeCDF	590		pg/g	SW846 8290
Total HxCDF	6300		pg/g	SW846 8290
Total HpCDF	24000 J		pg/g	SW846 8290
Total TCDD	8.8		pg/g	SW846 8290
Total PeCDD	150		pg/g	SW846 8290
Total HxCDD	3700		pg/g	SW846 8290
Total HpCDD	47000		pg/g	SW846 8290
2,3,7,8-TCDD	3.5		pg/g	SW846 8290
1,2,3,7,8-PeCDD	56		pg/g	SW846 8290
1,2,3,4,7,8-HxCDD	180 J		pg/g	SW846 8290
1,2,3,6,7,8-HxCDD	1200		pg/g	SW846 8290
1,2,3,7,8,9-HxCDD	440 J		pg/g	SW846 8290
1,2,3,4,6,7,8-HpCDD	30000 D		pg/g	SW846 8290
OCDD	210000 D,E J		pg/g	SW846 8290
2,3,7,8-TCDF	11 CON		pg/g	SW846 8290
1,2,3,7,8-PeCDF	66		pg/g	SW846 8290
2,3,4,7,8-PeCDF	47		pg/g	SW846 8290
1,2,3,4,7,8-HxCDF	240		pg/g	SW846 8290
1,2,3,6,7,8-HxCDF	110		pg/g	SW846 8290
2,3,4,6,7,8-HxCDF	96		pg/g	SW846 8290
1,2,3,7,8,9-HxCDF	20		pg/g	SW846 8290
1,2,3,4,6,7,8-HpCDF	5300 D J		pg/g	SW846 8290
1,2,3,4,7,8,9-HpCDF	360 D J		pg/g	SW846 8290
OCDF	20000 D		pg/g	SW846 8290

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	69	(40 - 135)
13C-1,2,3,7,8-PeCDD	80	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	66	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	78	(40 - 135)
13C-OCDD	89	(40 - 135)
13C-2,3,7,8-TCDF	72	(40 - 135)
13C-1,2,3,7,8-PeCDF	84	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	68	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	67	(40 - 135)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

D Result was obtained from the analysis of a dilution.

E Estimated result. Result concentration exceeds the calibration range.

CON Confirmation analysis.

STL BUFFALO

Client Sample ID: SS-5

Trace Level Organic Compounds

Lot-Sample #...: G1K240118-005 Work Order #...: EPF211AD Matrix.....: SOLID
Date Sampled...: 11/16/01 Date Received..: 11/23/01
Prep Date.....: 12/31/01 Analysis Date..: 01/03/02
Prep Batch #...: 2002332
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
2,3,7,8-TCDD	ND	0.027	ng/g	SW846 8280
Total TCDD	ND	0.027	ng/g	SW846 8280
1,2,3,7,8-PeCDD	ND	0.48	ng/g	SW846 8280
Total PeCDD	ND	0.48	ng/g	SW846 8280
1,2,3,4,7,8-HxCDD	0.72 J		ng/g	SW846 8280
1,2,3,6,7,8-HxCDD	13 J		ng/g	SW846 8280
1,2,3,7,8,9-HxCDD	2.1 J		ng/g	SW846 8280
Total HxCDD	30 J		ng/g	SW846 8280
1,2,3,4,6,7,8-HpCDD	520 E J		ng/g	SW846 8280
Total HpCDD	730 J		ng/g	SW846 8280
OCDD	2500 E J		ng/g	SW846 8280
2,3,7,8-TCDF	ND	0.15	ng/g	SW846 8280
Total TCDF	ND	0.15	ng/g	SW846 8280
1,2,3,7,8-PeCDF	ND	0.34	ng/g	SW846 8280
2,3,4,7,8-PeCDF	ND	0.33	ng/g	SW846 8280
Total PeCDF	ND	0.59	ng/g	SW846 8280
1,2,3,4,7,8-HxCDF	1.2 J		ng/g	SW846 8280
1,2,3,6,7,8-HxCDF	ND	0.42	ng/g	SW846 8280
2,3,4,6,7,8-HxCDF	1.1 J		ng/g	SW846 8280
1,2,3,7,8,9-HxCDF	ND	0.14	ng/g	SW846 8280
Total HxCDF	47 J		ng/g	SW846 8280
1,2,3,4,6,7,8-HpCDF	50 E J		ng/g	SW846 8280
1,2,3,4,7,8,9-HpCDF	3.4 J		ng/g	SW846 8280
Total HpCDF	270 J		ng/g	SW846 8280
OCDF	450 E J		ng/g	SW846 8280

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	92	(40 - 120)
13C-2,3,7,8-TCDF	94	(40 - 120)
13C-1,2,3,6,7,8-HxCDD	106	(40 - 120)
13C-1,2,3,4,6,7,8-HpCDF	102	(40 - 120)
13C-OCDD	72	(40 - 120)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than the reporting limit.

E Estimated result. Result concentration exceeds the calibration range.

STL BUFFALO

Client Sample ID: SS-6

Trace Level Organic Compounds

Lot-Sample #...: G1K240118-006 Work Order #...: EPF221AD Matrix.....: SOLID
Date Sampled...: 11/16/01 Date Received..: 11/23/01
Prep Date.....: 12/31/01 Analysis Date..: 01/03/02
Prep Batch #...: 2002332
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
2,3,7,8-TCDD	ND	0.053	ng/g	SW846 8280
Total TCDD	ND	0.053	ng/g	SW846 8280
1,2,3,7,8-PeCDD	ND	0.51	ng/g	SW846 8280
Total PeCDD	ND	0.51	ng/g	SW846 8280
1,2,3,4,7,8-HxCDD	0.70 (J)		ng/g	SW846 8280
1,2,3,6,7,8-HxCDD	7.2 J		ng/g	SW846 8280
1,2,3,7,8,9-HxCDD	1.8 J		ng/g	SW846 8280
Total HxCDD	19 J		ng/g	SW846 8280
1,2,3,4,6,7,8-HpCDD	370 E J		ng/g	SW846 8280
Total HpCDD	560 J		ng/g	SW846 8280
OCDD	1700 E J		ng/g	SW846 8280
2,3,7,8-TCDF	ND	0.29	ng/g	SW846 8280
Total TCDF	ND	0.29	ng/g	SW846 8280
1,2,3,7,8-PeCDF	ND	0.18	ng/g	SW846 8280
2,3,4,7,8-PeCDF	ND	0.17	ng/g	SW846 8280
Total PeCDF	2.1 J		ng/g	SW846 8280
1,2,3,4,7,8-HxCDF	0.78 (J)		ng/g	SW846 8280
1,2,3,6,7,8-HxCDF	ND	0.29	ng/g	SW846 8280
2,3,4,6,7,8-HxCDF	0.78 (J)		ng/g	SW846 8280
1,2,3,7,8,9-HxCDF	ND	0.067	ng/g	SW846 8280
Total HxCDF	25 J		ng/g	SW846 8280
1,2,3,4,6,7,8-HpCDF	27		ng/g	SW846 8280
1,2,3,4,7,8,9-HpCDF	2.0		ng/g	SW846 8280
Total HpCDF	130		ng/g	SW846 8280
OCDF	100 E J		ng/g	SW846 8280

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	89	(40 - 120)
13C-2,3,7,8-TCDF	89	(40 - 120)
13C-1,2,3,6,7,8-HxCDD	94	(40 - 120)
13C-1,2,3,4,6,7,8-HpCDF	100	(40 - 120)
13C-OCDD	190 *	(40 - 120)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than the reporting limit.

E Estimated result. Result concentration exceeds the calibration range.

* Surrogate recovery is outside stated control limits.

STL BUFFALO

Client Sample ID: SS-7

Trace Level Organic Compounds

Lot-Sample #...: G1K240118-007 Work Order #...: EPF231AC Matrix.....: SOLID
Date Sampled...: 11/16/01 Date Received..: 11/23/01
Prep Date.....: 12/03/01 Analysis Date..: 12/14/01
Prep Batch #...: 1337482
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
Total TCDF	21		pg/g	SW846 8290
Total PeCDF	340		pg/g	SW846 8290
Total HxCDF	7900		pg/g	SW846 8290
Total HpCDF	53000		pg/g	SW846 8290
Total TCDD	15		pg/g	SW846 8290
Total PeCDD	200		pg/g	SW846 8290
Total HxCDD	4100		pg/g	SW846 8290
Total HpCDD	44000		pg/g	SW846 8290
2,3,7,8-TCDD	6.5		pg/g	SW846 8290
1,2,3,7,8-PeCDD	100		pg/g	SW846 8290
1,2,3,4,7,8-HxCDD	250 J		pg/g	SW846 8290
1,2,3,6,7,8-HxCDD	1300		pg/g	SW846 8290
1,2,3,7,8,9-HxCDD	590 J		pg/g	SW846 8290
1,2,3,4,6,7,8-HpCDD	28000 D		pg/g	SW846 8290
OCDD	170000 D		pg/g	SW846 8290
2,3,7,8-TCDF	4.3 CON		pg/g	SW846 8290
1,2,3,7,8-PeCDF	31		pg/g	SW846 8290
2,3,4,7,8-PeCDF	24		pg/g	SW846 8290
1,2,3,4,7,8-HxCDF	400		pg/g	SW846 8290
1,2,3,6,7,8-HxCDF	160		pg/g	SW846 8290
2,3,4,6,7,8-HxCDF	110		pg/g	SW846 8290
1,2,3,7,8,9-HxCDF	9.5		pg/g	SW846 8290
1,2,3,4,6,7,8-HpCDF	12000 D		pg/g	SW846 8290
1,2,3,4,7,8,9-HpCDF	780 D		pg/g	SW846 8290
OCDF	53000 D		pg/g	SW846 8290

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	73	(40 - 135)
13C-1,2,3,7,8-PeCDD	90	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	62	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	99	(40 - 135)
13C-OCDD	124	(40 - 135)
13C-2,3,7,8-TCDF	77	(40 - 135)
13C-1,2,3,7,8-PeCDF	88	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	64	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	87	(40 - 135)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

D Result was obtained from the analysis of a dilution.

CON Confirmation analysis.

STL BUFFALO

Client Sample ID: SS-8

Trace Level Organic Compounds

Lot-Sample #...: G1K240118-008 Work Order #...: EPF241AD Matrix.....: SOLID
Date Sampled...: 11/16/01 Date Received..: 11/23/01
Prep Date.....: 12/31/01 Analysis Date..: 01/03/02
Prep Batch #...: 2002332
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
2,3,7,8-TCDD	ND	0.037	ng/g	SW846 8280
Total TCDD	ND	0.037	ng/g	SW846 8280
1,2,3,7,8-PeCDD	ND	0.49	ng/g	SW846 8280
Total PeCDD	ND	0.49	ng/g	SW846 8280
1,2,3,4,7,8-HxCDD	ND	0.62	ng/g	SW846 8280
1,2,3,6,7,8-HxCDD	3.7 J		ng/g	SW846 8280
1,2,3,7,8,9-HxCDD	1.4 J		ng/g	SW846 8280
Total HxCDD	10 J		ng/g	SW846 8280
1,2,3,4,6,7,8-HpCDD	150 E J		ng/g	SW846 8280
Total HpCDD	220 J		ng/g	SW846 8280
OCDD	600 E J		ng/g	SW846 8280
2,3,7,8-TCDF	ND	0.087	ng/g	SW846 8280
Total TCDF	ND	0.087	ng/g	SW846 8280
1,2,3,7,8-PeCDF	ND	0.35	ng/g	SW846 8280
2,3,4,7,8-PeCDF	ND	0.35	ng/g	SW846 8280
Total PeCDF	ND	0.75	ng/g	SW846 8280
1,2,3,4,7,8-HxCDF	ND	0.55	ng/g	SW846 8280
1,2,3,6,7,8-HxCDF	ND	0.29	ng/g	SW846 8280
2,3,4,6,7,8-HxCDF	ND	0.46	ng/g	SW846 8280
1,2,3,7,8,9-HxCDF	ND	0.12	ng/g	SW846 8280
Total HxCDF	14 J		ng/g	SW846 8280
1,2,3,4,6,7,8-HpCDF	16 J		ng/g	SW846 8280
1,2,3,4,7,8,9-HpCDF	0.99 (J)		ng/g	SW846 8280
Total HpCDF	66 J		ng/g	SW846 8280
OCDF	56 E J		ng/g	SW846 8280

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	96	(40 - 120)
13C-2,3,7,8-TCDF	96	(40 - 120)
13C-1,2,3,6,7,8-HxCDD	104	(40 - 120)
13C-1,2,3,4,6,7,8-HpCDF	113	(40 - 120)
13C-OCDD	183 *	(40 - 120)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

E Estimated result. Result concentration exceeds the calibration range.

J Estimated result. Result is less than the reporting limit.

* Surrogate recovery is outside stated control limits.

STL BUFFALO

Client Sample ID: SS-9

Trace Level Organic Compounds

Lot-Sample #...: G1K240118-009 Work Order #...: EPF251AD Matrix.....: SOLID
Date Sampled...: 11/16/01 Date Received..: 11/23/01
Prep Date.....: 12/31/01 Analysis Date..: 01/03/02
Prep Batch #...: 2002332
Dilution Factor: 1

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
2,3,7,8-TCDD	ND	0.050	ng/g	SW846 8280
Total TCDD	ND	0.050	ng/g	SW846 8280
1,2,3,7,8-PeCDD	ND	0.76	ng/g	SW846 8280
Total PeCDD	ND	0.76	ng/g	SW846 8280
1,2,3,4,7,8-HxCDD	1.1 J		ng/g	SW846 8280
1,2,3,6,7,8-HxCDD	5.8 J		ng/g	SW846 8280
1,2,3,7,8,9-HxCDD	2.5 J		ng/g	SW846 8280
Total HxCDD	18 J		ng/g	SW846 8280
1,2,3,4,6,7,8-HpCDD	230 E J		ng/g	SW846 8280
Total HpCDD	350 J		ng/g	SW846 8280
OCDD	870 E J		ng/g	SW846 8280
2,3,7,8-TCDF	ND	0.13	ng/g	SW846 8280
Total TCDF	ND	0.13	ng/g	SW846 8280
1,2,3,7,8-PeCDF	ND	0.40	ng/g	SW846 8280
2,3,4,7,8-PeCDF	ND	0.39	ng/g	SW846 8280
Total PeCDF	1.3 J		ng/g	SW846 8280
1,2,3,4,7,8-HxCDF	0.87 J		ng/g	SW846 8280
1,2,3,6,7,8-HxCDF	ND	0.49	ng/g	SW846 8280
2,3,4,6,7,8-HxCDF	1.0 J		ng/g	SW846 8280
1,2,3,7,8,9-HxCDF	ND	0.17	ng/g	SW846 8280
Total HxCDF	24 J		ng/g	SW846 8280
1,2,3,4,6,7,8-HpCDF	25 J		ng/g	SW846 8280
1,2,3,4,7,8,9-HpCDF	1.6 J		ng/g	SW846 8280
Total HpCDF	100 J		ng/g	SW846 8280
OCDF	81 E J		ng/g	SW846 8280

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	84	(40 - 120)
13C-2,3,7,8-TCDF	79	(40 - 120)
13C-1,2,3,6,7,8-HxCDD	88	(40 - 120)
13C-1,2,3,4,6,7,8-HpCDF	100	(40 - 120)
13C-OCDD	171 *	(40 - 120)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than the reporting limit.

E Estimated result. Result concentration exceeds the calibration range.

* Surrogate recovery is outside stated control limits.