SITE INVESTIGATION/REMEDIAL ALTERNATIVES (SI/RA) REPORT

Former Brown Manufacturing Site

NYSDEC Brownfields Project No. B-00024-7

101 Chester Street
Syracuse, New York

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Prepared For:

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1.0 INTRODUCTION

1.1 Site Location and Description

The Former Brown Manufacturing Site is presently a vacant lot (<1 acre) located at 101 Chester Street in the City of Syracuse situated at the southeast corner of the intersection of Chester Street and Bellevue Avenue (see Figure 1-1). The site is bordered to the north by Bellevue Avenue, to the south by residential properties along Chester Street, to the east by residential properties along Huron Street, and to the west by Chester Street (see Figure 1-2). The site is a generally flat parcel of land partially covered with grass, concrete, stone, and asphalt. The northeast portion of the site is surfaced with a combination of concrete, stone, and asphalt. A row of trees and a chain-link fence are located along the east property boundary.

1.2 Site Background and History

Following a fire which occurred at the site on August 21, 1981, approximately 100 drums of waste oil, a waste oil disposal pit, a quenching trough (open-ended, underground storage tank), and a ruptured electrical transformer were identified at the site. Testing performed at the site in August and September of 1981 identified the presence of polychlorinated biphenyl (PCB) waste oils and PCB-contaminated concrete and soil. In October 1981, CECOS International, an environmental remediation contractor, apparently removed and disposed of the drums of PCB waste oil, the PCB waste oil/sludge in the disposal pit, the quenching trough and its contents, the PCB-contaminated concrete and soil, and the ruptured electrical transformer. Beardsley Design Associates' (BDA) review of newspaper articles and correspondence, as well as interviews with persons knowledgeable with the events that occurred at the site in 1981, indicated that no post-remediation PCB soil testing was performed at the site to assess the effectiveness of the remediation activities that were conducted.

Furthermore, based on BDA's review/interviews, a waste oil disposal pit may have been located in the "backyard" of the 110 Huron Street property (east of and adjacent to the site)'. A surface depression was observed in the backyard of the 110 Huron Street property containing settled backfill that could have been the former location of the 12' x 12' waste oil disposal pit which was described in the correspondence and newspaper articles reviewed by BDA.

In addition, real estate information reviewed by BDA indicated that the site included the 110 Huron Street property until 1988, at which time the 110 Huron Street property was obtained by the City of Syracuse by tax deed and then sold as a separate parcel. BDA reviewed newspaper articles obtained from the City of Syracuse Office of the Corporation Counsel. Relevant information contained in the newspaper articles is summarized below.

Date	Source	Summary of Relevant Information
8/22/81	Herald-Journal	Fire occurred at abandoned Brown Corporation factory located at 213 Bellevue Avenue, which previously manufactured automobile parts.
9/15/81	Post-Standard	One of 80 barrels found at the site exhibited 5,000 ppm of PCBs.
10/6/81	Post-Standard	Henry Brown owned the factory until 1968; Truck axles, gears, and other parts were manufactured at the factory that occupied the site; Liquids sampled from a shallow waste oil disposal pit were found to contain 4,800 ppm PCB; Officials found an industrial capacitor at the site that was contaminated with PCBs.
10/6/81	Post-Standard	Samples of cinderblock fragments and oil from a quenching trough showed PCB concentrations between 100 ppm and 200 ppm; A 12' x 12' pit at the site was apparently used for disposal of waste oil; A soil sample from the yard at 114 Huron Street showed no PCBs.
10/23/81	Post-Standard	Scheduled for removal and disposal are several yards of soil in a disposal pit, a large quenching trough, several contaminated cinderblocks, and about 100 barrels of oil.
10/24/81	Post-Standard	The contract for removal and disposal of the PCB contamination will be carried out by CECOS International and is scheduled to begin 10/26/81.
10/27/81	Herald-Journal	About 100 barrels of waste will be solidified for transport to a secure landfill in Niagara Falls; Soil will be excavated from the waste oil disposal pit at the rear of the building that nearly borders a residence, but has been fenced off.
10/29/81	Herald-Journal	Excavation and testing will continue until non-contaminated soil is identified or until groundwater is encountered; The PCB waste oil would only seep slowly through the earth and is not water soluble; The possibility exists that oil contamination may have entered the water table.
10/29/81	Post-Standard	The walls of the waste oil disposal pit may have cracked and some of the contaminated waste could have leaked into the soil.
10/30/81	Post-Standard	Workers removed ±20 cubic yards of contaminated soil from

		the waste oil disposal pit; DEC will have to test the waste oil disposal pit after it is cleaned to see if any of the waste oils leached into the soil.
11/3/81	Post-Standard	Re-testing of the area is contingent on whether there is money left once CECOS completes the removal and disposal of the hazardous material; If the money runs out, the pit won't get tested and neither will the soil where the barrels were located until additional money is made available.
Unknown	Post-Standard	Following the cleanup activities, four soil samples collected from the former waste oil disposal pit area yielded PCB concentrations below 50 ppm, and two soil samples collected from the ground where 80 barrels of waste oil had been stored yielded PCB concentrations of 93,000 ppm and 160 ppm; The DEC indicated that additional soil samples should be collected to determine how deep the PCBs have penetrated into the property subsurface soils.

BDA reviewed reports obtained from the City of Syracuse Office of the Corporation Counsel. Relevant information contained in the reports is summarized below.

Date	Report	Summary of Relevant Information
8/21/81	Fire Investigation Report	Fire occurred at the structure that is reportedly owned by Morris Goldfeld; Site has been vacant for approximately 10 years; Fire appears to have been set intentionally using a flammable liquid; Entire structure was damaged.
9/11/81	Galson Report	Report to John Fietze at the NYSDOT showing PCB results for 49 samples collected from the site on 8/24/81; Samples included sludge, sediment, and oil samples; Results ranged from <5 ppm to 4,800 ppm PCB.
10/14/81	Galson Report	Report to John Fietze at the NYSDOT showing PCB results for a soil sample collected from 114 Huron Street, and an oil sample and a sludge sample collected from the site; The soil sample collected from 114 Huron Street contained <0.1 ppm PCB, the oil sample contained 224 ppm PCB, and the sludge sample 117 ppm PCB.
11/5/81	O'Brien & Gere Report	Report to John Fietze at the NYSDOT showing PCB results for 45 samples of waste oil collected from drums at the site on 9/17/81; PCBs were only detected in one drum (Drum 43), 7 ppm of PCB Aroclor 1254.

Based on BDA's review of the newspaper articles and reports as summarized above, the following persons were interviewed to obtain new information or to confirm existing information about the about the events which occurred at the site:

Person Interviewed	Results of Interview
John Corbett, Former Fire Investigator	Mr. Corbett recalled 1981 fire and confirmed the location of the former building and the location of drums/barrels; He could not recall the exact location of waste oil disposal pit, but indicated that it was located somewhere behind the building, on the east side of the site.
Richard Brickwedde, Esq., Former DEC Attorney	Mr. Brickwedde recalled that the drums/barrels and area of contamination were located behind (east) the former building; to the best of his recollection the waste oil disposal pit was located on the rear (west side) of an adjacent property located on Huron Street.
Thomas Suozzo, DEC Engineer	Mr. Suozzo could not recall what became of the site after the initial clean-up work was completed; In addition, he was not aware of any post-remedial soil sampling or testing conducted at the site, and stated that residual PCB contamination could still remain in subsurface soils.

1.3 Topography and Drainage

A United States Geologic Survey (USGS) map including the site (Syracuse West, NY, Photo revised 1978) indicated that the site is at an elevation of ±400 feet. Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps indicate that the site is not located within or immediately adjacent to a 100-year or 500-year flood plain. BDA's review of USGS maps, as well as our observation of the site and surrounding areas, suggest that groundwater flows in a south/southeasterly direction towards Onondaga Creek which is ±600 feet from the site.

1.4 Geology and Hydrogeology

1.4.1 Regional Geologic Setting

Review of surficial geologic mapping indicates that the unconsolidated soils in the vicinity of the site consist of a thin layer of lacustrine silt and clay, underlain by glacial till. The thickness of these types of unconsolidated deposits is typically variable in the immediate vicinity of the City. The site is located near the border of two (2) physiogeographic provinces within New York State - the Ontario Lowlands to the north and the Appalachian Uplands to the south. The Ontario Lowlands slope toward the north and represent the southern extension of the Lake Ontario drainage basin, while the northern margin of the Appalachian Uplands includes the Finger Lakes troughs. The geology of the area in which the site is located consists of bedrock and overburden deposits. Bedrock in Central New

York is dominated by flat-lying Sulurian-age and Devonian-age sedimentary rocks which exhibit a slight southerly dip of approximately 100 feet per mile. The Onondaga Lake Valley is underlain by the Vermon Formation which is a soft shale. The Vernon Formation is overlain by the Syracuse and Camillus Formations. The Syracuse Formation consists of shale, dolostones, gypsum, and rock salt. The Camillus Formation consists of soft, dolomitic shale and thin, gypsiferous shale. The bedrock in the vicinity of the site consists of the Camillus Formation.

The pre-glacial bedrock beneath the site was modified by overriding Pleistocene glaciers. Deepening of the Onondaga Valley by glacial ice, in manner similar to that which formed the Finger Lakes and surrounding valleys, produced a bedrock basin extending below sea level. Glacial sculpting of the area has produced a pronounced north-northwest to south-southeast orientation of hills and valleys.

This orientation is partly the result of erosion of the underlying bedrock by glacial ice and till deposits into elliptical hills known as drumlins, which are predominantly composed of till. Till is typically a compact, unsorted, and poorly stratified mixture of sands, silt, clay, gravel, and boulders deposited by glacial ice. A layer of till 10 to 15 feet thick overlies bedrock in the area of the site.

During glacial retreat in the Onondaga Valley, pre-glacial drainage to the north was blocked by an ice front producing a proglacial lake in which significant quantities of glaciolacustrine sediments were deposited. Drainage in adjacent north-south valleys, to the east and west of the Onondaga Valley, was also blocked by the ice front producing a series of lakes standing against the ice. As the level of the lakes rose, they utilized the lowest available drainage pathway which was predominantly to the south, over relatively high spillways or to the east or west over inter-valley divides. The large volumes of melt-water from the ice, spilling from one basin to another, cut numerous east-west trending channels into the valley divides. With the decay of the ice, lower spillways opened resulting in drainage of the proglacial lakes and the establishment of the existing system of lakes and surface drainage in the area. During the time the proglacial lakes existed, they accumulated large volumes of sediment washed out from the ice and from the channels crossing the valley divides. These sediments consist primarily of fine sand and silt. Gravel, sand, and clay, however, are also present in some locations. Surficial soil deposits near the site have been mapped as lacustrine silt and clay, likely deposited as a result of the proglacial lakes.

1.4.2 Regional Hydrogeologic Setting

The site is located within the Onondaga Lake drainage basin, which covers approximately 230 square miles and is part of the larger Eastern Oswego River drainage basin, which covers approximately 2,500 square miles. Surface water drains north from the Onondaga Lake drainage basin into the Seneca River, into the Oswego River, and then into Lake Ontario. Surface water in the area of the site is influenced by Onondaga Lake and its tributaries. The tributary nearest to the site is Onondaga Creek, which is located ±600 feet south/southeast from the site. Onondaga Creek, which flows from south to north through

the Onondaga Valley and the City of Syracuse into Onondaga Lake, drains a watershed of approximately 100 square miles and has an average annual flow rate of approximately 190 cubic feet per second (cfs), before it discharges into the south end of Onondaga Lake. Onondaga Creek has been relocated from its former discharge point which was once located at the southeast corner of Onondaga Lake.

The geology of the Onondaga Valley has a significant impact on the movement of groundwater in the valley and its tributaries. Groundwater flow in Onondaga Valley and its tributaries is primarily driven by topography. Water flowing from the valley divides into the surface and groundwater systems within each tributary valley. Surface and groundwater then flow towards Onondaga Lake. The flow patterns, velocities, and the groundwater/surface water ratio in each tributary valley are dependent on the local geologic conditions within each valley. The site does not appear to directly overlie any aquifers and does not appear to be located near any primary or principal water supply aquifers as classified by the NYSDEC. A surficial aquifer is located approximately five miles south of the site.

Regional bedrock geologic mapping indicates that bedrock underlying the site consists of the Syracuse Formation, of Upper Silurian Age, which includes dolostone, shale, gypsum, and salt stratigraphic units. Consistent with the topographic setting of the site, shallow groundwater flow in the area of the site would be perceived to flow across the site from the south to the north, in a direction toward Onondaga Creek. Groundwater within the deeper bedrock generally occurs within fractures, joint sets, and bedding planes which are commonly enlarged due to dissolution of carbonates and evaporites. There is reportedly no private or municipal groundwater wells used to supply potable water within a four-mile radius of the site. The residents within a four-mile radius of the site receive their domestic water from municipal service connections supplied by the City of Syracuse Water System, the Onondaga County Water Authority, or the Metropolitan Water Board. These agencies receive their water from surface water intakes on Lakes Otisco, Skaneateles, and/or Ontario.

1.5 Review of Existing Data

1.5.1 Soil Sampling Conducted Following 1981 Fire

BDA reviewed a Post-Standard newspaper article (date unknown) which indicated that, following the cleanup activities (circa November 1981), six soil samples were collected from the site. Four soil samples collected from the former waste oil disposal pit area exhibited PCB concentrations below 50 ppm, and two soil samples collected from the area where 80 barrels of waste oil had been stored yielded PCB concentrations of 93,000 ppm and 160 ppm. From the available information reviewed by BDA, there was no indication of other "post-remediation" soil sampling or testing conducted at the site.

1.5.2 Soil Sampling Conducted by Beardsley Design

Under separate contract with the City of Syracuse, BDA collected composite soil samples from the site on October 25, 1995 (see Figure 1-3). The composite soil samples were submitted for PCB, polychlorinated dibenzo-dioxin (PCDDs), and polychlorinated dibenzo-furan (PCDFs) analysis. The soil sampling was based on EPA Document 560/5-85-026 ("Verification of PCB Spill Cleanup by Sampling & Analysis"), which is a statistically-based method developed for determining if PCB spills have been properly remediated. This method typically requires samples to be collected from a known PCB spill area, including adjacent areas around the PCB spill area. The soil sampling methodology recommended by EPA Document 560/5-85-026 was slightly modified, however, to include sampling of soil from the subject property only. Thus, no soil sampling was conducted at adjacent properties. As a result, the modified soil sampling conducted by BDA in October 1995 was performed only for the purpose of "screening" surficial soils at the site for PCBs, PCDDs, and PCDFs. The soil sampling performed by BDA included the collection of soil samples from 19 locations at the site. Each soil sample was collected from a depth of approximately six inches below using a hand auger. Five composite samples were formed from the soil samples collected and each composite sample was analyzed as follows:

Composite	Samples	Analysis
1	1, 2, 15, 16, 17	PCBs
2	3, 4, 8, 9, 14	PCBs
3	10, 11, 12, 13	PCBs
4	5, 6, 7, 18, 19	PCBs
5	1, 2, 15, 16, 17	PCDDs, PCDFs

Upstate Laboratories, Inc. analyzed Composite Samples 1, 2, 3, and 4 for PCBs (Aroclors 1016, 1221, 1232, 1242, 1248, 1254, and 1260) using EPA Method 8080. The PCB laboratory analysis results for Composite Samples 1, 2, 3, and 4 are summarized below.

Summary of PCB Aroclor Analyses

Composite	Samples	1016	1221	1232	1242	1248	1254	1260
1	1, 2, 15, 16, 17	ND	ND	ND	ND	ND	ND	ND
2	3, 4, 8, 9, 14	ND	ND	ND	ND	3 ppm	ND	ND
3	10, 11, 12, 13	ND	ND	ND	ND	ND	ND	ND
4	5, 6, 7, 18, 19	ND	ND	ND	ND	ND	ND	ND

Note: ND = Not Detected

As indicated, PCBs were detected in composite soil sample #2 that was formed from five individual soil samples collected from the south portion of the site in an area which appears to have been occupied by the south portion of the former Brown Manufacturing Building (west of residential lots located at 112 Huron Street and 114 Huron Street). Triangle Laboratories, Inc. analyzed composite soil sample #5 for PCDDs and PCDFs using EPA Method 8280. The PCDD and PCDF

laboratory analysis results for composite soil sample #5 are summarized below.

Summary of PCDD/PCDF Analyses

Composite	Samples	TCDD	PeCDD	HxCDD	HpCDD	TCDF	PeCDF	HxCDF	HPCDF
5	1, 2, 15, 16, 17	ND	ND	ND	ND	ND	ND	ND	ND
MDLs		<0.168	<1.17	<0.252	<0.337	<0.144	<0.685	<0.192	<0.0361

Note: MDLs = Method Detection Limits

As indicated, no PCDDs or PCDFs were detected in the composite soil sample #5 above the MDLs shown.

Following the 1981 fire at the site, the waste oil disposal pit, was apparently excavated and backfilled. However, no post-remediation soil sampling/testing was conducted to determine if residual PCBs were present in the subsurface soils at the site and/or at adjacent properties. Based on previous use of the site for the manufacture of automobile parts, the existence of PCB wastes/contamination following the 1981 fire at the site, and the presence of PCBs identified in the composite soil sample #2, it was interpreted that soil and/or groundwater at the site may be contaminated with PCBs, metals, and/or petroleum compounds.

Section 2.0 discusses Site Investigation activities that were performed at the site, including the collection and analysis of soil and groundwater samples, to assess the nature and extent of contamination that exists at the site. The soil and groundwater samples collected were analyzed for PCBs, Target Compound List (TCL) volatile organic compounds (VOCs), TCL semi-volatile organic compounds (SVOCs), and Target Analyte List (TAL) metals.

1.6 SI/RA Approach

Site Investigations

Initial Site Investigation (SI) efforts included the completion of site reconnaissance efforts to identify obvious areas of environmental concern at the site. Initial (Phase 1) site investigation efforts included the completion of a series of shallow hand borings (HB) within the area identified as NYSDOH Hotspot. A series of equally spaced Geoprobe borings (GP) were then completed to characterize subsurface conditions at the site property. A series of Phase-1 subsurface test trenches (T) were then completed within specific site areas where subsurface contamination was anticipated or encountered during the completion of initial site reconnaissance and Geoprobe boring efforts. Groundwater monitoring wells (MW) were installed at five locations near the site perimeter and former building foundation to assess potential impacts to the shallow groundwaters proximate to the site that may have occurred as a result of previous site operations.

After review and interpretation of initial (Phase 1) Site Investigation field and analytical data, a series of supplemental Phase-2A (on-site) test trenches were completed within the site property to identify or confirm the extent of potential contamination previously identified. In an effort to identify potential adjacent off-site contamination impacts, a series of Phase 2B (off-site) test

trench excavations were completed at adjacent residential properties. As part of the SI, media samples were collected from the hand borings, Geoprobe borings, subsurface test trenches, and groundwater monitoring wells for laboratory analysis.

After receipt of laboratory data reports, a final data usability review was performed to confirm the validity of the data. The laboratory data results were compared to applicable NYSDEC standards and recommended soil cleanup objectives and were also utilized to prepare a site-specific qualitative human health risk assessment. The results of site reconnaissance, field investigations, media sampling, laboratory analysis, data usability review, and qualitative human health risk assessment were compiled and interpreted within this Site Investigation Report.

Development of Remedial Alternatives

As SI laboratory data reports were received, and areas of environmental concern for the site were identified, remedial alternative development efforts were concurrently initiated. As the first effort for this task, remedial action objectives, which specify remediation goals in terms of contaminants identified, media of concern, and potential exposure pathways, were identified, after which potential general remedial response actions, such as treatment, containment, excavation, extraction, disposal, and institutional actions, were identified. After listing applicable general response actions, suitable response action technologies for the remediation of contaminated media were identified.

The respective response action technologies were then assembled into remedial alternatives that were evaluated and screened based upon criteria including effectiveness (long term and short term), reliability, implementability, and cost. Upon completion of remedial alternative screening task, a detailed remedial alternative evaluation was conducted. In general, the alternatives were evaluated in accordance with specific criteria to determine a cost-effective and protective remedy.

The NYSDEC will subsequently evaluate the remedial alternatives based on community acceptance. The results of the remedial alternative development and evaluation previously mentioned have been compiled within the Remedial Alternative Report section of this SI/RAR.

2.0 SITE INVESTIGATION ACTIVITIES AND METHODOLOGIES

The primary task of the Site Investigation involved site characterization. Site characterization included activities to determine the nature and extent of contamination at the site. For this project, Site Characterization included: 1) the collection and assessment of existing data; 2) subcontractor procurement; 3) the completion of field investigations; 4) the completion of a qualitative human health risk assessment, and 5) SI Report Preparation.

2.1 Field Investigations

The following field investigations were completed as part of the Site Investigation to determine the nature and extent of contamination at the site.

2.1.1 Preliminary Site Reconnaissance

A preliminary site reconnaissance was completed in an effort to identify obvious areas of environmental concern at the site. During the completion of preliminary site reconnaissance efforts, the foundation-slab remnants of former buildings were identified at the site. In general, the site was observed to be covered with mixture of grass, concrete, stone and asphalt. The northeast portion of the site is surfaced with a combination of concrete, stone and asphalt.

2.1.2 Phase 1 Subsurface Soil Investigations

In an effort to identify the general location of existing USTs, pipelines, and/or general evidence of contaminant releases at the site, a series of phased subsurface investigations were completed at the site. On July 20, 1998, C & H personnel completed 10 preliminary hand borings (HB-1 through HB-10) within the "NYSDOH Hot Spot area" in an effort to characterize shallow subsurface soil contamination at the site. During the completion of the hand borings, soil samples were routinely collected for total organic vapor screening utilizing a photoionization detector (PID) and PCB Immunoassay testing. A separate soil sample was also collected from hand boring HB-9 for PCBs (EPA Method 8080), volatile organic compounds (EPA Method 8240), semi-volatile organic compounds (EPA Method 8270), and TAL metals (CLP Method 200.7) analyses.

On July 21 and 22, 1998, personnel from BDA and Lyon Drilling mobilized to the site to complete 27 Geoprobe soil borings. During the completion of subsurface soil borings, continuous sampling was completed as a means to characterize subsurface soils at the site.

Soil samples retrieved as part of this effort were field screened for the presence of volatile organic compounds, using a Thermo-Environmental (PID). Separate subsurface soil samples were collected from boring locations GP-2, GP-5, GP-8, GP-13, GP-16. GP-17, and GP-25 for PCB (EPA Method 8080), volatile organic compound (EPA Method 8240), semi-volatile organic compound (EPA Method 8270), and TAL metals (CLP Method 200.7) analyses.

On July 30, and 31, 1998, a total of six (Phase-1) subsurface test trench excavations were completed at the property utilizing a rubber wheeled backhoe. During the completion of the test trench excavations, soil samples were routinely collected for total organic vapor screening, utilizing a PID. Separate subsurface soil samples were collected from test trench excavations T-1, T-2, T-4, T-5, and T-6 for PCB (EPA Method 8080), volatile organic compound (EPA Method 8240), semi-volatile organic compound (EPA Method 8270), and TAL metals (CLP Method 200.7) analyses. The locations of the ten hand borings, 27 Geoprobe borings, and six subsurface test trench excavations completed as part of the Phase 1 SI are shown in Figure 2.

2.1.3 Groundwater Investigations

During the week of July 27, 1998, personnel from BDA and CME Associates mobilized to the site to complete five shallow groundwater monitoring well installations (MW-1, MW-2, MW-3, MW-4, and MW-5) within the subject property in order to assess the presence of potential shallow groundwater quality impacts at the site. The locations of monitoring wells MW-1 through MW-5 are shown in Figure 2. Each of the subsurface monitoring well borings was completed using continuous split spoon sampling at each monitoring well location, consistent with ASTM D-1586-84, and advanced using a six-inch O.D. hollow stem auger without the use of air or drilling fluids. Continuous sampling was completed as a means to define the unconsolidated geology prior to boring advancement.

During the completion of shallow monitoring well borings, retrieved soil samples were field screened for the presence of volatile organic compounds, using a Thermo-Environmental (PID). Each of the monitoring well installations was constructed of two-inch diameter PVC tri-lock jointed screen and riser, with locking caps. Consistent with the gravel, sand, and silt conditions identified at the site, each monitoring well was constructed using 10-slot (0.01-inch) well screens and "0-grade" sandpack. Screens, risers and fittings were steam cleaned prior to installation. Split spoons and downhole apparatus/tools were decontaminated (steam cleaned) between samples. Details regarding the location and well screen interval of each monitoring well installed at the site are listed in the following report table.

Monitoring Well Installation Location Details

Well	Location	Well Screen Interval
MW-1	Northeast Corner of Site	6 to 16 feet below grade
MW-2	Northwest Corner of Site	5 to 15 feet below grade
MW-3	Southwest Corner of Site	4 to 14 feet below grade
MW-4	Southeast Corner of Site	4 to 14 feet below grade
MW-5	South of Building Foundation	5.5 to 15.5 feet below grade

A bentonite seal, at least two feet in thickness, was placed following the installation of the sand pack to minimize the potential downward communication (or short-circuiting) of infiltrating surface waters to the local shallow groundwater regime. The balance of the hole was backfilled with a cement/bentonite grout. The placement of annular material was coordinated with the withdrawal of augers or casing to minimize caving around the well screen and riser pipe. Annular material was placed with a tremie to avoid bridging between riser and borehole. For each of the shallow wells, the screen was installed so as to "straddle" the perceived groundwater surface. A vented flush-mount casing with a locking steel cap, was installed to surround each PVC well location to maintain well integrity. Each of the monitoring wells was finished by installing a concrete cap, sloped away from the respective well casing, to prevent runoff water infiltration. The void between each steel casing and PVC riser was filled with heavy grade sand to prevent invasion by rodents and insects. A weep hole was drilled into each steel casing, just above the

concrete cap. During the completion of subsurface drilling tasks, drill cuttings were visually inspected and screened with a PID. Drill cuttings that exhibited obvious evidence (staining, odors, elevated PID readings) were placed in drums and staged on-site.

Each of the monitoring wells was developed and purged using electric submersible pumps on August 1, 1998. During well development efforts, turbidity readings were found to improve to values between 40 to 90 NTUs over the duration of well development. On August 6, 1998, groundwater samples were collected from each monitoring well for TCL parameters. The top of each monitoring well PVC riser was subsequently surveyed to establish the horizontal location and elevation of the measuring point, so that depth to water measurements could be utilized to calculate site specific groundwater elevations, groundwater contours, and groundwater flow directions. All elevations were referenced to the top of a fire hydrant located along Chester Street.

2.1.4 Phase 2 Subsurface Soil Investigations

In an effort to confirm the extent of soil contamination identified as part of the Phase 1 Subsurface Soil Investigation, a series of Phase-2 subsurface test trench excavations were completed within the site (Phase-2A) and at residential properties located immediately east of the subject property (Phase-2B). During the week of November 15, 1999, test trench excavations TT-7 through TT-15 were completed within the subject property utilizing a rubber wheeled backhoe. As part of this effort, soil samples were routinely collected for total organic vapor screening utilizing a PID, and PCB field screening using immunoassay screening. Separate subsurface soil samples were collected from test trench excavations T-7 through T-15 for PCB (EPA Method 8080), semi-volatile organic compound (EPA Method 8270), and total petroleum hydrocarbon (NYSDOH Method 310-13) analyses. In addition, an oil sample was collected from test trench T-8 for PCB (EPA Method 8080), volatile organic compound (EPA Method 8260), semi-volatile organic compound (EPA Method 8270), and total petroleum hydrocarbon (NYSDOH Method 310-13) analyses.

During the week of May 15, 2001, test trench excavations TT-16 through TT-22 were completed within the neighboring residential properties immediately east of the subject property utilizing a rubber wheeled backhoe. As part of this effort, soil samples were routinely collected for PID volatile organic vapor screening and PCB immunoassay screening. Separate subsurface soil samples were collected from each of the 12 test trenches for PCB (EPA Method 8080), volatile organic compound (EPA Method 8260), and semi-volatile organic compound (EPA Method 8270) analyses. The locations of the 9 on-site and 7 off-site (residential property) test trench excavations completed as part of the Phase 2 Site Investigation are shown in Figure 2.

2.1.5 Qualitative Human Health Risk Assessment

In an effort to assess potential site impacts on human health and the environment, a general qualitative human health risk assessment was completed, including a contaminant exposure and toxicity assessment. The results of this focused qualitative risk assessment were used to develop an overall characterization of risk to humans and the environment.

The focused risk assessment included an evaluation of the following aspects, based on current and historic site specific analytical data: 1) contaminant identification and selection of indicator compounds and chemicals of concern; 2) exposure assessment to identify actual or potential exposure pathways and the extent or amount of exposure; 3) toxicity assessment and dose response information, and 4) risk characterization of the potential risks or adverse health or environment effects for each of the exposure scenarios.

2.1.6 Data Usability Review

In an effort to provide adequate, compliant, and defensible data, consistent with NYSDEC Guidance, a portion of the analytical data generated as part of the Site Investigations was reviewed by DATAVAL, Inc., of Endwell, New York. A general evaluation of field records and analytical data was performed to assess whether the data are accurate, usable, and defensible. The data usability review effort was completed for analytical data generated as part of the Site Investigation, consistent with NYSDEC-DUSR Guidance.

3.0 SITE INVESTIGATION RESULTS

3.1 Subsurface Investigations

In order to identify the subsurface presence of existing USTs, pipelines, debris, and/or general evidence of contaminant releases at the site, a series of ten hand borings, 27 Geoprobe borings, and six test trench excavations were completed as part of the Phase 1 Site Investigation. In an effort to confirm the extent of contamination at the site, a series of nine on-site (Phase 2A) and seven off-site (Phase 2B) supplemental test trenches were completed as part of Phase 2 Site Investigations. During the week of July 27, 1998, five shallow groundwater monitoring well installations (MW-1, MW-2, MW-3, MW-4, and MW-5) were completed within the subject property in order to assess the existence of potential shallow groundwater quality impacts at the site. A listing of the subsurface conditions encountered within each of the completed test pit excavations is included within the Screening and Immunoassay Logs shown in Appendix A of this report.

3.1.1 Hand Boring Investigations

During the completion of the ten hand borings, the soils encountered within the "NYSDOH Hot Spot" area generally included native organic material or loose urban fill material to a depth of six-inches below grade. As shown in the Screening and Immunoassay Logs (Appendix A), although the majority of soil samples collected from the hand borings did not exhibit the presence of volatile organic vapors (above 2 ppm) or PCBs (above 10 ppm) during field PID and PCB immunoassay screening, the soil sample collected from boring HB-9 exhibited a PCB concentration in the range of 10 to 50 ppm. Accordingly, a separate soil sample was collected from boring HB-9 for PCB (EPA Method 8080), volatile organic compound (EPA Method 8240), semi-volatile organic compound (EPA Method 8270), and TAL metals (CLP Method 200.7) analyses. As shown in Tables 1-1 through 1-3, and as summarized in the following table, concentrations of organic compounds were identified within the boring HB-9 soil sample above TAGM 4046 recommended soil cleanup objectives (RSCOs).

Summary of Soil Sample HB-9 Organic Compound Analytical Results As Compared to TAGM 4046 RSCOs

Parameter	Units	TAGM 4046 RSCO	Concentration
PCB Aroclor 1254	mg/kg	1 (surface); 10 (subsurface)	72
Benzo (a) anthracene	mg/kg	0.224 or MDL	19
Benzo (a) pyrene	mg/kg	0.061 or MDL	6.5
Benzo (b) flouranthene	mg/kg	1.1	9.9
Benzo (k) flouranthene	mg/kg	1.1	4.9
Chrysene	mg/kg	0.4	12
Dibenzo (a.h) anthracene	mg/kg	0.014 or MDL	1.2
Indeno (1,2,3-cd) pyrene	mg/kg	3.2	2.5

In addition to the elevated presence of native non-metals and metals (barium, calcium, iron, magnesium, and zinc), the soil sample collected from HB-9 exhibited elevated concentrations of arsenic (21.5 mg/kg), cadmium (2.0 mg/kg), chromium (25.7 mg/kg), nickel (29.3 mg/kg) and selenium (5.4 mg/kg) which slightly exceeded respective TAGM 4046 recommended soil cleanup objectives (RSCOs) or accepted Eastern US background concentrations (see Table 1-4).

3.1.2 Geoprobe Boring Investigations

During the completion of the 27 Geoprobe soil borings, the soil conditions encountered were variable, but generally included 1 to 4 feet of urban fill (including sand and/or silt mixed within crushed stone, gravel, brick, ash, cinders, and/or wood debris) overlying dense silt with little to some clay and/or sand to a depth ranging from 10 to 12 feet below grade. Evidence of perched shallow groundwater conditions was identified at 3.7 to 11 feet below grade during the completion of borings GP-5, GP-10, GP-11, GP-16, GP-18, GP-23, GP-24, GP-25, and GP-27.

As shown in the Screening and Immunoassay Logs (Appendix A), the results of field observations (odor and/or sheen), field PID screening, and/or PCB Immunoassay screening revealed the presence petroleum and/or PCB contamination within the majority of borings soil samples. In an effort to quantify the most significant contamination field identified during completion of these borings, separate soil samples were collected from borings GP-2 (4.0-5.7 feet), GP-5 (2.0-4.0 feet), GP-8 (0.5-2.0 feet), GP-13 (0-0.5 feet), GP-16 (0-0.5 feet), GP-17 (8-10 feet), and GP-25 (0-0.5 feet) for PCB (EPA Method 8080), volatile organic compound (EPA Method 8240), semi-volatile organic compound (EPA Method 8270), and TAL metals (CLP Method 200.7) analyses.

Although the presence of PCBs was not detected within the soil samples collected from borings GP-2, GP-5, GP-8, GP-16, GP-17, and GP-25, PCB Aroclor 1254 was detected within the soil sample collected from boring GP-13 at a concentration of 22 mg/kg. The following volatile and semi-volatile organic compounds were identified within the soil

samples collected from borings GP-2, GP-5, GP-8, GP-13, GP-16, and GP-25 above TAGM 4046 RSCOs (see also Tables 1-1 through 1-3).

Geoprobe Boring Soil Sample Analytical Data Summary of Organic Compounds Detected

Boring Type	Parameter	RSCO mg/kg)	Concentration (mg/kg)
GP-2 (4-5.7 feet)	Benzo (a) anthracene	0.224 or MDL	34.0
	Benzo (a) pyrene	0.061 or MDL	24.0
	Benzo (b) flouranthane	1.1	43.0
	Benzo (k) flouranthane	1.1	7.60
	Chrysene	0.4	28.0
	Dibenzofuran	6.2	6.90
	Fluoranthene	50.0	72.0
	Indeno (1,2,3-cd) pyene	3.2	12.0
	Phenanthrene	50.0	92.0
	Pyrene	50.0	97.0
GP-5 (2-4 feet)	Acetone	0.2	1.70
	2-Butanone	0.3	0.36
GP-8 (0.5-2.0 feet)	Benzo (a) anthracene	0.224 or MDL	6.50
	Benzo (a) pyrene	0.061 or MDL	3.10
	Benzo (b) flouranthane	1.1	5.30
	Benzo (k) flouranthane	1.1	1.60
	Chrysene	0.4	4.80
GP-13 (0-0.5 feet)	Benzo (a) anthracene	0.224 or MDL	2.60
	Benzo (a) pyrene	0.061 or MDL	1.60
	Benzo (b) flouranthane	1.1	2.70
	Chrysene	0.4	1.9
	Dibenzo (a,h) anthracene	0.014 or MDL	0.33
GP-16 (0-0.5 feet)	Benzo (a) anthracene	0.224 or MDL	11.0
	Benzo (a) pyrene	0.061 or MDL	7.50
	Benzo (b) flouranthane	1.1	12.0
	Benzo (k) flouranthane	1.1	4.40
	Chrysene	0.4	9.20
	Dibenzo (a,h) anthracene	0.014 or MDL	1.50
	Indeno (1,2,3-cd) pyene	3.2	4.70
GP-25 (0-0.5 feet)			
	Chrysene	0.4	2.50

In addition to the elevated presence of native non-metals and metals (barium, calcium, iron, magnesium, and zinc), the soil samples collected from borings GP-2, GP-5, GP-8, GP-13, GP-16, GP-17, and GP-25 exhibited elevated concentrations of arsenic (12.6 to 22.4 mg/kg), cadmium (1.7 to 2.7 mg/kg), chromium (16.6 to 33.2 mg/kg), nickel (13.9 to 426 mg/kg), and selenium (5.0 to 8.1 mg/kg), which exceeded respective TAGM 4046 RSCOs or accepted Eastern US background concentrations (see Table 1-4).

3.1.3 Phase I Test Trench Investigations

During the completion of the six Phase-1 test trench excavations (T-1 through T-6), the soil conditions encountered were variable, but generally included 1 to 4 feet of concrete and/or urban fill (including sand and/or silt mixed within concrete debris, crushed stone, gravel, brick, ash, cinders, and/or wood debris) overlying dense sandy silt with trace to little clay to a depth ranging from 10 to 12 feet below grade. During the completion of test trenches T-1, T-2, and T-4, oil saturated soils and a limited volume of oil product were encountered at depths ranging from 5 to 13 feet below grade. Evidence of perched shallow groundwater conditions was also identified at 5 feet below grade during the completion of test trench T-1.

As shown in the Screening and Immunoassay Logs (Appendix A), the results of field observations (odor, sheen, or oil product), field PID screening and/or PCB Immunoassay screening revealed the presence of petroleum and/or PCB contamination within test trenches T-1, T-2, T-4, and T-5. In an effort to quantify the most significant contamination field identified during completion of these test trenches, separate soil samples were collected from test trenches T-1 (5 feet), T-2 (11 feet), T-4 (13 feet), T-5 (13 feet), and T-6 (13 feet) for PCB (EPA Method 8080), volatile organic compound (EPA Method 8240), semi-volatile organic compound (EPA Method 8270), and TAL metals (CLP Method 200.7) analyses.

Although the presence of PCBs was not detected within the soil samples collected from test trenches T-1, T-2, T-5, T-6, PCB Aroclor 1248 was detected within the soil sample collected from test trench T-4 (13 feet below grade) at a concentration of 5 mg/kg. Although low-level concentrations of volatile organic compounds were detected within the soil samples collected from test trenches T-1, T-2, T-4, T-5, and T-6, these concentrations did not exceed TAGM 4046 recommended soil cleanup objectives (RSCOs). Furthermore, although low-level concentrations of semi-volatile organic compounds were detected within the soil samples collected from test trenches T-1, T-2, T-4, T-5, and T-6, these concentrations did not exceed TAGM 4046 recommended soil cleanup objectives (RSCOs), except for benzo (a) pyrene, which was identified within the soil sample collected from test trench T-6 at a concentration of 0.340 mg/kg.

In addition to the elevated presence of native non-metals and metals (barium, calcium, iron, magnesium, and zinc), the soil samples collected from test trenches T-1, T-2, T-4, T-5, and T-6 exhibited elevated concentrations of arsenic (9.7 to 29.3 mg/kg), cadmium (1.5 to 14.7 mg/kg), chromium (156 mg/kg), mercury (3.9 mg/kg), nickel (15.5 to 342 mg/kg),

and selenium (3.0 to 13.5 mg/kg) which exceeded respective TAGM 4046 RSCOs or accepted Eastern US background metal concentrations. (See Table 1-4)

3.1.4 Phase IIA (On-Site) Test Trench Investigations

During the completion of the nine Phase-2A (on-site) test trench excavations (T-7 through T-15), the soil conditions encountered were variable. A significant volume of urban fill and demolition debris was identified within test trench locations T-7 and T-15, while urban fill overlying apparent native sand and silt (with some gravel and clay) was identified at test trench locations T-8 through T-14. During the completion of test trenches T-8, T-11, T-12, and T-13, the presence of oil was encountered on groundwaters that infiltrated to the subject excavations. In addition, as shown in the Screening and Immunoassay Logs (Appendix A), the results of field observations (odor, sheen) and field PID screening revealed evidence of residual petroleum contamination within the soils of test trenches T-7, T-9, T-10, and T-15.

In an effort to quantify the most significant contamination identified during the field investigation, separate soil samples were collected from test trenches T-7 through T-15 for PCB (EPA Method 8080), semi-volatile organic compound (EPA Method 8270), and total petroleum hydrocarbon (NYSDOH Method 310-13) analyses. An oil product sample was also collected from test trench T-8 for PCB (EPA Method 8080), volatile organic compound (EPA Method 8240), semi-volatile organic compound (EPA Method 8270), and total petroleum hydrocarbon (NYSDOH Method 310-13) analyses.

As shown in Tables 2-1 and 2-2, analysis of the oil sample collected from test trench T-8 revealed the presence of naphthalene (200 mg/l), 2-methylnaphthalene (81 mg/l), and methylene chloride (9.7 mg/l) above TAGM 4046 RSCOs.

The elevated presence of semi-volatile organic compounds was not identified within the soil samples collected from test trenches T-8, T-9, T-11, T-12, T-13, and T-14. The following semi-volatile organic compounds were identified within the soil samples collected from test trenches T-7, T-10, and T-15 above TAGM 4046 RSCOs (see also Tables 2-1 and 2-2).

Phase 2A (On-Site) Test Trench Soil Sample Analytical Data
Summary of Organic Compounds Detected

Location		RSCO (mg/kg)	Concentration (mg/kg)
T-7 (2)	Benzo (a) anthracene	0.224 or MDL	19
3 ft.	Chrysene	0.4	17
	Benzo (b) flouranthene	1.1	17
	Benzo (k) flouranthene	1.1	7.9
	Benzo (a) pyrene	0.061 or MDL	18
	Indeno (1,2,3-cd) pyrene	3.2	7.6

T-10 (1)	Benzo (a) pyrene	0.061 or MDL	1.412 ft.
T-15 (1)	Chrysene	0.4	13
5 ft.	Benzo (b) flouranthene	1.1	14
	Benzo (k) flouranthene	1.1	4.2
	Benzo (a) pyrene	0.061 or MDL	9.9

Although the presence of PCBs was not detected within the soil samples collected from test trenches T-8, T-9, T-10, T-11, T-12, T-13, and T-14, trace concentrations (below the applicable TAGM 4046 RSCOs for subsurface soils) of PCB Aroclor 1248 or 1254 were detected within the soil samples collected from test trenches T-7 and T-15 (see Table 2-3).

The following table summarizes the results of total petroleum hydrocarbon analyses of soil collected from trenches T-7 through T-15.

Phase 2A (On-Site) Test Trench Soil Sample Analytical Data
Summary of Total Petroleum Hydrocarbon Detected

Location	Fuel Oil #2	Lubricating Oil	Unidentified	TPH
T-7	Not Detected	Detected	Not Detected	Detected
T-8	Detected	Detected	Not Detected	Detected
T-9	Not Detected	Detected	Not Detected	Detected
T-10	Not Detected	Detected	Not Detected	Detected
T-11	Detected	Detected	Not Detected	Detected
T-12	Not Detected	Detected	Detected	Detected
T-13	Detected	Detected	Not Detected	Detected
T-14	Not Detected	Not Detected	Not Detected	Not Detected
T-15	Not Detected	Detected	Detected	Detected

3.1.5 Phase IIB (Off-Site) Test Trench Investigations

During the completion of the thirteen Phase-2B (off-site) test trench excavations, the soil conditions encountered to a depth of 9 to 12 feet below grade generally included moist to wet dark gray sand and silt. As shown in the Screening and Immunoassay Logs (Appendix A), the results of field observations (odor, sheen) and field PID screening revealed evidence of residual petroleum contamination within the soils of test trenches T-16(1), T-16(2), T-17(1), and T-18(1).

In order to quantify the most significant contamination identified during this field investigation task, separate soil samples were collected from each of the thirteen test trenches for PCB (EPA Method 8080), volatile organic compound (EPA Method 8240), and semi-volatile organic compound (EPA Method 8270) analyses.

As shown in Tables 3-1 and 3-2 and summarized in the following table, trace to low-level concentrations of the specific volatile and semi-volatile organic compounds were identified

within the soil samples collected from the following test trenches above TAGM 4046 recommended soil cleanup objectives (RSCOs).

Phase 2B (Off-Site) Test Trench Soil Sample Analytical Data
Summary of Organic Compounds Detected

Trench	Parameter	RSCO (mg/kg)	Concentration (mg/kg)
T-16-1	Acetone	0.2	2.000
	Chloroform	0.3	1.200
	Chrysene	0.4	2.000
T-16-2	Acetone	0.2	0.910
	Chloroform	0.3	0.440
T-17-1	Acetone	0.2	0.680
T-18-1	Acetone	0.2	0.670
	Chloroform	0.3	0.540
T-19-1	Acetone	0.2	0.780
	Chloroform	0.3	0.690
T-20-1	Acetone	0.2	0.500
	Chloroform	0.3	0.510
T-20-2	Chrysene	0.4	1.200

As shown in Table 3-3, the presence of PCBs was not detected within any of the soil samples collected from the thirteen Phase 2B (Off-Site) test trenches.

3.2 Groundwater Investigations

3.2.1 Field Observations

During the week of July 27, 1998, five shallow groundwater monitoring wells (MW-1, MW-2, MW-3, MW-4, and MW-5) were installed at site perimeter locations as part of the Site Investigation. In general, the geologic conditions encountered during the completion of each monitoring well boring included a layer of brown soil and urban fill (generally 2 to 6 feet thick) overlying intermixed silt and fine sand to a depth of approximately 12 feet below grade. Consistently wet soils were generally encountered at a depth of 9 to 11 feet below grade.

On August 1, 1998, each of the five monitoring wells was developed for a period of one hour by overpumping using a submersible pump. Although the monitoring wells exhibited only minimal groundwater yield during developments, turbidity readings generally improved to values between 100 to 150 NTUs over the duration of the development effort. On the morning of August 6, 1998, each of the monitoring wells was purged using disposable polyethylene bailers and allowed to recharge. On August 6, 1998, groundwater samples were collected from each of the monitoring wells, packed in ice filled coolers, and delivered to Upstate Laboratories for TCL parameter analysis.

3.2.2 Results of Groundwater Quality Sampling and Analysis

The groundwater samples collected as part of the Site Investigation were analyzed for TCL parameters, including EPA 8260 volatile organic compounds, EPA 8270 semi-volatile organic compounds, EPA 8080 PCBs/pesticides, and TAL metals. The groundwater sample analytical results are included within Appendix B and are summarized in Tables 4-1 through 4-4. The presence of PCBs and semi-volatile organic compounds was not detected within the groundwater samples collected from wells MW-1, MW-2, MW-3, MW-4, and MW-5. As shown in Tables 4-2 through 4-4 and summarized in the following table, only trace to low-level concentrations of the following specific volatile organic compounds and heavy metals were detected within the groundwaters collected from the five wells.

Summary of Groundwater Quality Analytical Data
Parameters Detected at Elevated Concentrations

Parameter	Units	Class GA Standard	MW-1	MW-2	MW-3	MW-4	MW-5
VOCs							
Chloroform	ug/l	7	<10	**20**	<10	2	2
Heavy Metals							
aluminum	ug/l	100	**222**	**143**	**139**	**169**	**147**
cadmium	ug/l	5	**45.4**	R	R	R	R

Note: Class GA Groundwater Quality Exceedences **Bold and Underlined**
R = rejected data as per the Data Usability Summary Report

In addition to the aluminum and cadmium, elevated sodium concentrations (exceeding the Class GA Standard of 20,000 ug/l) were identified within the groundwater samples collected from wells MW-1, MW-3, MW-4, and MW-5. Although native parameters including barium, calcium, magnesium, manganese, and potassium were detected within the majority of the well groundwater samples, the resultant concentrations did not exceed applicable NYSDEC Class GA groundwater quality standards or guidance values. In addition, the presence of chromium, iron, nickel, antimony, beryllium, cobalt, copper, selenium, silver, thallium, and vanadium was not detected within any of the monitoring well groundwater samples collected as part of the Site Investigation.

3.2.3 Groundwater Flow Directions

On August 6, 1998, depths to groundwater were measured within each of the five site monitoring wells and each of the monitoring well top of PVC riser elevations was surveyed to establish the horizontal location and elevation of the measuring point, so that depth to water measurements could be utilized to calculate site specific groundwater elevations, groundwater contours, and groundwater flow directions. All elevations were referenced to the top of an existing fire hydrant located along the east side of Chester Street (adjacent to

the 121 Chester Street residence). The depth to groundwater and calculated groundwater elevations for each of the site monitoring wells is presented in Table 4-5 and summarized in the following table.

Summary of Groundwater Depth and Elevation Measurements
August 6, 1998

Monitoring Well	Screen Interval	PVC Elevation	Depth to Water	Groundwater Elevation
MW-1	6-16 ft.	96.86 ft.	9.37 ft.	87.49 ft.
MW-2	5-15 ft.	97.29 ft.	9.65 ft.	87.64 ft.
MW-3	4-14 ft.	97.26 ft.	10.17 ft.	87.09 ft.
MW-4	4-14 ft.	97.00 ft.	9.95 ft.	87.05 ft.
MW-5	5.5-15.5 ft.	97.40 ft.	10.19 ft.	87.21 ft.

As shown on Figure 3, shallow groundwater flow at the site was calculated to trend slightly from north to south over the majority of the site. As previously noted (from the results of test pit excavation and subsurface boring efforts), it appears that perched groundwater conditions exist within the western portion of the site. Furthermore, during the completion of well development purging efforts, the monitoring wells exhibited only minimal groundwater yield. Consistent with the results of well specific groundwater elevations calculations, it is estimated that the hydraulic gradient across the site is a minimal 0.27 percent. Based on the soil conditions and geology identified at the site and the rates of groundwater recovery observed at wells MW-1, MW-2, MW-3, MW-4, and MW-5, it is estimated that the permeability of the shallow silt and sand soils at these wells ranges between 1×10^{-7} to 1×10^{-4} cm/sec.

3.3 Qualitative Human Health Risk Evaluation

A qualitative human health risk evaluation was completed as part of the Site Investigation. The procedure for performing the risk assessment was consistent with USEPA methodologies, and the scope was developed in accordance with NYSDOH guidance. The sequencing of steps was modified to streamline the process consistent with the goals of Brownfield site investigations. This qualitative risk assessment was completed using a two-step process, including 1) contaminant identification and selection of contaminants of concern and 2) exposure assessment to identify actual or potential exposure pathways.

3.3.1 Contaminant Identification and Exposure Assessment

Data from the site investigation phase was used as the basis for the risk assessment. Sampling was conducted for subsurface soil, groundwater, and materials within subsurface structures and drains. There was no surface water or air sampling performed as part of the Site Investigation. The qualitative exposure assessment consisted of two steps:

1. Exposure Setting Characterization – Description of the physical characteristics of the

site and populations near the site. This includes information such as soil types, geologic setting, and groundwater flow.

2. Exposure Pathway Identification – Identification of potentially exposed populations and the associated exposure pathway. The exposure pathway consists of four elements:
   - The contaminant source (e.g., previous release)
   - The transport medium (e.g., groundwater)
   - The exposure point (e.g., [potable water supply well)
   - The exposure route (e.g., ingestion)

3.3.2 Site Specific Qualitative Assessment

Contaminant Identification

Tables 1-1 through 1-4, 2-1 through 2-4, 3-1 through 3-3, and 4-1 through 4-4 present the results of the Site Investigation sampling and analysis program that was conducted at the site. As shown in the following summary table, a number of organic and heavy metals were identified at elevated concentrations within the media collected as part of the Brownfields Site Investigation.

PCBs	**Media of Detection**
Aroclor 1248	surface and subsurface soils
Aroclor 1254	surface and subsurface soils

VOCs	**Media of Detection**
Acetone	surface and subsurface soils
2-Butanone	surface and subsurface soils
Chloroform	subsurface soils, shallow groundwater
Methylene Chloride	surface and subsurface soils, oil on groundwater

Semi-VOCs	**Media of Detection**	
Benzo(a)anthracene	surface and subsurface soils	
Benzo(a) pyrene	surface and subsurface soils	
Benzo(b)fluoranthene	surface and subsurface soils	
Benzo(k)fluoranthene	surface and subsurface soils	
Chrysene	surface and subsurface soils	
Dibenzo(a,h)anthracene	surface soils	
Dibenzofuran	subsurface soils	
Fluoranthene	subsurface soils	
Indeno(1,2,3-cd)pyrene	surface and subsurface soils	
2-Methylnaphthalene	oil on groundwater	
Naphthalene	oil on groundwater Phenanthrene	subsurface soils
Pyrene	subsurface soils	

Metals	Media of Detection
Aluminum	shallow groundwater
Arsenic	surface and subsurface soils
Barium	surface and subsurface soils
Beryllium	surface and subsurface soils
Cadmium	surface and subsurface soils
Chromium	surface and subsurface soils
Copper	surface and subsurface soils
Iron	surface and subsurface soils
Lead	surface and subsurface soils
Magnesium	surface and subsurface soils
Mercury	subsurface soils
Nickel	surface and subsurface soils
Selenium	surface and subsurface soils
Sodium	shallow groundwater
Zinc	surface and subsurface soils

3.3.3 Exposure Assessment

Exposure Setting Characterization

The former Brown Manufacturing site is located in a residential area of the City of Syracuse. Groundwater flow at the site trends in the north to south direction. Hydraulically downgradient from the site, the land usage is commercial and industrial. Access to the property is unrestricted. Given the location within the City, and the fact that drinking water in the area is provided by a public water supply, groundwater use for potable water is unlikely. Current populations that could potentially be impacted by contaminants at the site are limited. Since the site is vacant, there are no onsite workers. Public roads border the site to the north and west.

Contamination leaving the site via the municipal sewer system, if any, would enter the Onondaga County sewer system. If there were workers in the sewer system at the time that precipitation or runoff from the site was entering the sewers, exposure would be possible, although unlikely. Based on this information, populations potentially affected would include the following:

- Trespassers – unauthorized visitors to the site
- County sewer workers – exposed to contaminated runoff entering the sewers
- General public – pedestrians or vehicle passengers on the adjacent streets
- Future on-site construction workers – workers involved in excavation of contaminated soils at the site (note that this assessment excludes workers performing remedial activities as part of the project)

Exposure Pathway Identification

As described above, the exposure pathway identification consists of the following four steps:

1. Contaminant source – Data from the sampling and analysis program identified levels of contamination in the surface soils, subsurface soil, and to a lesser extent shallow groundwaters.
2. Transport medium – The transport media for each contaminant source is identified in the table below. Given the general condition of the facility, it was assumed that water in the subsurface drains could enter groundwater from leaking pipes or along building foundation walls.
3. Exposure points – The exposure point is the point of potential human contact with the contaminated medium under reasonable current and future land uses. The exposure points for the site are shown in the table below.

Contaminant Source	**Transport Medium**	**Exposure Point**
Groundwater	Groundwater	on-site construction worker
Surface Soil	Runoff	on-site construction worker
	Soil Dispersion	off-site neighboring residents or trespassers
Subsurface soil	Soil	on-site construction worker
	Ground water	on-site construction worker

4. Exposure route – The routes of exposure for each potential exposure point identified above are discussed below:
   - Exposure of off-site workers to site contaminants – This would be limited to the unlikely circumstance of workers involved with nearby municipal sewers working at the same time that contaminants from the site were entering the sewer system. Typically, this would only occur during periods of precipitation and/or runoff. Exposure could occur via ingestion, inhalation, and/or dermal contact.
   - Exposure of local residents, trespassers, and/or on-site workers to subsurface soil contamination – This is a scenario for local residents or future construction workers if no remediation of subsurface contamination takes place. Excavation of contaminated soils could result in exposure via ingestion, dermal contact, or inhalation of dust particles.
   - Exposure of on-site workers to groundwater contamination - This is a scenario for future construction workers if no remediation of subsurface contamination takes place. Excavation into contaminated soil that is below the water table could result in exposure via ingestion, dermal contact, or inhalation.

3.4 Data Usability Review

As part of the Site Investigation, media samples were collected from Geoprobe borings, subsurface test pit excavations, and groundwater monitoring wells. The collected groundwater, surface soil,

and subsurface soil samples were analyzed for TCL parameters, in accordance with EPA approved methodologies. For the samples collected for TCL parameter analysis, the project-specific analytical laboratory, Upstate Laboratories, Inc., provided analytical data reports in the form of NYSDEC ASP Category B reportables/deliverables packages.

As part of services of the project-specific analytical laboratory, Upstate Laboratories completed a review of the generated analytical data for compliance with Quality Control (QC) acceptance limits as specified in the applicable ASP method for each analysis. The following QC operations and items are considered in the validation of reported results: holding times; surrogate recovery; spiked sample recovery; duplicates/spike duplicate precision; tuning criteria; internal standard variation; continuing calibration variation; reference (check) sample recovery, and instrument, method, trip, and field blanks. The appropriate frequency for each operation is also considered.

As referenced by the laboratory in the Data Usability Summary Reports, every effort has been made to report data that is compliant with the EPA methodology cited for each analysis. In cases where the laboratory was unable to meet all method requirements prior to sample expiry, either due to the nature of the sample or other technical difficulty, results are reported with qualification with the understanding that qualified results may not be suitable for compliance purposes. The internal technical review is based on the USEPA Contract Laboratory Program (CLP), National Functional Guidelines for Organic Review (EPA 540/R-94/012, February 1994) and National Functional Guidelines for Inorganic Review (EPA 540/R-94/013, February 1994).

The results of the internal laboratory review, validation, and usability assessment are included within each of the three delivery groups of analytical data: Appendix B (Phase I Analytical Data), Appendix C (Phase IIA Analytical Data), and Appendix D (Phase IIB Analytical Data). The project Data Usability Summary Reports will be submitted to the Department under separate cover. Additional copies of the project Analytical Data Reports and Data Usability Summary Reports are available upon request.

4.0 SITE INVESTIGATION INTERPRETATIONS AND CONCLUSIONS

4.1 Surface and Subsurface Soil Investigation Results

In general, the results of surface and subsurface soil investigations completed at the site and adjacent residential properties as part of the Site Investigation revealed the following areas and media of environmental impact.

1. PCB Contaminated Soils - NYSDOH Hot Spot Area: The results of field PCB Immunoassay testing completed on the soil samples collected from the majority of hand borings (HB) and laboratory analysis of soils collected from boring HB-9 confirmed the presence of elevated PCB concentrations (greater than 1 ppm) within the surface soils (0 to 0.5 feet below grade) of the NYSDOH Hot-Spot area.

2. Oil Product and Petroleum-Related PAH-Contaminated Shallow Soils – Western Site Area: During the completion of test trench T-1, oil product was encountered along a perched water table at two locations in the vicinity of the NYSDOH Hot Spot area.

During the completion field soil sample screening efforts of Geoprobe borings GP-2, GP-3, GP-4, GP-5, GP-6, GP-11, GP-12, and GP-13, evidence of low-level petroleum and/or PCB contamination was identified. Similarly, analysis of soil samples collected from borings GP-2 (4-5.5 feet) and GP-13 (0-0.5 feet) and test trenches T-7 (3 feet) and T-15 (5 feet) revealed PAH concentrations that exceed NYSDEC TAGM 4046 Recommended Soil Cleanup Objectives. Although the horizontal extent of PAH contamination within the western site area is large, the vertical extent of contamination in this area of the site appears to be limited to the shallow soils above 4 to 5 feet below grade.

3. Oil Product and Petroleum-Related PAH-Contaminated Deep Soils Along Building Foundation Walls: During the completion of test trenches T-2, T-4, T-8, T-12, and T-13, the presence of oil product was encountered at various depths extending to the local water table (12-13 feet below grade). The presence of oil product at these locations appeared to coincide with the presence of non-native porous backfill materials located along the perimeter of the former building foundation.

4.2 Groundwater Investigation Findings

Although the results of subsurface soil investigations revealed the presence of residual petroleum contamination (elevated PAH concentrations) within a number of subsurface soil samples, and the presence of floating oil product at numerous test trench locations completed near former building foundation walls, the results of groundwater sampling and analysis at installed monitoring wells revealed only limited impacts to groundwater at the site. Specifically, analysis of these groundwater samples did not reveal the presence of petroleum related volatile organic compounds, semi-volatile organic compounds, PCBs, or elevated heavy metal concentrations. Although chloroform, aluminum, and sodium were identified within the groundwater samples collected from the monitoring wells, these parameters were generally identified at concentrations only slightly above the applicable NYSDEC Class GA Groundwater Quality Standards.

Although oil product was encountered at locations adjacent to former building foundation walls and buried pipes during the completion test trench excavations, the physical nature of the dense/viscous oil and the confining native soils appears to limit the migration potential of the oil product. Since the oil product encountered appears to exhibit an affinity for soil adsorption and was not identified within the groundwater samples collected from adjacent site monitoring wells, it does not appear that significant or extensive impacts to shallow groundwaters at the site have occurred as a result of historic activities at the site.

TABLES

TABLE - 1-1

Summary of Phase 1 SI Soil Sample Analytical Data (Polychlorinated Biphenyls- PCBs)
Former Brown Manufacturing Site, Syracuse, New York

Parameter	Surface RSCO	Subsurface RSCO	HB-9 (0.0'-0.5')	GP-2D (4.0'-5.7')	GP-5C (2.0'-4.0')	GP-8B (0.5'-2.0')	GP-13A (0.0'-0.5')	GP-16A (0.0'-0.5')	GP-25A (0.0'-0.5')	T-1Q (L=84',D=5')	T-2G (L=92',D=11')	T-4I (L=8',D=13')	T-5E (L=5',D=13')	T-6G (L=35',D=13')	T-4J Oil on Water
In-Situ PID	-	-	0.0	5.0	1.0	0.0	0.0	0.0	1.0	1.0	15.0	10.0	3.0	0.0	-
Headspace PID	-	-	0.0	6.8	5.2	1.2	2.0	0.0	0.0	6.6	28.0	25.0	11.0	0.0	50.0
Immunoassay	-	-	10-50	10-50	10-50	>50	1-10	1-10	10-50	10-50	1-10	1-10	<1	<1	10-50
PCB Aroclor 1016	1.0	10	<1	<0.09	<0.1	<0.1	<0.09	<0.09	<0.09	<15	<0.1	<0.1	<0.1	<0.1	<5
PCB Aroclor 1221	1.0	10	<2	<0.18	<0.2	<0.2	<0.18	<0.18	<0.18	<30	<0.2	<0.2	<0.2	<0.2	<10
PCB Aroclor 1232	1.0	10	<1	<0.09	<0.1	<0.1	<0.09	<0.09	<0.09	<15	<0.1	<0.1	<0.1	<0.1	<5
PCB Aroclor 1242	1.0	10	<1	<0.09	<0.1	<0.1	<0.09	<0.09	<0.09	<15	<0.1	<0.1	<0.1	<0.1	<5
PCB Aroclor 1248	1.0	10	<1	<0.09	<0.1	<0.1	<0.09	<0.09	<0.09	<15	<0.1	5	<0.1	<0.1	<5
PCB Aroclor 1254	1.0	10	72	<0.09	<0.1	<0.1	22	<0.09	<0.09	<15	<0.1	<0.1	<0.1	<0.1	<5
PCB Aroclor 1260	1.0	10	<1	<0.09	<0.1	<0.1	<0.09	<0.09	<0.09	<15	<0.1	<0.1	<0.1	<0.1	<5
		PCB Total:	72	<0.18	<0.2	<0.2	22	<0.18	<0.18	<30	<0.2	5	<0.2	<0.2	<10

Notes:
1. Results expressed in milligrams per kilogram (mg/kg) = parts per million (ppm).
2. RSCO = Recommended Soil Cleanup Objective; Source: NYSDEC "Technical And Administrative Guidance Memorandum" (TAGM) HWR-94-4046.
3. Results in BOLD type indicate detected concentrations of parameter analyzed.
4. SHADING indicates results above the RSCO.

TABLE - 1-2
Summary of Phase 1 SI
Soil Sample Analytical Data
TCL-VOCs Analyses
Former Brown Manufacturing Site, Syracuse, New York

Parameter	RSCO	HB-9 (0.0'-0.5')	GP-2D (4.0'-5.7')	GP-3C (2.0'-4.0')	GP-8B (0.5'-2.0')	GP-13A (0.0'-0.5')	GP-16A (0.0'-0.5')	GP-17F (8.0'-10.0')	GP-25A (0.0'-0.5')	T-1Q (L=84',D=5')	T-2G (L=92',D=11')	T-4I (L=8',D=13')	T-5E (L=5',D=13')	T-6G (L=35',D=13')
In-Situ PID Screening	-	0.0	5.0	1.0	0.0	0.0	0.0	100.0	1.0	1.0	15.0	10.0	3.0	0.0
Headspace PID Screening	-	0.0	6.8	5.2	1.2	2.0	0.0	140.0	0.0	6.6	28.0	25.0	11.0	0.0
Acetone	0.2	< 0.062	< 0.150	1.700	< 0.012	< 0.011	< 0.011	< 0.250	< 0.071	R	< 0.100	< 0.066	< 0.032	< 0.068
Benzene	0.06	**0.002**	< 0.028	< 0.012	< 0.012	< 0.011	< 0.011	< 0.064	< 0.011	R	< 0.060	< 0.066	< 0.032	< 0.015
Bromodichloromethane	N/L	< 0.014	< 0.028	< 0.012	< 0.012	< 0.011	< 0.011	< 0.064	< 0.011	R	< 0.060	< 0.066	< 0.032	< 0.015
Bromoform	N/L	< 0.014	< 0.028	< 0.012	< 0.012	< 0.011	< 0.011	< 0.064	< 0.011	R	< 0.060	< 0.066	< 0.032	< 0.015
Bromomethane	N/L	< 0.014	< 0.028	< 0.012	< 0.012	< 0.011	< 0.011	< 0.064	< 0.011	R	< 0.060	< 0.066	< 0.032	< 0.015
2-Butanone	0.3	< 0.014	< 0.028	0.360	< 0.012	< 0.011	< 0.011	< 0.064	< 0.011	R	< 0.060	< 0.066	< 0.032	< 0.015
Carbon Disulfide	2.7	< 0.014	< 0.028	< 0.012	< 0.012	< 0.011	< 0.011	< 0.064	< 0.011	R	**0.013**	< 0.066	< 0.032	< 0.015
Carbon Tetrachloride	0.6	< 0.014	< 0.028	< 0.012	< 0.012	< 0.011	< 0.011	< 0.064	< 0.011	R	< 0.060	< 0.066	< 0.032	< 0.015
Chlorobenzene	1.7	< 0.014	< 0.028	< 0.012	< 0.012	< 0.011	< 0.011	< 0.064	< 0.011	R	< 0.060	< 0.066	< 0.032	< 0.015
Chloroethane	1.9	< 0.014	< 0.028	< 0.012	< 0.012	< 0.011	< 0.011	< 0.064	< 0.011	R	< 0.060	< 0.066	< 0.032	< 0.015
Chloroform	0.3	**0.005**	**0.009**	**0.013**	**0.008**	**0.004**	**0.004**	< 0.064	**0.002**	R	< 0.060	< 0.066	< 0.032	< 0.015
Chloromethane	N/L	< 0.014	< 0.028	< 0.012	< 0.012	< 0.011	< 0.011	< 0.064	< 0.011	R	**0.016**	< 0.066	< 0.032	< 0.015
Dibromochloromethane	N/S	< 0.014	< 0.028	< 0.012	< 0.012	< 0.011	< 0.011	< 0.064	< 0.011	R	< 0.060	< 0.066	< 0.032	< 0.015
1,1-Dichloroethane	0.2	< 0.014	< 0.028	< 0.012	< 0.012	< 0.011	< 0.011	< 0.064	< 0.011	R	< 0.060	< 0.066	< 0.032	< 0.015
1,2-Dichloroethane	0.1	< 0.014	< 0.028	< 0.012	< 0.012	< 0.011	< 0.011	< 0.064	< 0.011	R	< 0.060	< 0.066	< 0.032	< 0.015
1,1-Dichloroethene	0.4	< 0.014	< 0.028	< 0.012	< 0.012	< 0.011	< 0.011	< 0.064	< 0.011	R	< 0.060	< 0.066	< 0.032	< 0.015
cis-1,2-Dichloroethene	N/L	< 0.014	< 0.028	< 0.012	< 0.012	< 0.011	< 0.011	< 0.064	< 0.011	R	< 0.060	< 0.066	< 0.032	< 0.015
trans-1,2-Dichloroethene	0.3	< 0.014	< 0.028	< 0.012	< 0.012	< 0.011	< 0.011	< 0.064	< 0.011	R	< 0.060	< 0.066	< 0.032	< 0.015
1,2-Dichloropropane	N/L	< 0.014	< 0.028	< 0.012	< 0.012	< 0.011	< 0.011	< 0.064	< 0.011	R	< 0.060	< 0.066	< 0.032	< 0.015
cis-1,3-Dichloropropene	N/L	< 0.014	< 0.028	< 0.012	< 0.012	< 0.011	< 0.011	< 0.064	< 0.011	R	< 0.060	< 0.066	< 0.032	< 0.015
trans-1,3-Dichloropropene	N/L	< 0.014	< 0.028	< 0.012	< 0.012	< 0.011	< 0.011	< 0.064	< 0.011	R	< 0.060	< 0.066	< 0.032	< 0.015
Ethylbenzene	N/L	< 0.014	< 0.028	**0.014**	< 0.012	< 0.011	< 0.011	< 0.064	< 0.011	R	< 0.060	< 0.066	< 0.032	< 0.015
2-Hexanone	N/L	< 0.014	< 0.028	**0.086**	< 0.012	< 0.011	< 0.011	< 0.064	< 0.011	R	< 0.060	< 0.066	< 0.032	< 0.015
Methylene Chloride	0.1	< 0.017	< 0.160	< 0.089	< 0.089	**0.028**	< 0.036	< 0.110	< 0.054	R	< 0.086	< 0.066	< 0.036	< 0.024
4-Methyl-2-Pentanone	1.0	< 0.014	< 0.028	**0.200**	< 0.012	< 0.011	< 0.011	< 0.064	< 0.011	R	< 0.060	< 0.066	< 0.032	< 0.015
Styrene	N/L	< 0.014	< 0.028	< 0.012	< 0.012	< 0.011	< 0.011	< 0.064	< 0.011	R	< 0.060	< 0.066	< 0.032	< 0.015
1,1,2,2-Tetrachloroethane	0.6	< 0.014	< 0.028	< 0.012	< 0.012	< 0.011	< 0.011	< 0.064	< 0.011	R	< 0.060	< 0.066	< 0.032	< 0.015
Tetrachloroethene	1.4	< 0.014	< 0.028	< 0.012	< 0.012	< 0.011	< 0.011	< 0.064	< 0.011	R	< 0.060	< 0.066	< 0.032	< 0.015
Toluene	1.5	**0.002**	**0.009**	**0.015**	< 0.012	< 0.011	< 0.011	< 0.064	< 0.011	R	< 0.060	< 0.066	< 0.032	< 0.015
1,1,1-Trichloroethane	0.8	< 0.014	< 0.028	< 0.012	< 0.012	< 0.011	< 0.011	< 0.064	< 0.011	R	< 0.060	< 0.066	< 0.032	< 0.015
1,1,2-Trichloroethane	N/L	< 0.014	< 0.028	< 0.012	< 0.012	< 0.011	< 0.011	< 0.064	< 0.011	R	< 0.060	< 0.066	< 0.032	< 0.015
Trichloroethene	0.7	< 0.014	< 0.028	< 0.012	< 0.012	< 0.011	< 0.011	< 0.064	< 0.011	R	< 0.060	< 0.066	< 0.032	< 0.015
Vinyl Chloride	0.2	< 0.014	< 0.028	< 0.012	< 0.012	< 0.011	< 0.011	< 0.064	< 0.011	R	< 0.060	< 0.066	< 0.032	< 0.015
m-Xylene, p-Xylene	1.2	**0.004**	**0.013**	**0.022**	< 0.012	< 0.011	< 0.011	< 0.064	< 0.011	R	**0.330**	**0.140**	< 0.032	< 0.015
o-Xylene	1.2	< 0.014	**0.011**	**0.021**	< 0.012	< 0.011	< 0.011	< 0.064	< 0.011	R	< 0.060	< 0.066	< 0.032	< 0.015

Notes:
1. Results expressed in milligrams per kilogram (mg/kg) = parts per million (ppm).
2. RSCO = Recommended Soil Cleanup Objective; Source: NYSDEC "Technical And Administrative Guidance Memorandum" (TAGM) HWR-94-4046.
3. N/L = Parameter Not Listed in NYSDEC TAGM HWR-94-4046.
4. N/S = Parameter Listed in NYSDEC TAGM HWR-94-4046, but RSCO Not Specified.
5. Results in BOLD type indicate detected concentrations of parameter analyzed.
6. SHADING indicates results above the RSCO.
7. A value of R denotes unusable data as per the Data Usability Summary Report

TABLE - 1-3

Summary of Phase 1 SI
Soil Sample Analytical Data
TCL - Semi-VOC Analyses
Former Brown Manufacturing Site, Syracuse, New York

Parameter	RSCO	HB-9 (0.0'-0.5')	GP-2D (4.0'-5.7')	GP-5C (2.0'-4.0')	GP-8B (0.5'-2.0')	GP-13A (0.0'-0.5')	GP-16A (0.0'-0.5')	GP-17F (8.0'-10.0')	GP-28A (0.0'-0.5')	I-1Q (L=84',D=5')	I-2G (L=92',D=11')	I-4I (L=8',D=13')	I-5E (L=5',D=13')	I-6G (L=35',D=13')
In-Situ PID Screening	-	0.0	5.0	1.0	0.0	0.0	0.0	100.0	1.0	1.0	15.0	10.0	3.0	0.0
Headspace PID Screening	-	0.0	5.8	5.2	1.2	2.0	0.0	140.0	0.0	6.6	28.0	25.0	11.0	0.0
Acenaphthene	50.0	2,200	5,800	< 3,900	0,930	0.290	1,400	< 0.430	0.250	< 5,800	< 0,800	< 0,390	< 0,530	< 0,490
Acenaphthylene	41.0	0.720	2,600	< 3,900	0.330	0.520	0.880	< 0.430	0.220	< 5,800	< 0,800	< 0,390	< 0,530	< 0,490
Anthracene	50.0	5,800	13,000	< 3,900	2,500	0,980	3,900	0.230	0.880	< 5,800	< 0,800	< 0,390	< 0,530	< 0,490
Benzo (a) anthracene	0.224 or MDL	19,000	34,000	< 3,900	6,500	2,600	11,000	< 0.430	< 1,900	< 5,800	< 0,800	< 0,390	< 0,530	< 0,490
Benzo (a) pyrene	0.061 or MDL	6,500	24,000	< 3,900	3,100	1,600	7,500	< 0.430	< 1,900	< 5,800	< 0,800	< 0,390	< 0,530	0,340
Benzo (b) fluoranthene	1.1	9,900	43,000	< 3,900	5,300	2,700	12,000	< 0.430	< 1,900	< 5,800	< 0,800	< 0,390	< 0,530	< 0,490
Benzo (g,h,i) perylene	50.0	2,400	15,000	< 3,900	1,600	0,910	3,900	< 0.430	< 1,900	< 5,800	< 0,800	< 0,390	< 0,530	< 0,490
Benzo (k) fluoranthene	1.1	4,900	7,600	< 3,900	1,600	1,100	4,400	< 0.430	< 1,900	< 5,800	< 0,800	< 0,390	< 0,530	< 0,490
bis (2-Chloroethoxy) methane	N/L	< 2,400	< 1,900	< 3,900	< 1,900	< 0,360	< 1,800	< 0.430	< 1,900	< 5,800	< 0,800	< 0,390	< 0,530	< 0,490
bis (2-Chloroethyl) ether	N/L	< 2,400	< 1,900	< 3,900	< 1,900	< 0,360	< 1,800	< 0.430	< 1,900	< 5,800	< 0,800	< 0,390	< 0,530	< 0,490
bis (2-Ethylhexyl) phthalate	50.0	< 2,400	< 1,900	< 3,900	< 1,900	< 0,360	< 1,800	< 0.059	< 1,900	< 5,800	< 0,800	< 0,390	< 0,530	< 0,097
4-Bromophenylphenylether	N/L	< 2,400	< 1,900	< 3,900	< 1,900	< 0,360	< 1,800	< 0.430	< 1,900	< 5,800	< 0,800	< 0,390	< 0,530	< 0,490
Butylbenzylphthalate	50.0	< 2400	< 1,900	< 3,900	< 1,900	< 0,360	< 1,800	< 0.430	< 1,900	< 5,800	< 0,800	< 0,390	< 0,530	< 0,490
Carbazole	N/L	2,600	5,100	< 3,900	0,920	0.450	1,800	< 0.430	< 1,900	< 5,800	< 0,800	< 0,390	< 0,530	< 0,490
4-Chloro-3-methylphenol	0.240 or MDL	< 2,400	< 1,900	< 3,900	< 1,900	< 0,360	< 1,800	< 0.430	< 1,900	< 5,800	< 0,800	< 0,390	< 0,530	< 0,490
4-Chloroaniline	0.220 or MDL	< 2,400	< 1,900	< 3,900	< 1,900	< 0,360	< 1,800	< 0.430	< 1,900	< 5,800	< 0,800	< 0,390	< 0,530	< 0,490
2-Chloronaphthalene	N/L	< 2,400	< 1,900	< 3,900	< 1,900	< 0,360	< 1,800	< 0.430	< 1,900	< 5,800	< 0,800	< 0,390	< 0,530	< 0,490
2-Chlorophenol	0.8	< 2,400	< 1,900	< 3,900	< 1,900	< 0,360	< 1,800	< 0.430	< 1,900	< 5,800	< 0,800	< 0,390	< 0,530	< 0,490
4-Chlorophenylphenylether	N/L	< 2,400	< 1,900	< 3,900	< 1,900	< 0,360	< 1,800	< 0.430	< 1,900	< 5,800	< 0,800	< 0,390	< 0,530	< 0,490
Chrysene	0.4	12,000	28,000	< 3,900	4,800	1,900	9,200	< 0.430	2,500	< 5,800	< 0,800	< 0,390	< 0,530	< 0,490
Di-n-butylphthalate	8.1	< 2,400	< 1,900	< 3,900	0,270	< 0,360	< 1,800	< 0.430	< 1,900	< 5,800	< 0,800	< 0,390	< 0,530	< 0,490
Di-n-octylphthalate	50.0	< 2,400	< 1,900	< 3,900	< 1,900	< 0,360	< 1,800	< 0.430	< 1,900	< 5,800	< 0,800	< 0,390	< 0,530	< 0,490
Dibenzo (a,h) anthracene	0.014 or MDL	1,200	< 1,900	< 3,900	< 1,900	0,330	1,500	< 0.430	< 1,900	< 5,800	< 0,800	< 0,390	< 0,530	< 0,490
Dibenzofuran	6.2	2,100	6,900	< 3,900	0,740	0,240	1,100	< 0.430	0,300	< 5,800	< 0,800	< 0,390	< 0,530	< 0,490
1,2-Dichlorobenzene	N/L	< 2,400	< 1,900	< 3,900	< 1,900	< 0,360	< 1,800	< 0.430	< 1,900	< 5,800	< 0,800	< 0,390	< 0,530	< 0,490
1,3-Dichlorobenzene	N/L	< 2,400	< 1,900	< 3,900	< 1,900	< 0,360	< 1,800	< 0.430	< 1,900	< 5,800	< 0,800	< 0,390	< 0,530	< 0,490
1,4-Dichlorobenzene	N/L	< 2,400	< 1,900	< 3,900	< 1,900	< 0,360	< 1,800	< 0.430	< 1,900	< 5,800	< 0,800	< 0,390	< 0,530	< 0,490
3,3'-Dichlorobenzidine	N/S	< 2400	< 1,900	< 3,900	< 1,900	< 0,360	< 1,800	< 0.430	< 1,900	< 5,800	< 0,800	< 0,390	< 0,530	< 0,490
2,4-Dichlorophenol	0.4	< 12,000	< 1,900	< 3,900	< 1,900	< 0,360	< 1,800	< 0.430	< 1,900	< 5,800	< 0,800	< 0,390	< 0,530	< 0,490
Diethylphthalate	7.1	< 2,400	< 1,900	< 3,900	< 1,900	< 0,360	< 1,800	< 0.430	< 1,900	< 5,800	< 0,800	< 0,390	< 0,530	< 0,490
2,4-Dimethylphenol	N/L	< 2,400	< 1,900	< 3,900	< 1,900	< 0,360	< 1,800	< 0.430	< 1,900	< 5,800	< 0,800	< 0,390	< 0,530	< 0,490
Dimethylphthalate	2.0	< 2,400	< 1,900	< 3,900	< 1,900	< 0,360	< 1,800	< 0.430	< 1,900	< 5,800	< 0,800	< 0,390	< 0,530	< 0,490
2,4-Dinitrophenol	0.200 or MDL	< 2,400	< 9,400	< 19,000	< 9,700	< 1,800	< 8,900	< 2,100	< 9,500	< 29,000	< 4,000	< 1,900	< 2,600	< 2,500
2,4-Dinitrotoluene	N/L	< 2,400	< 1,900	< 3,900	< 1,900	< 0,360	< 1,800	< 0.430	< 1,900	< 5,800	< 0,800	< 0,390	< 0,530	< 0,490
2,6-Dinitrotoluene	1.0	< 2,400	< 1,900	< 3,900	< 1,900	< 0,360	< 1,800	< 0.430	< 1,900	< 5,800	< 0,800	< 0,390	< 0,530	< 0,490
Fluoranthene	50.0	20,000	72,000	< 3,900	7,400	6,600	13,000	0.130	2,400	7,800	< 0,800	< 0,390	< 0,530	< 0,490
Fluorene	50.0	2,900	9,200	< 3,900	1,200	0,430	1,700	< 0.430	0,310	< 5,800	< 0,800	< 0,390	< 0,530	< 0,490
Hexachlorobenzene	0.41	< 2,400	< 1,900	< 3,900	< 1,900	< 0,360	< 1,800	< 0.430	< 1,900	< 5,800	< 0,800	< 0,390	< 0,530	< 0,490
Hexachlorobutadiene	N/L	< 2,400	< 1,900	< 3,900	< 1,900	< 0,360	< 1,800	< 0.430	< 1,900	< 5,800	< 0,800	< 0,390	< 0,530	< 0,490
Hexachlorocyclopentadiene	N/L	< 2,400	< 1,900	< 3,900	< 1,900	< 0,360	< 1,800	< 0.430	< 1,900	< 5,800	< 0,800	< 0,390	< 0,530	< 0,490
Hexachloroethane	N/L	< 2,400	< 1,900	< 3,900	< 1,900	< 0,360	< 1,800	< 0.430	< 1,900	< 5,800	< 0,800	< 0,390	< 0,530	< 0,490
Indeno (1,2,3-cd) pyrene	3.2	2,500	12,000	< 3,900	1,600	0,870	4,700	< 0.430	< 1,900	< 5,800	< 0,800	< 0,390	< 0,530	< 0,490
Isophorone	4.40	< 2,400	< 1,900	< 3,900	< 1,900	< 0,360	< 1,800	< 0.430	< 1,900	< 5,800	< 0,800	< 0,390	< 0,530	< 0,490
2-Methyl-4,6-dinitrophenol	N/L	< 12,000	< 9,400	< 19,000	< 9,700	< 1,800	< 8,900	< 2,100	< 9,500	< 29,000	< 4,000	< 1,900	< 2,600	< 2,500
2-Methylnaphthalene	36.4	1,000	5,100	0,470	0,460	0,130	0,580	3,300	0,450	2,800	4,900	1,400	0,110	< 0,490
2-Methylphenol	0.100 or MDL	< 2,400	< 1,900	< 3,900	< 1,900	< 0,360	< 1,800	< 0.430	< 1,900	< 5,800	< 0,800	< 0,390	< 0,530	< 0,490
4-Methylphenol	0.9	< 2,400	< 1,900	< 3,900	< 1,900	< 0,360	< 1,800	< 0.430	< 1,900	< 5,800	< 0,800	< 0,390	< 0,530	< 0,490
Naphthalene	13.0	1,500	11,000	< 3,900	0,850	0,200	< 1,800	< 0.430	< 1,900	8,700	< 0,800	< 0,390	< 0,530	< 0,490
2-Nitroaniline	0.430 or MDL	< 12,000	< 9,400	< 19,000	< 9,700	< 1,800	< 8,900	< 2,100	< 9,500	< 29,000	< 4,000	< 1,900	< 2,600	< 2,500
3-Nitroaniline	0.500 or MDL	< 12,000	< 9,400	< 19,000	< 9,700	< 1,800	< 8,900	< 2,100	< 9,500	< 29,000	< 4,000	< 1,900	< 2,600	< 2,500
4-Nitroaniline	N/L	< 12,000	< 9,400	< 19,000	< 9,700	< 1,800	< 8,900	< 2,100	< 9,500	< 29,000	< 4,000	< 1,900	< 2,600	< 2,500
Nitrobenzene	0.200 or MDL	< 2,400	< 1,900	< 3,900	< 1,900	< 0,360	< 1,800	< 0.430	< 1,900	< 5,800	< 0,800	< 0,390	< 0,530	< 0,490
2-Nitrophenol	0.330 or MDL	< 2,400	< 1,900	< 3,900	< 1,900	< 0,360	< 1,800	< 0.430	< 1,900	< 5,800	< 0,800	< 0,390	< 0,530	< 0,490
4-Nitrophenol	0.100 or MDL	< 12,000	< 9,400	< 19,000	< 9,700	< 1,800	< 8,900	< 2,100	< 9,500	< 29,000	< 4,000	< 1,900	< 2,600	< 2,500
n-Nitrosodi-n-propylamine	N/L	< 2,400	< 1,900	< 3,900	< 1,900	< 0,360	< 1,800	< 0.430	< 1,900	< 5,800	< 0,800	< 0,390	< 0,530	< 0,490
n-Nitrosodiphenylamine	N/L	< 2,400	< 1,900	< 3,900	< 1,900	< 0,360	< 1,800	< 0.430	< 1,900	< 5,800	< 0,800	< 0,390	< 0,530	< 0,490
2,2'-Oxybis (1-Chloropropane)	N/L	< 2,400	< 1,900	< 3,900	< 1,900	< 0,360	< 1,800	< 0.430	< 1,900	< 5,800	< 0,800	< 0,390	< 0,530	< 0,490
Pentachlorophenol	1.0 or MDL	< 12,000	< 9,400	< 19,000	< 9,700	< 1,800	< 8,900	< 2,100	< 9,500	< 29,000	< 4,000	< 1,900	< 2,600	< 2,500
Phenanthrene	50.0	26,000	92,000	1,700	8,000	4,800	13,000	1,300	4,600	< 5,800	3,500	< 0,390	0,390	0,490
Phenol	0.03 or MDL	< 2,400	< 1,900	< 3,900	< 1,900	< 0,360	< 1,800	< 0.430	< 1,900	< 5,800	< 0,800	< 0,390	< 0,530	< 0,490
Pyrene	50.0	35,000	97,000	< 3,900	12,000	9,400	28,000	< 0.430	9,500	< 5,800	< 0,800	< 0,390	< 0,530	< 0,490
1,2,4-Trichlorobenzene	N/L	< 2,400	< 1,900	< 3,900	< 1,900	< 0,360	< 1,800	< 0.430	< 1,900	< 5,800	< 0,800	< 0,390	< 0,530	< 0,490
2,4,5-Trichlorophenol	0.1	< 12,000	< 9,400	< 19,000	< 9,700	< 1,800	< 8,900	< 2,100	< 9,500	< 29,000	< 4,000	< 1,900	< 2,600	< 2,500
2,4,6-Trichlorophenol	N/L	< 2,400	< 1,900	< 3,900	< 1,900	< 0,360	< 1,800	< 0.430	< 1,900	< 5,800	< 0,800	< 0,390	< 0,530	< 0,490

Notes:
1. Results expressed in milligrams per kilogram (mg/kg) = parts per million (ppm).
2. RSCO = Recommended Soil Cleanup Objective; Source: NYSDEC "Technical And Administrative Guidance Memorandum" (TAGM) HWR-94-4046.
3. MDL = Method Detection Limit.
4. N/L = Parameter Not Listed in NYSDEC TAGM HWR-94-4046.
5. N/S = Parameter Listed in NYSDEC TAGM HWR-94-4046, but RSCO Not Specified.
6. Results in BOLD type indicate detected concentrations of parameter analyzed.
7. SHADING indicates results above the RSCO.

TABLE - 1-4

Summary of Phase 1 SI
Soil Sample Analytical Data
TAL Metals Analyses
Former Brown Manufacturing Site, Syracuse, New York

Parameter	Eastern USA Background (ppm)	RSCO	HB-9 (0.0'-0.5')	GP-2D (4.0'-5.7')	GP-5C (2.0'-4.0')	GP-8B (0.5'-2.0')	GP-13A (0.0'-0.5')	GP-16A (0.0'-0.5')	GP-17F (8.0'-10.0')	GP-25A (0.0'-0.5')	T-1Q (L=84',D=5')	T-2G (L=92',D=11')	T-4I (L=8',D=13')	T-5E (L=5',D=13')	T-6G (L=35',D=13')
Aluminum	33000	SB	6760	6310	4540	8640	7650	7810	10500	7230	5940	2460	5730	4740	4560
Antimony	N/A	SB	< 4.3	< 3.4	< 3.5	< 3.6	< 3.2	< 3.2	< 3.8	< 3.4	< 5.3	< 1.8	< 2.0	< 4.8	< 4.4
Arsenic	3 - 12 *	7.5 or SB	21.5	7.2	6.9	22.4	19.0	20.3	12.6	R	29.3	R	R	R	9.7
Barium	15 - 600	300 or SB	456	170	68	201	258	343	120	2150	10300	34.5	95.3	40.9	56.4
Beryllium	0 - 1.75	0.16 or SB	< 0.86	< 0.67	< 0.7	0.98	0.74	0.88	1	1	0.93	< 0.36	< 0.39	< 0.95	< 0.88
Cadmium	0.1 - 1	1 or SB	2	1.70	< 1.2	2.30	2	2.50	2	2.7	14.7	1.50	2.4	3	2
Calcium	130 - 35000 *	SB	124000	169000	66800	42300	107000	104000	13400	34200	44400	80700	70700	139000	54500
Chromium	1.5 - 40 *	10 or SB	25.7	22.6	9.2	16.6	17.8	22.1	17.9	33.2	156	2.7	6.1	8.9	8.6
Cobalt	2.5 - 60 *	30 or SB	< 5.7	5.1	5.7	7.4	6.8	7.20	10.3	6.2	6.1	< 2.40	2.9	< 6.3	< 0.59
Copper	1 - 50	25 or SB	46.6	35.8	43.3	66.7	54.5	87.8	19.9	99.5	536	5	11.6	19.3	11.7
Iron	2000 - 550000	2000 or SB	15800	11300	12700	17500	15900	22400	19900	27300	27700	3540	7650	12800	9210
Lead	200 - 500 **	SB	107	243	115	243	230	320	48.1	2460	641	31.2	56.4	R	R
Magnesium	100 - 5000	SB	17100	25700	19400	6550	13800	16600	6240	7310	8550	9630	11700	17300	9090
Manganese	50 - 5000	SB	309	253	232	294	380	359	450	285	545	82.4	197	302	163
Mercury	0.001 - 0.2	0.1	R	R	R	R	R	R	< 1.3	R	< 1.8	3.9	< 1.3	< 1.6	< 1.5
Nickel	0.5 - 25	13 or SB	29.3	21.7	13.9	21	22.3	22.3	23.2	426	342	3.7	8.2	15.5	12.1
Potassium	8500 - 43000 *	SB	920	1160	792	1060	1150	1330	1210	1320	922	407	642	890	562
Selenium	0.1 - 3.9	2 or SB	5.4	7.1	5.8	7.5	5	8.1	5.2	5.2	13.5	3	5.4	< 1.6	4.7
Silver	N/A	SB	< 2.9	< 2.2	< 2.3	< 2.3	< 2.2	< 2.1	< 2.6	< 2.3	R	R	R	R	R
Sodium	6000 - 8000	SB	422	< 225	233	249	215	238	< 256	< 227	1220	< 241	< 283	< 317	< 294
Thallium	N/A	SB	< 5.4	< 2.2	< 2.3	4.5	2.2	< 2.1	< 2.6	< 2.3	< 3.5	< 2.4	< 2.6	< 3.2	< 2.9
Vanadium	1 - 300	150 or SB	22.6	17.7	17.2	24.0	19.2	21.7	19.3	15.1	14.2	4.5	7.7	14.5	14.2
Zinc	9 - 50	20 or SB	205	246	112	229	184	323	58.4	234	686	29.3	74	37.7	52.9

Notes:

1. Results expressed in milligrams per kilogram (mg/kg) = parts per million (ppm).
2. RSCO = Recommended Soil Cleanup Objective; Source: NYSDEC "Technical And Administrative Guidance Memorandum" (TAGM) HWR-94-4046.
3. (*) = New York State Background Level.
4. (**) = Background levels for lead vary widely; Average background levels in metropolitan areas or near highways typically range from 200-500 ppm.
5. N/S = Parameter Listed in NYSDEC TAGM HWR-94-4046, but RSCO Not Specified.
6. Results in BOLD type indicate detected concentrations of parameter analyzed.
7. SHADING indicates results above the RSCO, Eastern USA Background Level, or New York State Background Level.
8. A value of R denotes unusable data as per the Data Usability Summary Report

TABLE - 2-1

Summary of Phase 2A SI
Soil Sample Analytical Data
TCL - VOC Analyses

Former Brown Manufacturing Site - Syracuse, New York

Parameter	RSCO	T8 Oil on GW
In-Situ PID Screening	-	3.0
Headspace PID Screening	-	130
Acetone	0.2	< 34.0
Benzene	0.06	< 34.0
Bromodichloromethane	N/L	< 34.0
Bromoform	N/L	< 34.0
Bromomethane	N/L	< 34.0
2-Butanone	0.3	< 34.0
Carbon Disulfide	2.7	< 34.0
Carbon Tetrachloride	0.6	< 34.0
Chlorobenzene	1.7	< 34.0
Chloroethane	1.9	< 34.0
Chloroform	0.3	< 34.0
Chloromethane	N/L	< 34.0
Dibromochloromethane	N/S	< 34.0
1,1-Dichloroethane	0.2	< 34.0
1,2-Dichloroethane	0.1	< 34.0
1,1-Dichloroethene	0.4	< 34.0
cis-1,2-Dichloroethene	N/L	< 34.0
trans-1,2-Dichloroethene	0.3	< 34.0
1,2-Dichloropropane	N/L	< 34.0
cis-1,3-Dichloropropene	N/L	< 34.0
trans-1,3-Dichloropropene	N/L	< 34.0
Ethylbenzene	N/L	< 34.0
2-Hexanone	N/L	< 34.0
Methylene Chloride	0.1	**9.7**
4-Methyl-2-Pentanone	1.0	< 34.0
Styrene	N/L	< 34.0
1,1,2,2-Tetrachloroethane	0.6	< 34.0
Tetrachloroethene	1.4	< 34.0
Toluene	1.5	< 34.0
1,1,1-Trichloroethane	0.8	< 34.0
1,1,2-Trichloroethane	N/L	< 34.0
Trichloroethene	0.7	< 34.0
Vinyl Chloride	0.2	< 34.0
m-Xylene, p-Xylene	1.2	< 34.0
o-Xylene	1.2	< 34.0

Notes:
1. All values expressed in parts per million (ppm).
2. RSCO = Recommended Soil Cleanup Objective; Source: NYSDEC "Technical And Administrative Guidance Memorandum" (TAGM) HWR-94-4046.
3. N/L = Parameter Not Listed in NYSDEC TAGM HWR-94-4046.
4. N/S = Parameter Listed in NYSDEC TAGM HWR-94-4046, but RSCO Not Specified.
5. Results in BOLD type indicate detected concentrations of parameter analyzed.
6. SHADING indicates results above the RSCO.

TABLE - 2-2

Summary of Phase 2A SI
Soil Sample Analytical Data
TCL - Semi-VOC Analyses

Former Brown Manufacturing Site - Syracuse, New York

Parameter	RSCO	T7-2 (L=23',D=3')	T7-4 (L=60',D=14')	T8 Oil on GW	T8-2 (L=100',D=13')	T8-2 Dup. (L=100',D=13')	T9-1 (L=5',D=13')	T10-1 (L=9',D=12')	T11-1 (L=11',D=12')	T12-1 (L=5',D=11')	T13-1 (L=5',D=10')	T14-1 (L=5',D=10')	T15-1 (L=5',D=5')
In-Situ PID Screening	-	1.0	0.0	3.0	10	10	0.0	3.0	2.5	1.0	5.0	0.0	1.0
Headspace PID Screening	-	6.0	0.0	130	40	46	1.8	2.0	4.4	2.0	10.3	1.0	3.7
Phenol	0.03 or MDL	< 4	< 0.39	< 100	< 0.39	< 0.42	< 0.42	< 0.48	< 4.1	< 42	< 35	< 0.53	< 40
bis (2-Chloroethyl) ether	N/L	< 4	< 0.39	< 100	< 0.39	< 0.42	< 0.42	< 0.48	< 4.1	< 42	< 35	< 0.53	< 40
2-Chlorophenol	0.8	< 4	< 0.39	< 100	< 0.39	< 0.42	< 0.42	< 0.48	< 4.1	< 42	< 35	< 0.53	< 40
1,3-Dichlorobenzene	N/L	< 4	< 0.39	< 100	< 0.39	< 0.42	< 0.42	< 0.48	< 4.1	< 42	< 35	< 0.53	< 40
1,4-Dichlorobenzene	N/L	< 4	< 0.39	< 100	< 0.39	< 0.42	< 0.42	< 0.48	< 4.1	< 42	< 35	< 0.53	< 40
1,2-Dichlorobenzene	N/L	< 4	< 0.39	< 100	< 0.39	< 0.42	< 0.42	< 0.48	< 4.1	< 42	< 35	< 0.53	< 40
2-Methylphenol	0.100 or MDL	< 4	< 0.39	< 100	< 0.39	< 0.42	< 0.42	< 0.48	< 4.1	< 42	< 35	< 0.53	< 40
2,2'-Oxybis (1-Chloropropane)	N/L	< 4	< 0.39	< 100	< 0.39	< 0.42	< 0.42	< 0.48	< 4.1	< 42	< 35	< 0.53	< 40
4-Methylphenol	0.9	< 4	< 0.39	< 100	< 0.39	< 0.42	< 0.42	< 0.48	< 4.1	< 42	< 35	< 0.53	< 40
n-Nitrosodi-n-propylamine	N/L	< 4	< 0.39	< 100	< 0.39	< 0.42	< 0.42	< 0.48	< 4.1	< 42	< 35	< 0.53	< 40
Hexachloroethane	N/L	< 4	< 0.39	< 100	< 0.39	< 0.42	< 0.42	< 0.48	< 4.1	< 42	< 35	< 0.53	< 40
Nitrobenzene	0.200 or MDL	< 4	< 0.39	< 100	< 0.39	< 0.42	< 0.42	< 0.48	< 4.1	< 42	< 35	< 0.53	< 40
Isophorone	4.40	< 4	< 0.39	< 100	< 0.39	< 0.42	< 0.42	< 0.48	< 4.1	< 42	< 35	< 0.53	< 40
2-Nitrophenol	0.330 or MDL	< 4	< 0.39	< 100	< 0.39	< 0.42	< 0.42	< 0.48	< 4.1	< 42	< 35	< 0.53	< 40
2,4-Dimethylphenol	N/L	< 4	< 0.39	< 100	< 0.39	< 0.42	< 0.42	< 0.48	< 4.1	< 42	< 35	< 0.53	< 40
bis (2-Chloroethoxy) methane	N/L	< 4	< 0.39	< 100	< 0.39	< 0.42	< 0.42	< 0.48	< 4.1	< 42	< 35	< 0.53	< 40
2,4-Dichlorophenol	0.4	< 4	< 0.39	< 100	< 0.39	< 0.42	< 0.42	< 0.48	< 4.1	< 42	< 35	< 0.53	< 40
1,2,4-Trichlorobenzene	N/L	< 4	< 0.39	< 100	< 0.39	< 0.42	< 0.42	< 0.48	< 4.1	< 42	< 35	< 0.53	< 40
Naphthalene	13.0	< 4.6	< 0.39	**200**	< 0.39	< 0.42	< 0.42	**0.50**	< 4.1	< 42	< 35	< 0.53	< 40
4-Chloroaniline	0.220 or MDL	< 4	< 0.39	< 100	< 0.39	< 0.42	< 0.42	< 0.48	< 4.1	< 42	< 35	< 0.53	< 40
Hexachlorobutadiene	N/L	< 4	< 0.39	< 100	< 0.39	< 0.42	< 0.42	< 0.48	< 4.1	< 42	< 35	< 0.53	< 40
4-Chloro-3-methylphenol	0.240 or MDL	< 4	< 0.39	< 100	< 0.39	< 0.42	< 0.42	< 0.48	< 4.1	< 42	< 35	< 0.53	< 40
2-Methylnaphthalene	36.4	2.2	< 0.39	**81**	**1.20**	**1.20**	< 0.42	< 0.48	< 4.1	< 42	< 35	< 0.53	< 40
Hexachlorocyclopentadiene	N/L	< 4	< 0.39	< 100	< 0.39	< 0.42	< 0.42	**0.29**	< 4.1	< 42	< 35	< 0.53	< 40
2,4,6-Trichlorophenol	N/L	< 4	< 0.39	< 100	< 0.39	< 0.42	< 0.42	< 0.48	< 4.1	< 42	< 35	< 0.53	< 40
2,4,5-Trichlorophenol	0.1	< 40	< 0.39	< 1,000	< 3.90	< 4.20	< 4.20	< 4.80	< 41	< 420	< 350	< 5.30	< 400
2-Chloronaphthalene	N/L	< 4	< 0.39	< 100	< 0.39	< 0.42	< 0.42	< 0.48	< 4.1	< 42	< 35	< 0.53	< 40
2-Nitroaniline	0.430 or MDL	< 40	< 0.39	< 1,000	< 3.90	< 4.20	< 4.20	< 4.80	< 41	< 420	< 350	< 5.30	< 400
Dimethylphthalate	2.0	< 4	< 0.39	< 100	< 0.39	< 0.42	< 0.42	< 0.48	< 4.1	< 42	< 35	< 0.53	< 40
Acenaphthylene	41.0	**1.2**	< 0.39	< 100	< 0.39	< 0.42	< 0.42	**0.66**	< 4.1	< 42	< 35	< 0.53	< 40
2,6-Dinitrotoluene	1.0	< 4	< 0.39	< 100	< 0.39	< 0.42	< 0.42	< 0.48	< 4.1	< 42	< 35	< 0.53	< 40
3-Nitroaniline	0.500 or MDL	< 40	< 3.90	< 1,000	< 3.90	< 4.20	< 4.20	< 4.80	< 41	< 420	< 350	< 5.30	< 400
Acenaphthene	50.0	**4.6**	< 0.39	< 100	< 0.39	< 0.42	< 0.42	**0.50**	< 4.1	< 42	< 35	< 0.53	< 40
2,4-Dinitrophenol	0.200 or MDL	< 40	< 3.90	< 1,000	< 3.90	< 4.20	< 4.20	< 4.80	< 41	< 420	< 350	< 5.30	< 400
4-Nitrophenol	0.100 or MDL	< 40	< 3.90	< 1,000	< 3.90	< 4.20	< 4.20	< 4.80	< 41	< 420	< 350	< 5.30	< 400
Dibenzofuran	6.2	**3.6**	< 0.39	< 100	< 0.39	< 0.42	< 0.42	**< 0.39**	< 4.1	< 42	< 35	< 0.53	< 40
2,4-Dinitrotoluene	N/L	< 4	< 0.39	< 100	< 0.39	< 0.42	< 0.42	< 0.48	< 4.1	< 42	< 35	< 0.53	< 40
Diethylphthalate	7.1	< 4	< 0.39	< 100	< 0.39	< 0.42	< 0.42	< 0.48	< 4.1	< 42	< 35	< 0.53	< 40
4-Chlorophenylphenylether	N/L	< 4	< 0.39	< 100	< 0.39	< 0.42	< 0.42	< 0.48	< 4.1	< 42	< 35	< 0.53	< 40
Fluorene	50.0	**6.3**	< 0.39	< 100	**0.17**	< 0.42	< 0.42	**0.70**	< 4.1	< 42	< 35	< 0.53	< 40
4-Nitroaniline	N/L	< 40	< 3.90	< 1,000	< 3.90	< 4.20	< 4.20	< 4.80	< 41	< 420	< 350	< 5.30	< 400
2-Methyl-4,6-dinitrophenol	N/L	< 20	< 2.00	< 500	< 2.00	< 2.10	< 2.40	< 20	< 210	< 170	< 2.70	< 200
n-Nitrosodiphenylamine	N/L	< 4	< 0.39	< 100	< 0.39	< 0.42	< 0.42	< 0.48	< 4.1	< 42	< 35	< 0.53	< 40
4-Bromophenylphenylether	N/L	< 4	< 0.39	< 100	< 0.39	< 0.42	< 0.42	< 0.48	< 4.1	< 42	< 35	< 0.53	< 40
Hexachlorobenzene	0.41	< 4	< 0.39	< 100	< 0.39	< 0.42	< 0.42	< 0.48	< 4.1	< 42	< 35	< 0.53	< 40
Pentachlorophenol	1.0 or MDL	< 7.9	< 0.78	< 200	< 0.78	< 0.83	< 0.83	R	R	< 83	< 70	< 1.10	< 79
Phenanthrene	50.0	**32**	< 0.39	**18**	**0.670**	< 0.42	< 0.42	**5.3**	< 4.1	< 42	< 35	< 0.53	**22**
Anthracene	50.0	**12**	< 0.39	< 100	< 0.39	< 0.42	< 0.42	< 0.48	< 4.1	< 42	< 35	< 0.53	**4.8**
Carbazole	N/L	**3.4**	< 0.39	< 100	< 0.39	< 0.42	< 0.42	< 0.48	< 4.1	< 42	< 35	< 0.53	< 40
Di-n-butylphthalate	8.1	< 4	< 0.39	< 100	< 0.39	< 0.42	< 0.42	< 0.48	< 4.1	< 42	< 35	< 0.53	< 40
Fluoranthene	50.0	**25**	< 0.39	< 100	< 0.39	< 0.42	< 0.42	< 0.48	< 4.1	< 42	< 35	< 0.53	**27**
Pyrene	50.0	**42**	< 0.39	< 100	< 0.39	< 0.42	< 0.42	< 0.48	< 4.1	< 42	< 35	< 0.53	**29**
Butylbenzylphthalate	50.0	< 4	< 0.39	< 100	< 0.39	< 0.42	< 0.42	< 0.48	< 4.1	< 42	< 35	< 0.53	< 40
3,3'-Dichlorobenzidine	N/S	< 4	< 0.39	< 100	< 0.39	< 0.42	< 0.42	< 0.48	< 4.1	< 42	< 35	< 0.53	< 40
Benzo (a) anthracene	0.224 or MDL	**19**	< 0.39	< 100	< 0.39	< 0.42	< 0.42	< 0.48	< 4.1	< 42	< 35	< 0.53	< 40
Chrysene	0.4	**17**	< 0.39	< 100	< 0.39	< 0.42	< 0.42	< 0.48	< 4.1	< 42	< 35	< 0.53	**13**
bis (2-Ethylhexyl) phthalate	50.0	< 4	< 0.39	< 100	< 0.39	< 0.42	< 0.42	< 0.48	< 4.1	< 42	< 35	< 0.53	< 40
Di-n-octylphthalate	50.0	< 4	< 0.39	< 100	< 0.39	< 0.42	< 0.42	< 0.48	< 4.1	< 42	< 35	< 0.53	< 40
Benzo (b) fluoranthene	1.1	**17**	< 0.39	< 100	< 0.39	< 0.42	< 0.42	< 0.48	< 4.1	< 42	< 35	< 0.53	**14**
Benzo (k) fluoranthene	1.1	**7.9**	< 0.39	< 100	< 0.39	< 0.42	< 0.42	< 0.48	< 4.1	< 42	< 35	< 0.53	**4.2**
Benzo (a) pyrene	0.061 or MDL	**18**	< 0.39	< 100	< 0.39	< 0.42	< 0.42	**1.4**	< 4.1	< 42	< 35	< 0.53	**9.9**
Indeno (1,2,3-cd) pyrene	3.2	**7.6**	< 0.39	< 100	< 0.39	< 0.42	< 0.42	**0.47**	< 4.1	< 42	< 35	< 0.53	< 40
Dibenzo (a,h) anthracene	0.014 or MDL	< 4	< 0.39	< 100	< 0.39	< 0.42	< 0.42	< 0.48	< 4.1	< 42	< 35	< 0.53	< 40
Benzo (g,h,i) perylene	50.0	**7.6**	< 0.39	< 100	< 0.39	< 0.42	< 0.42	**0.41**	< 4.1	< 42	< 35	< 0.53	< 40

Notes:
1. All values expressed in parts per million (ppm).
2. RSCO = Recommended Soil Cleanup Objective; Source: NYSDEC "Technical And Administrative Guidance Memorandum" (TAGM) HWR-94-4046.
3. MDL = Method Detection Limit.
4. N/L = Parameter Not Listed in NYSDEC TAGM HWR-94-4046.
5. N/S = Parameter Listed in NYSDEC TAGM HWR-94-4046, but RSCO Not Specified.
6. Results in BOLD type indicate detected concentrations of parameter analyzed.
7. SHADING indicates results above the RSCO.
8. A value of R denotes unusable data as per the Data Usability Summary Report

TABLE 2-3

Summary of Phase 2A SI
Soil Sample Analytical Data
PCBs - Polychlorinated Biphenyls Analyses

Former - Brown Manufacturing Site - Syracuse, New York

Parameter	Surface RSCO	Subsurface RSCO	T7-1 (L=11',D=4')	T7-2 (L=23',D=3')	T7-3 (L=52',D=3')	T7-4 (L=60',D=14')	T8-1 (L=35',D=13')	T8-2 (L=100',D=13')	T8-2 Dup. (L=100',D=13')	T9-1 (L=5',D=13')
In-Situ PID	-	-	1.5	1.0	1.5	0.0	3.0	10	10	0.0
Headspace PID	-	-	14.0	6.0	13.0	0.0	130	40	46	1.8
PCB Aroclor 1016	1.0	10	< 0.100	< 0.100	< 0.090	< 0.090	< 0.110	< 0.090	< 0.100	< 0.100
PCB Aroclor 1221	1.0	10	< 0.100	< 0.100	< 0.090	< 0.090	< 0.110	< 0.090	< 0.100	< 0.100
PCB Aroclor 1232	1.0	10	< 0.100	< 0.100	< 0.090	< 0.090	< 0.110	< 0.090	< 0.100	< 0.100
PCB Aroclor 1242	1.0	10	< 0.100	< 0.100	< 0.090	< 0.090	< 0.110	< 0.090	< 0.100	< 0.100
PCB Aroclor 1248	1.0	10	< 0.100	< 0.100	**4.453**	< 0.090	< 0.110	< 0.090	< 0.100	< 0.100
PCB Aroclor 1254	1.0	10	**2.210**	**2.400**	**1.585**	< 0.090	< 0.110	< 0.090	< 0.100	< 0.100
PCB Aroclor 1260	1.0	10	< 0.100	< 0.100	< 0.090	< 0.090	< 0.110	< 0.090	< 0.100	< 0.100
		Total PCBs =	**2.210**	**2.400**	**6.038**	< 0.090	< 0.110	< 0.090	< 0.100	< 0.100

Notes:
1. All values expressed in parts per million (ppm).
2. RSCO = Recommended Soil Cleanup Objective; Source: NYSDEC "Technical And Administrative Guidance Memorandum" (TAGM) HWR-94-4046.
3. Results in BOLD type indicate detected concentrations of parameter analyzed.
4. SHADING indicates results above the RSCO.

Summary of Phase 2A SI
Soil Sample Analytical Data
PCBs - Polychlorinated Biphenyls Analyses

Former - Brown Manufacturing, Site - Syracuse, New York

Parameter	Surface RSCO	Subsurface RSCO	T9-2 (L=60',D=11')	T10-1 (L=9',D=12')	T10-2 (L=29',D=12')	T10-3 (L=45',D=12')	T11-1 (L=11',D=12')	T11-2 (L=37',D=13')	T11-3 (L=45',D=10')	T11-4 (L=60',D=10')
In-Situ PID	-	-	1.0	3.0	1.5	1.0	2.5	15	60	50
Headspace PID	-	-	3.5	2.0	1.6	2.2	4.4	32	84	89
PCB Aroclor 1016	1.000	10.000	< 0.100	< 0.120	< 0.100	< 0.090	< 0.090	< 0.100	< 0.100	< 0.100
PCB Aroclor 1221	1.000	10.000	< 0.100	< 0.120	< 0.100	< 0.090	< 0.090	< 0.100	< 0.100	< 0.100
PCB Aroclor 1232	1.000	10.000	< 0.100	< 0.120	< 0.100	< 0.090	< 0.090	< 0.100	< 0.100	< 0.100
PCB Aroclor 1242	1.000	10.000	< 0.100	< 0.120	< 0.100	< 0.090	< 0.090	< 0.100	< 0.100	< 0.100
PCB Aroclor 1248	1.000	10.000	< 0.100	< 0.120	< 0.100	< 0.090	< 0.090	< 0.100	< 0.100	< 0.100
PCB Aroclor 1254	1.000	10.000	< 0.100	< 0.120	< 0.100	< 0.090	< 0.090	< 0.100	< 0.100	< 0.100
PCB Aroclor 1260	1.000	10.000	< 0.100	< 0.120	< 0.100	< 0.090	< 0.090	< 0.100	< 0.100	< 0.100
		Total PCBs =	< 0.100	< 0.120	< 0.100	< 0.090	< 0.000	< 0.100	< 0.100	< 0.100

Notes:
1. All values expressed in parts per million (ppm).
2. RSCO = Recommended Soil Cleanup Objective; Source: NYSDEC "Technical And Administrative Guidance Memorandum" (TAGM) HWR-94-4046.
3. Results in BOLD type indicate detected concentrations of parameter analyzed.
4. SHADING indicates results above the RSCO.

Summary of Phase 2A SI
Soil Sample Analytical Data
PCBs - Polychlorinated Biphenyls Analyses

Former - Brown Manufacturing Site - Syracuse, New York

Parameter	Surface RSCO	Subsurface RSCO	T12-1 (L=5',D=11')	T12-2 (L=35',D=11')	T12-3 (L=65',D=11')	T13-1 (L=5',D=10')	T13-2 (L=35',D=10')	T14-1 (L=5',D=10')	T14-2 (L=15',D=10')	T15-1 (L=5',D=5')	T15-2 (L=35',D=4')
In-Situ PID	-	-	1.0	15	25	5.0	0.0	0.0	0.0	1.0	1.0
Headspace PID	-	-	2.0	29	40	10.3	0.0	1.0	1.4	3.7	2.8
PCB Aroclor 1016	1.000	10.000	< 0.100	< 0.090	< 0.090	< 0.090	< 0.100	< 0.130	< 0.110	< 0.100	< 0.100
PCB Aroclor 1221	1.000	10.000	< 0.100	< 0.090	< 0.090	< 0.090	< 0.100	< 0.130	< 0.110	< 0.100	< 0.100
PCB Aroclor 1232	1.000	10.000	< 0.100	< 0.090	< 0.090	< 0.090	< 0.100	< 0.130	< 0.110	< 0.100	< 0.100
PCB Aroclor 1242	1.000	10.000	< 0.100	< 0.090	< 0.090	< 0.090	< 0.100	< 0.130	< 0.110	< 0.100	< 0.100
PCB Aroclor 1248	1.000	10.000	< 0.100	< 0.090	< 0.090	< 0.090	< 0.100	< 0.130	< 0.110	< 0.100	< 0.100
PCB Aroclor 1254	1.000	10.000	< 0.100	< 0.090	< 0.090	< 0.090	< 0.100	< 0.130	< 0.110	**1.480**	**1.120**
PCB Aroclor 1260	1.000	10.000	< 0.100	< 0.090	< 0.090	< 0.090	< 0.100	< 0.130	< 0.110	< 0.100	< 0.100
Total PCBs =			< 0.100	< 0.090	< 0.090	< 0.090	< 0.100	< 0.130	< 0.110	**1.480**	**1.120**

Notes:
1. All values expressed in parts per million (ppm).
2. RSCO = Recommended Soil Cleanup Objective; Source: NYSDEC "Technical And Administrative Guidance Memorandum" (TAGM) HWR-94-4046.
3. Results in BOLD type indicate detected concentrations of parameter analyzed.
4. SHADING indicates results above the RSCO.

Summary of Phase 2A SI Soil Sample Analytical Data
TPH - Gas Chromatography Product ID Analyses

Former Brown Manufacturing Site - Syracuse, New York

Parameter	T7-1 (L=11',D=4')	T7-2 (L=23',D=3')	T7-3 (L=52',D=3')	T7-4 (L=60',D=14')	T8-1 (L=35',D=13')	T8 Oil on GW	T8-2 (L=100',D=13')	T8-2 Dup. (L=100',D=13')	T9-1 (L=5',D=13')
In-Situ PID	1.5	1.0	1.5	0.0	3.0	-	10	10	0.0
Headspace PID	14.0	6.0	13.0	0.0	130	-	40	46	1.8
Gasoline Range	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fuel Oil #1/Kerosene Range	< 4.0	< 3.9	< 3.8	< 3.9	< 4.6	< 1000	< 3.8	< 4.1	< 4.1
Fuel Oil #2/Diesel Range	< 4.0	< 3.9	< 3.8	< 3.9	**Detected**	**Detected**	**Detected**	**Detected**	< 4.1
Lubricating/Insulating/Hydraulic Range	**Detected**	**Detected**	**Detected**	ND	**Detected**	**Detected**	**Detected**	**Detected**	**Detected**
Unidentified Hydrocarbons	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Petroleum Hydrocarbons	**Detected**	**Detected**	**Detected**	ND	**Detected**	**Detected**	**Detected**	**Detected**	**Detected**

Notes:
1. All values expressed in parts per million (ppm).
2. BOLD type indicates detected parameters.

Summary of Phase 2A SI Soil Sample Analytical Data
TPH - Gas Chromatography Product ID Analyses

Former Brown Manufacturing Site - Syracuse, New York

Parameter	T9-2 (L=60',D=11')	T10-1 (L=9',D=12')	T10-2 (L=29',D=12')	T10-3 (L=45',D=12')	T11 Oil in Pipe	T11-1 (L=11',D=12')	T11-2 (L=37',D=13')	T11-3 (L=45',D=10')	T11-4 (L=60',D=10')
In-Situ PID	1.0	3.0	1.5	1.0	-	2.5	15	60	50
Headspace PID	3.5	2.0	1.6	2.2	-	4.4	32	84	89
Gasoline Range	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fuel Oil #1/Kerosene Range	< 3.9	< 4.8	< 4.3	< 3.8	< 1000	< 4.0	< 4.0	< 4.2	< 4.1
Fuel Oil #2/Diesel Range	< 3.9	< 4.8	< 4.3	< 3.8	< 1000	< 4.0	Detected	Detected	Detected
Lubricating/Insulating/Hydraulic Range	Detected	Detected	Detected	Detected	Detected	Detected	Detected	Detected	Detected
Unidentified Hydrocarbons	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Petroleum Hydrocarbons	Detected	Detected	Detected	Detected	Detected	Detected	Detected	Detected	Detected

Notes:
1. All values expressed in parts per million (ppm).
2. BOLD type indicates detected parameters.

Summary of Phase 2A Si Soil Sample Analytical Data
TPH - Gas Chromatography Product ID Analyses

Former Brown Manufacturing Site - Syracuse, New York

Parameter	T12-1 (L=5',D=11')	T12-2 (L=35',D=11')	T12-3 (L=65',D=11')	T13-1 (L=5',D=10')	T13-2 (L=35',D=10')	T14-1 (L=5',D=10')	T14-2 (L=15',D=10')	T15-1 (L=5',D=5')	T15-2 (L=35',D=4')
In-Situ PID	1.0	15	25	5.0	0.0	0.0	0.0	1.0	1.0
Headspace PID	2.0	29	40	10.3	0.0	1.0	1.4	3.7	2.8
Gasoline Range	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fuel Oil #1/Kerosene Range	< 4.1	< 3.7	< 3.9	< 3.5	< 3.9	< 5.3	< 4.5	< 3.9	< 3.9
Fuel Oil #2/Diesel Range	< 4.1	< 3.7	< 3.9	**Detected**	< 3.9	< 5.3	< 4.5	< 3.9	< 3.9
Lubricating/Insulating/Hydraulic Range	**Detected**	**Detected**	**Detected**	**Detected**	ND	ND	ND	**Detected**	**Detected**
Unidentified Hydrocarbons	ND	**Detected**	**Detected**	ND	ND	ND	ND	**Detected**	**Detected**
Total Petroleum Hydrocarbons	**Detected**	**Detected**	**Detected**	**Detected**	ND	ND	ND	**Detected**	**Detected**

Notes:
1. All values expressed in parts per million (ppm).
2. BOLD type indicates detected parameters.

TABLE - 3-1

Summary of Phase 2B SI Soil Sample Analytical Data
TCL - VOCs Analyses

Former Brown Manufacturing Site - Syracuse, New York

Parameter	RSCO	T16-1	T16-2	T17-1	T18-1	T19-1	T20-1
In-Situ PID Screening	-	1.1	0.0	0.0	0.0	0.0	0.0
Headspace PID Screening	-	145	19.3	10.6	19.5	4.1	1.7
Chloromethane	N/L	< 0.830	< 0.330	< 0.420	< 0.400	< 0.530	< 0.340
Vinyl Chloride	0.2	R	R	R	R	R	R
Bromomethane	N/L	< 0.830	< 0.330	< 0.420	< 0.400	< 0.530	< 0.340
Chloroethane	1.9	< 0.830	< 0.330	< 0.420	< 0.400	< 0.530	< 0.340
Acetone	0.2	**2.000**	**0.910**	**0.680**	**0.670**	**0.780**	**0.500**
1,1-Dichloroethene	0.4	< 0.830	< 0.330	< 0.420	< 0.400	< 0.530	< 0.340
Carbon Disulfide	2.7	< 0.830	< 0.330	< 0.420	< 0.400	< 0.530	< 0.340
Methylene Chloride	0.1	< 1.900	< 0.670	< 2.200	< 0.940	< 1.100	< 0.820
trans-1,2-Dichloroethene	0.3	< 0.830	< 0.330	< 0.420	< 0.400	< 0.530	< 0.340
1,1-Dichloroethane	0.2	< 0.830	< 0.330	< 0.420	< 0.400	< 0.530	< 0.340
2-Butanone	0.3	< 0.830	< 0.330	< 0.420	< 0.400	< 0.530	< 0.340
cis-1,2-Dichloroethene	N/L	< 0.830	< 0.330	< 0.420	< 0.400	< 0.530	< 0.340
Chloroform	0.3	**1.200**	**0.440**	< 0.140	**0.540**	**0.690**	**0.510**
1,1,1-Trichloroethane	0.8	< 0.830	< 0.330	< 0.420	< 0.400	< 0.530	< 0.340
Carbon Tetrachloride	0.6	< 0.830	< 0.330	< 0.420	< 0.400	< 0.530	< 0.340
Benzene	0.06	< 0.830	< 0.330	< 0.420	< 0.400	< 0.530	< 0.340
1,2-Dichloroethane	0.1	< 0.830	< 0.330	< 0.420	< 0.400	< 0.530	< 0.340
Trichloroethene	0.7	< 0.830	< 0.330	< 0.420	< 0.400	< 0.530	< 0.340
1,2-Dichloropropane	N/L	< 0.830	< 0.330	< 0.420	< 0.400	< 0.530	< 0.340
Bromodichloromethane	N/L	< 0.830	< 0.330	< 0.420	< 0.400	< 0.530	< 0.340
4-Methyl-2-Pentanone	1.0	< 0.830	< 0.330	< 0.420	< 0.400	< 0.530	< 0.340
cis-1,3-Dichloropropene	N/L	< 0.830	< 0.330	< 0.420	< 0.400	< 0.530	< 0.340
Toluene	1.5	< 0.830	< 0.330	< 0.420	< 0.400	< 0.530	< 0.340
trans-1,3-Dichloropropene	N/L	< 0.830	< 0.330	< 0.420	< 0.400	< 0.530	< 0.340
1,1,2-Trichloroethane	N/L	< 0.830	< 0.330	< 0.420	< 0.400	< 0.530	< 0.340
2-Hexanone	N/L	< 0.830	< 0.330	< 0.420	< 0.400	< 0.530	< 0.340
Tetrachloroethene	1.4	< 0.830	< 0.330	< 0.420	< 0.400	< 0.530	< 0.340
Dibromochloromethane	N/S	< 0.830	< 0.330	< 0.420	< 0.400	< 0.530	< 0.340
Chlorobenzene	1.7	< 0.830	< 0.330	< 0.420	< 0.400	< 0.530	< 0.340
Ethylbenzene	N/L	< 0.830	< 0.330	< 0.420	< 0.400	< 0.530	< 0.340
m-Xylene, p-Xylene	1.2	< 0.830	< 0.330	< 0.420	< 0.400	< 0.530	< 0.340
o-Xylene	1.2	< 0.830	< 0.330	< 0.420	< 0.400	< 0.100	< 0.110
Styrene	N/L	< 0.830	< 0.330	< 0.420	< 0.400	< 0.530	< 0.340
Bromoform	N/L	< 0.830	< 0.330	< 0.420	< 0.400	< 0.530	< 0.340
1,1,2,2-Tetrachloroethane	0.6	< 0.830	< 0.330	< 0.420	< 0.400	< 0.530	< 0.340

Notes:
1. All values expressed in parts per million (ppm).
2. RSCO = Recommended Soil Cleanup Objective; Source: NYSDEC "Technical And Administrative Guidance Memorandum" (TAGM) HWR-94-4046.
3. N/L = Parameter Not Listed in NYSDEC TAGM HWR-94-4046.
4. N/S = Parameter Listed in NYSDEC TAGM HWR-94-4046, but RSCO Not Specified.
5. Results in BOLD type indicate detected concentrations of parameter analyzed.
6. SHADING indicates results above the RSCO.
7. R = Rejected in data usability report
8. A value of R denotes unusable data as per the Data Usability Summary Report

TABLE - 3-2

Summary of Phase 2B SI Soil Sample Analytical Data
TCL - Semi-VOC Analyses
Former Brown Manufacturing Site - Syracuse, New York

Parameter	RSCO	T16-1	T16-2	T17-1	T17-2	T18-1	T18-2	T19-1	T19-2	T20-1	T20-2	T21-1	T-21-2	T22-1
In-Situ PID Screening	-	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Headspace PID Screening	-	145	19.3	10.6	0.0	19.5	0.0	4.1	0.1	1.7	1.6	0.0	0.0	0.0
bis (2-Chloroethyl) ether	N/L	< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	< 0.410	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
Phenol	0.03 or MDL	< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	< 0.410	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
2-Chlorophenol	0.8	< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	< 0.410	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
1,3-Dichlorobenzene	N/L	< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	< 0.410	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
1,4-Dichlorobenzene	N/L	< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	< 0.410	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
1,2-Dichlorobenzene	N/L	< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	< 0.410	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
bis(2-Chloroisopropyl)ether		< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	< 0.410	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
2-Methylphenol	0.100 or MDL	< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	< 0.410	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
Hexachloroethane	N/L	< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	< 0.410	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
N-Nitrosodi-n-propylamine	N/L	< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	< 0.410	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
4-Methylphenol	0.9	< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	< 0.410	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
Nitrobenzene	0.200 or MDL	< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	< 0.410	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
Isophorone	4.40	< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	< 0.410	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
2-Nitrophenol	0.330 or MDL	< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	< 0.410	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
2,4-Dimethylphenol	N/L	< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	< 0.410	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
bis (2-Chloroethoxy) methane	N/L	< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	< 0.410	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
2,4-Dichlorophenol	0.4	< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	< 0.410	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
1,2,4-Trichlorobenzene	N/L	< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	< 0.410	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
Naphthalene	13.0	< 0.380	< 0.480	< 0.440	< 0.530	**0.220**	< 0.430	< 0.410	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
4-Chloroaniline	0.220 or MDL	< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	< 0.410	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
Hexachlorobutadiene	N/L	< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	< 0.410	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
4-Chloro-3-methylphenol	0.240 or MDL	< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	< 0.410	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
2-Methylnaphthalene	36.4	< 0.380	< 0.480	**0.620**	< 0.530	**0.830**	< 0.430	**0.680**	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
Hexachlorocyclopentadiene	N/L	< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	< 0.410	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
2,4,6-Trichlorophenol	N/L	< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	< 0.410	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
2,4,5-Trichlorophenol	0.1	< 0.950	< 1.200	< 1.100	< 1.300	< 1.100	< 1.100	< 1.000	< 1.100	< 1.200	< 1.100	< 1.100	< 1.100	< 1.100
2-Chloronaphthalene	N/L	< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	< 0.410	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
2-Nitroaniline	0.430 or MDL	< 0.950	< 1.200	< 1.100	< 1.300	< 1.100	< 1.100	< 1.000	< 1.100	< 1.200	< 1.100	< 1.100	< 1.100	< 1.100
Acenaphthylene	41.0	< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	< 0.410	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
Dimethylphthalate	2.0	< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	< 0.410	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
2,6-Dinitrotoluene	1.0	< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	< 0.410	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
Acenaphthene	50.0	< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	< 0.410	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
3-Nitroaniline	0.500 or MDL	< 0.950	< 1.200	< 1.100	< 1.300	< 1.100	< 1.100	< 1.000	< 1.100	< 1.200	< 1.100	< 1.100	< 1.100	< 1.100
2,4-Dinitrophenol	0.200 or MDL	< 0.950	< 1.200	< 1.100	< 1.300	< 1.100	< 1.100	< 1.000	< 1.100	< 1.200	< 1.100	< 1.100	< 1.100	< 1.100
Dibenzofuran	6.2	< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	< 0.410	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
2,4-Dinitrotoluene	N/L	< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	< 0.410	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
4-Nitrophenol	0.100 or MDL	< 0.950	< 1.200	< 1.100	< 1.300	< 1.100	< 1.100	< 1.000	< 1.100	< 1.200	< 1.100	< 1.100	< 1.100	< 1.100
Fluorene	50.0	< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	< 0.410	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
4-Chlorophenylphenylether	N/L	< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	< 0.410	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
Diethylphthalate	7.1	< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	< 0.410	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
4-Nitroaniline	N/L	< 0.950	< 1.200	< 1.100	< 1.300	< 1.100	< 1.100	< 1.000	< 1.100	< 1.200	< 1.100	< 1.100	< 1.100	< 1.100
4,6-Dinitro-2-methylphenol	N/L	< 0.950	< 1.200	< 1.100	< 1.300	< 1.100	< 1.100	< 1.000	< 1.100	< 1.200	< 1.100	< 1.100	< 1.100	< 1.100
n-Nitrosodiphenylamine	N/L	< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	< 0.410	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
4-Bromophenylphenylether	N/L	< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	< 0.410	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
Hexachlorobenzene	0.41	< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	< 0.410	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
Pentachlorophenol	1.0 or MDL	R	R	R	R	R	R	R	R	R	R	R	R	R
Phenanthrene	50.0	**0.740**	< 0.480	**1.600**	< 0.530	**1.700**	< 0.430	**2.500**	< 0.430	**0.560**	< 0.450	< 0.420	< 0.420	< 0.430
Anthracene	50.0	< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	**0.470**	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
Di-n-butylphthalate	8.1	< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	< 0.410	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
Carbazole	N/L	< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	< 0.410	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
Fluoranthene	50.0	< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	< 0.410	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
Pyrene	50.0	< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	< 0.410	< 0.430	**0.520**	**0.640**	< 0.420	< 0.420	< 0.430
Butylbenzylphthalate	50.0	< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	< 0.410	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
3,3'-Dichlorobenzidine	N/S	< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	< 0.410	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
Benzo (a) anthracene	0.224 or MDL	< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	< 0.410	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
Chrysene	0.4	**2.000**	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	< 0.410	< 0.430	< 0.470	**1.200**	< 0.420	< 0.420	< 0.430
bis (2-Ethylhexyl) phthalate	50.0	< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 1.300	< 0.410	< 1.200	< 0.470	< 0.450	< 0.420	< 0.420	< 0.460
Di-n-octylphthalate	50.0	< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	< 0.410	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
Benzo (b) fluoranthene	1.1	< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	< 0.410	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
Benzo (k) fluoranthene	1.1	< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	< 0.410	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
Benzo (a) pyrene	0.061 or MDL	< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	< 0.410	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
Indeno (1,2,3-cd) pyrene	3.2	< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	< 0.410	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
Dibenzo (a,h) anthracene	0.014 or MDL	< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	< 0.410	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
Benzo (g,h,i) perylene	50.0	< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	< 0.410	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
Benzyl alcohol	N/L	< 0.380	< 0.480	< 0.440	< 0.530	< 0.440	< 0.430	< 0.410	< 0.430	< 0.470	< 0.450	< 0.420	< 0.420	< 0.430
Benzoic acid	N/L	< 1.900	< 2.400	< 2.200	< 2.600	< 2.200	< 2.200	< 2.100	< 2.100	< 2.300	< 2.300	< 2.100	< 2.100	< 2.200

Notes:

1. All values expressed in parts per million (ppm).
2. RSCO = Recommended Soil Cleanup Objective; Source: NYSDEC "Technical And Administrative Guidance Memorandum" (TAGM) HWR-94-4046.
3. MDL = Method Detection Limit.
4. N/L = Parameter Not Listed in NYSDEC TAGM HWR-94-4046.
5. N/S = Parameter Listed in NYSDEC TAGM HWR-94-4046, but RSCO Not Specified.
6. Results in BOLD type indicate detected concentrations of parameter analyzed.
7. SHADING indicates results above the RSCO.

TABLE - 3-3

Summary of Phase 2B SI Soil Sample Analytical Data
PCBs - Polychlorinated Biphenyls Analyses

Former Brown Manufacturing Site - Syracuse, New York

Parameter	Surface RSCO	Subsurface RSCO	T16-1	T16-2	T17-1	T17-2	T18-1	T18-2	T19-1	T19-2	T20-1	T20-2	T21-1	T-21-2	T22-1
In-Situ PID	-	-	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Headspace PID	-	-	145	19.3	10.6	0.0	19.5	0.0	4.1	0.1	1.7	1.6	0.0	0.0	0.0
PCB Aroclor 1016	1.0	10	< 0.038	< 0.043	< 0.044	< 0.050	< 0.044	< 0.043	< 0.041	< 0.043	< 0.047	< 0.045	< 0.042	< 0.042	< 0.043
PCB Aroclor 1221	1.0	10	< 0.038	< 0.043	< 0.044	< 0.050	< 0.044	< 0.043	< 0.041	< 0.043	< 0.047	< 0.045	< 0.042	< 0.042	< 0.043
PCB Aroclor 1232	1.0	10	< 0.038	< 0.043	< 0.044	< 0.050	< 0.044	< 0.043	< 0.041	< 0.043	< 0.047	< 0.045	< 0.042	< 0.042	< 0.043
PCB Aroclor 1242	1.0	10	< 0.038	< 0.043	< 0.044	< 0.050	< 0.044	< 0.043	< 0.041	< 0.043	< 0.047	< 0.045	< 0.042	< 0.042	< 0.043
PCB Aroclor 1248	1.0	10	< 0.038	< 0.043	< 0.044	< 0.050	< 0.044	< 0.043	< 0.041	< 0.043	< 0.047	< 0.045	< 0.042	< 0.042	< 0.043
PCB Aroclor 1254	1.0	10	< 0.038	< 0.043	< 0.044	< 0.050	< 0.044	< 0.043	< 0.041	< 0.043	< 0.047	< 0.045	< 0.042	< 0.042	< 0.043
PCB Aroclor 1260	1.0	10	< 0.038	< 0.043	< 0.044	< 0.050	< 0.044	< 0.043	< 0.041	< 0.043	< 0.047	< 0.045	< 0.042	< 0.042	< 0.043
		Total PCBs =	< 0.038	< 0.043	< 0.044	< 0.050	< 0.044	< 0.043	< 0.041	< 0.043	< 0.047	< 0.045	< 0.042	< 0.042	< 0.043

Notes:

1. All values expressed in parts per million (ppm).
2. RSCO = Recommended Soil Cleanup Objective; Source: NYSDEC "Technical And Administrative Guidance Memorandum" (TAGM) HWR-94-4046.
3. Results in BOLD type indicate detected concentrations of parameter analyzed.
4. SHADING indicates results above the RSCO.

TABLE - 4-1

Summary of Groundwater Sample Analytical Data
PCBs - Polychlorinated Biphenyls Analyses

Former Brown Manufacturing Site, Syracuse, New York

Parameter	Groundwater Standard	MW-1	MW-2	MW-3	MW-4	MW-5
PCB Aroclor 1016	0.1	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
PCB Aroclor 1221	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
PCB Aroclor 1232	0.1	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
PCB Aroclor 1242	0.1	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
PCB Aroclor 1248	0.1	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
PCB Aroclor 1254	0.1	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
PCB Aroclor 1260	0.1	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	PCB Total:	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Notes:
1. Results expressed in micrograms per liter (µg/L) = parts per billion (ppb).
2. Groundwater Standard Source: NYSDEC "Technical And Administrative Guidance Memorandum" (TAGM) HWR-94-4046.
3. Results in BOLD type indicate detected concentrations of parameter analyzed.
4. SHADING indicates results above the Groundwater Standard.

TABLE - 4-2

Summary of Groundwater Sample Analytical Data
TCL - VOCs Analyses

Former Brown Manufacturing Site, Syracuse, New York

Parameter	Groundwater Standard	MW-1	MW-2	MW-3	MW-4	MW-5
Acetone	50	< 12	< 10	< 10	< 10	< 11
Benzene	1	< 10	< 10	< 10	< 10	< 10
Bromodichloromethane	N/L	< 10	< 10	< 10	< 10	< 10
Bromoform	N/L	< 10	< 10	< 10	< 10	< 10
Bromomethane	N/L	< 10	< 10	< 10	< 10	< 10
2-Butanone	50	< 10	< 10	< 10	< 10	< 10
Carbon Disulfide	50	< 10	< 10	< 10	< 10	< 10
Carbon Tetrachloride	5	< 10	< 10	< 10	< 10	< 10
Chlorobenzene	5	< 10	< 10	< 10	< 10	< 10
Chloroethane	50	< 10	< 10	< 10	< 10	< 10
Chloroform	7	< 10	**20**	< 10	**2**	**2**
Chloromethane	N/L	< 10	< 10	< 10	< 10	< 10
Dibromochloromethane	50	< 10	< 10	< 10	< 10	< 10
1,1-Dichloroethane	5	< 10	< 10	< 10	< 10	< 10
1,2-Dichloroethane	5	< 10	< 10	< 10	< 10	< 10
1,1-Dichloroethene	5	< 10	< 10	< 10	< 10	< 10
cis-1,2-Dichloroethene	N/L	< 10	< 10	< 10	< 10	< 10
trans-1,2-Dichloroethene	5	< 10	< 10	< 10	< 10	< 10
1,2-Dichloropropane	N/L	< 10	< 10	< 10	< 10	< 10
cis-1,3-Dichloropropene	N/L	< 10	< 10	< 10	< 10	< 10
trans-1,3-Dichloropropene	N/L	< 10	< 10	< 10	< 10	< 10
Ethylbenzene	N/L	< 10	< 10	< 10	< 10	< 10
2-Hexanone	N/L	< 10	< 10	< 10	< 10	< 10
Methylene Chloride	5	< 10	< 10	< 10	< 10	< 10
4-Methyl-2-Pentanone	50	**3**	< 10	< 10	< 10	< 10
Styrene	N/L	< 10	< 10	< 10	< 10	< 10
1,1,2,2-Tetrachloroethane	5	< 10	< 10	< 10	< 10	< 10
Tetrachloroethene	5	< 10	< 10	< 10	< 10	< 10
Toluene	5	< 10	< 10	< 10	< 10	< 10
1,1,1-Trichloroethane	5	< 10	< 10	< 10	< 10	< 10
1,1,2-Trichloroethane	N/L	< 10	< 10	< 10	< 10	< 10
Trichloroethene	5	< 10	< 10	< 10	< 10	< 10
Vinyl Chloride	2	< 10	< 10	< 10	< 10	< 10
m-Xylene, p-Xylene	5	< 10	< 10	< 10	< 10	< 10
o-Xylene	5	< 10	< 10	< 10	< 10	< 10

Notes:
1. Results expressed in micrograms per liter (µg/L) = parts per billion (ppb).
2. Groundwater Standard Source: NYSDEC "Technical And Administrative Guidance Memorandum" (TAGM) HWR-94-4046.
3. N/L = Parameter Not Listed in NYSDEC TAGM HWR-94-4046.
4. Results in BOLD type indicate detected concentrations of parameter analyzed.
5. SHADING indicates results above the Groundwater Standard.

TABLE - 4-3

Summary of Groundwater Sample Analytical Data
TCL Semi-VOC Analyses

Former Brown Manufacturing Site, Syracuse, New York

Parameter	Groundwater Standard	MW-1	MW-2	MW-3	MW-4	MW-5
Acenaphthene	20	< 10	< 10	< 10	< 10	< 10
Acenaphthylene	20	< 10	< 10	< 10	< 10	< 10
Anthracene	50	< 10	< 10	< 10	< 10	< 10
Benzo (a) anthracene	0.002	< 10	< 10	< 10	< 10	< 10
Benzo (a) pyrene	0.002	< 10	< 10	< 10	< 10	< 10
Benzo (b) fluoranthene	0.002	< 10	< 10	< 10	< 10	< 10
Benzo (g,h,i) perylene	5	< 10	< 10	< 10	< 10	< 10
Benzo (k) fluoranthene	0.002	< 10	< 10	< 10	< 10	< 10
bis (2-Chloroethoxy) methane	N/L	< 10	< 10	< 10	< 10	< 10
bis (2-Chloroethyl) ether	N/L	< 10	< 10	< 10	< 10	< 10
bis (2-Ethylhexyl) phthalate	50	< 47	< 30	< 44	< 16	< 9
4-Bromophenylphenylether	N/L	< 10	< 10	< 10	< 10	< 10
Butylbenzylphthalate	50	< 30	< 13	< 26	< 8	< 10
Carbazole	N/L	< 10	< 10	< 10	< 10	< 10
4-Chloro-3-methylphenol	5	< 10	< 10	< 10	< 10	< 10
4-Chloroaniline	5	< 10	< 10	< 10	< 10	< 10
2-Chloronaphthalene	N/L	< 10	< 10	< 10	< 10	< 10
2-Chlorophenol	50	< 10	< 10	< 10	< 10	< 10
4-Chlorophenylphenylether	N/L	< 10	< 10	< 10	< 10	< 10
Chrysene	0.002	< 10	< 10	< 10	< 10	< 10
Di-n-butylphthalate	50	< 37	< 26	< 49	< 61	< 10
Di-n-octylphthalate	50	< 10	< 10	< 10	< 10	< 10
Dibenzo (a,h) anthracene	50	< 10	< 10	< 10	< 10	< 10
Dibenzofuran	5	< 10	< 10	< 10	< 10	< 10
1,2-Dichlorobenzene	N/L	< 10	< 10	< 10	< 10	< 10
1,3-Dichlorobenzene	N/L	< 10	< 10	< 10	< 10	< 10
1,4-Dichlorobenzene	N/L	< 10	< 10	< 10	< 10	< 10
3,3'-Dichlorobenzidine	N/S	< 10	< 10	< 10	< 10	< 10
2,4-Dichlorophenol	1	< 10	< 10	< 10	< 10	< 10
Diethylphthalate	50	< 10	< 10	< 10	< 10	< 10
2,4-Dimethylphenol	N/L	< 10	< 10	< 10	< 10	< 10
Dimethylphthalate	50	< 10	< 10	< 10	< 10	< 10
2,4-Dinitrophenol	5	< 50	< 50	< 50	< 50	< 50
2,4-Dinitrotoluene	N/L	< 10	< 10	< 10	< 10	< 10
2,6-Dinitrotoluene	5	< 10	< 10	< 10	< 10	< 10
Fluoranthene	50	< 10	< 10	< 10	< 10	< 10
Fluorene	50	< 10	< 10	< 10	< 10	< 10
Hexachlorobenzene	0.35	< 10	< 10	< 10	< 10	< 10
Hexachlorobutadiene	N/L	< 10	< 10	< 10	< 10	< 10
Hexachlorocyclopentadiene	N/L	< 10	< 10	< 10	< 10	< 10
Hexachloroethane	N/L	< 10	< 10	< 10	< 10	< 10
Indeno (1,2,3-cd) pyrene	0.002	< 10	< 10	< 10	< 10	< 10
Isophorone	50	< 10	< 10	< 10	< 10	< 10
2-Methyl-4,6-dinitrophenol	N/L	< 50	< 50	< 50	< 50	< 50
2-Methylnaphthalene	50	< 10	< 10	< 10	< 10	< 10
2-Methylphenol	5	< 10	< 10	< 10	< 10	< 10
4-Methylphenol	50	< 10	< 10	< 10	< 10	< 10
Naphthalene	10	< 10	< 10	< 10	< 10	< 10
2-Nitroaniline	5	< 50	< 50	< 50	< 50	< 50
3-Nitroaniline	5	< 50	< 50	< 50	< 50	< 50
4-Nitroaniline	N/L	< 50	< 50	< 50	< 50	< 50
Nitrobenzene	5	< 10	< 10	< 10	< 10	< 10
2-Nitrophenol	5	< 10	< 10	< 10	< 10	< 10
4-Nitrophenol	5	< 50	< 50	< 50	< 50	< 50
n-Nitrosodi-n-propylamine	N/L	< 10	< 10	< 10	< 10	< 10
n-Nitrosodiphenylamine	N/L	< 10	< 10	< 10	< 10	< 10
2,2'-Oxybis (1-Chloropropane)	N/L	< 10	< 10	< 10	< 10	< 10
Pentachlorophenol	1	< 50	< 50	< 50	< 50	< 50
Phenanthrene	50	< 10	< 10	< 10	< 10	< 10
Phenol	1	< 10	< 10	< 10	< 10	< 10
Pyrene	50	< 10	< 10	< 10	< 10	< 10
1,2,4-Trichlorobenzene	N/L	< 10	< 10	< 10	< 10	< 10
2,4,5-Trichlorophenol	1	< 50	< 50	< 50	< 50	< 50
2,4,6-Trichlorophenol	N/L	< 10	< 10	< 10	< 10	< 10

Notes:
1. Results expressed in micrograms per liter (µg/L) = parts per billion (ppb).
2. Groundwater Standard Source: NYSDEC "Technical And Administrative Guidance Memorandum" (TAGM) HWR-94-4046.
3. N/L = Parameter Not Listed in NYSDEC TAGM HWR-94-4046.
4. N/S = Parameter Listed in NYSDEC TAGM HWR-94-4046, but RSCO Not Specified.
5. Results in BOLD type indicate detected concentrations of parameter analyzed.
6. SHADING indicates results above the RSCO.

TABLE - 4-4

Summary of Groundwater Sample Analytical Data
TAL Metals Analyses

Former Brown Manufacturing Site, Syracuse, New York

Parameter	Groundwater Standard	MW-1	MW-2	MW-3	MW-4	MW-5
Aluminum	100	**222**	**143**	**139**	**169**	**147**
Antimony	3	< 15	< 15	< 15	< 15	< 15
Arsenic	25	R	R	R	R	**10.9**
Barium	1000	**77**	< 50	**201**	**491**	**279**
Beryllium	11	< 3	< 3	< 3	< 3	< 3
Cadmium	5	R	R	R	R	R
Calcium	N/L	**66000**	**44500**	**81500**	**147000**	**114000**
Chromium	50	< 5	< 5	< 5	< 5	< 5
Cobalt	5	< 20	< 20	< 20	< 20	< 20
Copper	200	< 10	< 10	< 10	< 10	< 10
Iron	300	< 60	< 60	< 60	< 60	< 60
Lead	25	< 3	< 3	< 3	< 3	< 3
Magnesium	35000	**20300**	**10300**	**20500**	**23700**	**23800**
Manganese	300	**15.5**	< 10	**216**	< 10.0	**35.3**
Mercury	0.7	R	R	R	R	R
Nickel	100	< 30	< 30	< 30	< 30	< 30
Potassium	N/L	**3540**	**1480**	**11400**	**7510**	**10400**
Selenium	10	< 5	< 5	< 5	< 5	< 5
Silver	50	< 10	< 10	< 10	< 10	< 10
Sodium	20000	**26900**	**8070**	**44700**	**36400**	**59100**
Thallium	8	< 10	< 10	< 10	< 10	< 10
Vanadium	14	< 30	< 30	< 30	< 30	N/A
Zinc	N/S	R	R	R	R	R

Notes:
1. Results expressed in micrograms per liter (µg/L) = parts per billion (ppb).
2. Groundwater Standard Source: Table 1 of Title 6 NYCRR Part 703.5.
3. N/L = Parameter Not Listed in Table 1 of Title 6 NYCRR Part 703.5.
4. N/S = Parameter Listed in Table 1 of Title 6 NYCRR Part 703.5, but Groundwater Standard Not Specified.
5. Results in BOLD type indicate detected concentrations of parameter analyzed.
6. SHADING indicates results above the Groundwater Standard.
7. N/A = Not Applicable (laboratory did not analyze for parameter)
8. A value of R denotes unusable data as per the Data Usability Summary Report

TABLE - 4-5: GROUNDWATER MONITORING WELL DATA

Former Brown Manufacturing Site

101 Chester Street

Syracuse, New York

	MW-1	MW-2	MW-3	MW-4	MW-5
Well Riser Elevation[1,2]	96.86	97.29	97.26	97.00	97.40
Screened Interval[2]	6.00 - 16.00	5.00 - 15.00	4.00 - 14.00	4.00 - 14.00	5.50 - 15.50
Total Well Depth[3]	16.00	15.00	14.00	14.00	15.50
Depth To Water[3]	9.37	9.65	10.17	9.95	10.19
Groundwater Elevation[1,2]	87.49	87.64	87.09	87.05	87.21

Notes:
1. Reference elevation of 100.00 feet (assumed) at top nut on fire hydrant located along east side of Chester Street in front of 121 Chester Street residence.
2. Well riser elevation measured in feet from top of 2" PVC well riser.
3. Total well depth and depth to water measured in feet from top of 2" PVC well riser prior to bailing the wells.

FIGURES

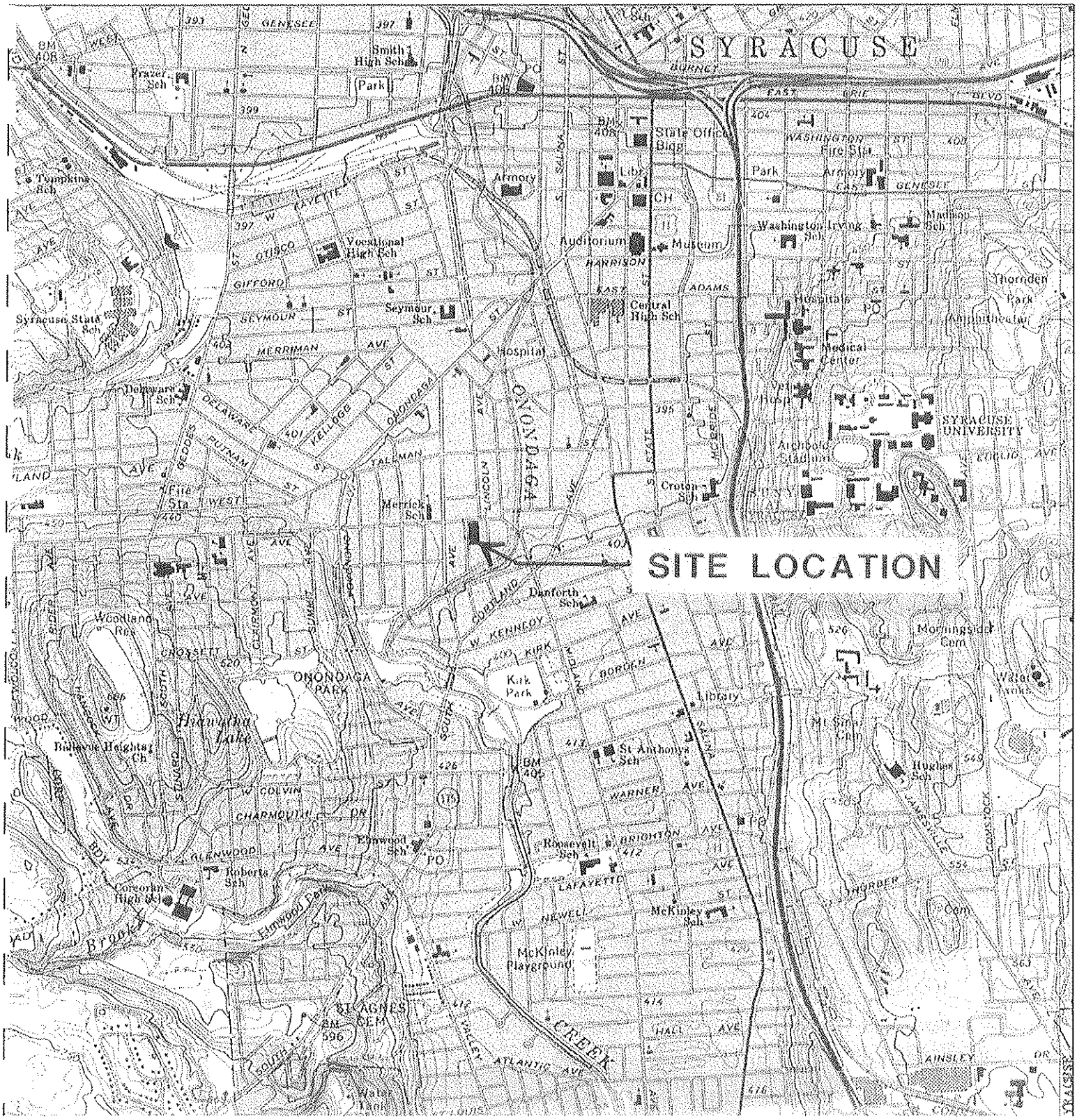
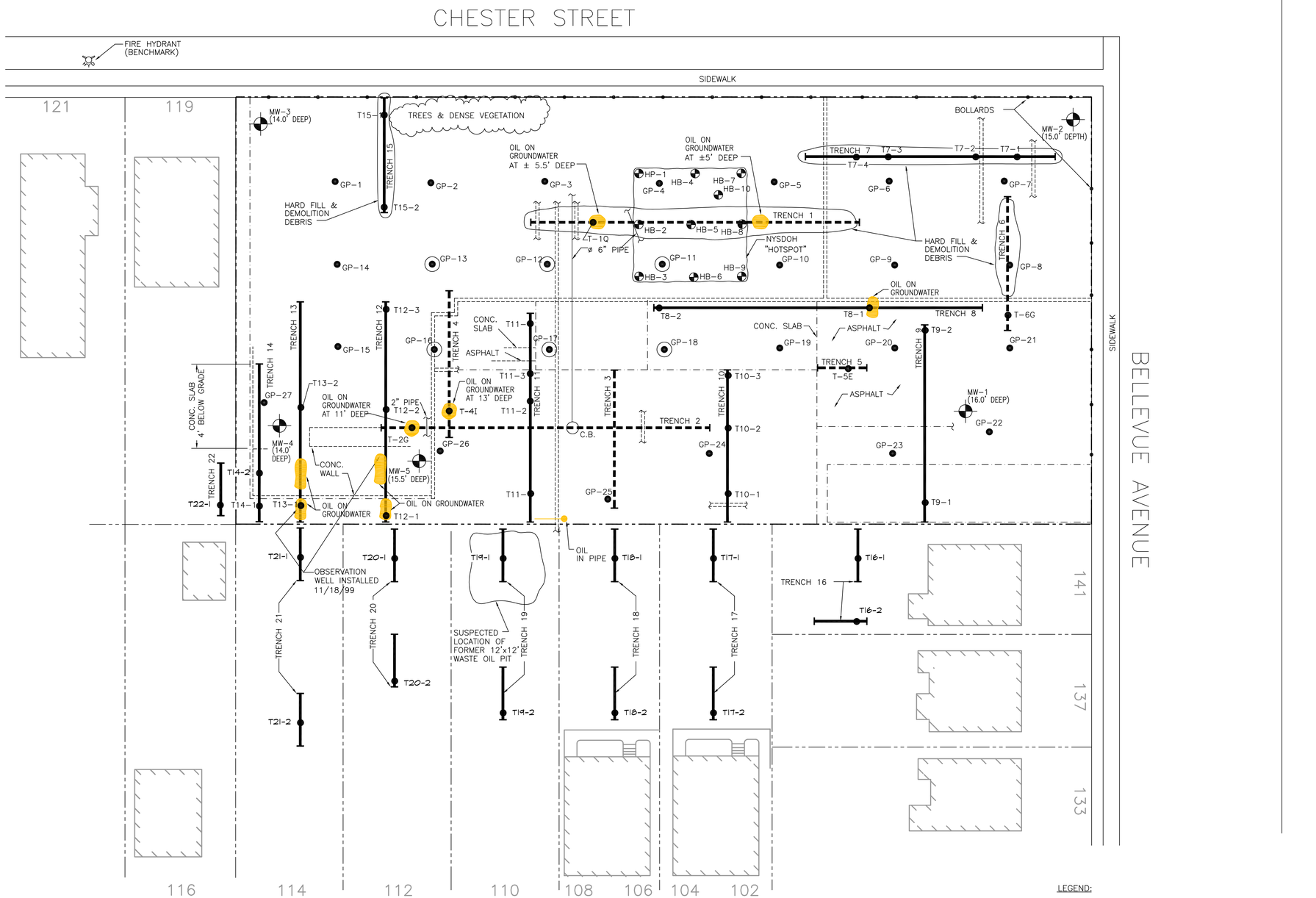


FIGURE 1-1 - LOCATION PLAN

Former Brown Manufacturing Site
101 Chester Street Property
Brownfields Project No. B-00024-7
Syracuse, New York

Scale: 1" = 2,000'

00618



SITE INVESTIGATION PLAN
SCALE: 1/16"=1'-0"

LEGEND:

- GP– GEOPROBE SOIL BORINGS (21) TO GROUNDWATER OR 10' (PHASE 1)
- GP– GEOPROBE SOIL BORINGS (6) TO GROUNDWATER (PHASE 1)
- HB– SHALLOW HAND BORINGS 1–9 (PHASE 1)
- MW– MONITORING WELLS 1–5 (PHASE 1)
- TRENCH EXCAVATIONS 1–6 (PHASE 1)
- TRENCH EXCAVATIONS 7–15 (PHASE 2A)
- OFF–SITE TRENCH EXCAVATIONS 16–22 (PHASE 2B)
- T– TRENCH EXCAVATION SOIL SAMPLES
- EXISTING BUILDING
- FORMER BUILDING (APPROX.)
- EXISTING CONCRETE FOUNDATION

WARNING
ANY ALTERATIONS TO THIS DOCUMENT NOT CONFORMING TO SECTION 7307, NEW YORK STATE EDUCATION LAW ARE STRICTLY PROHIBITED.

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BROWNFIELD RESTORATION PROJECT
FORMER BROWN MANUFACTURING SITE
101 CHESTER STREET
SYRACUSE, NEW YORK
(NYSDEC Project No. B-00024-7)

SITE INVESTIGATION PLAN

Project Number:	Designed By:
00618	JMK
Drawn By:	Reviewed By:
FJS	RNC

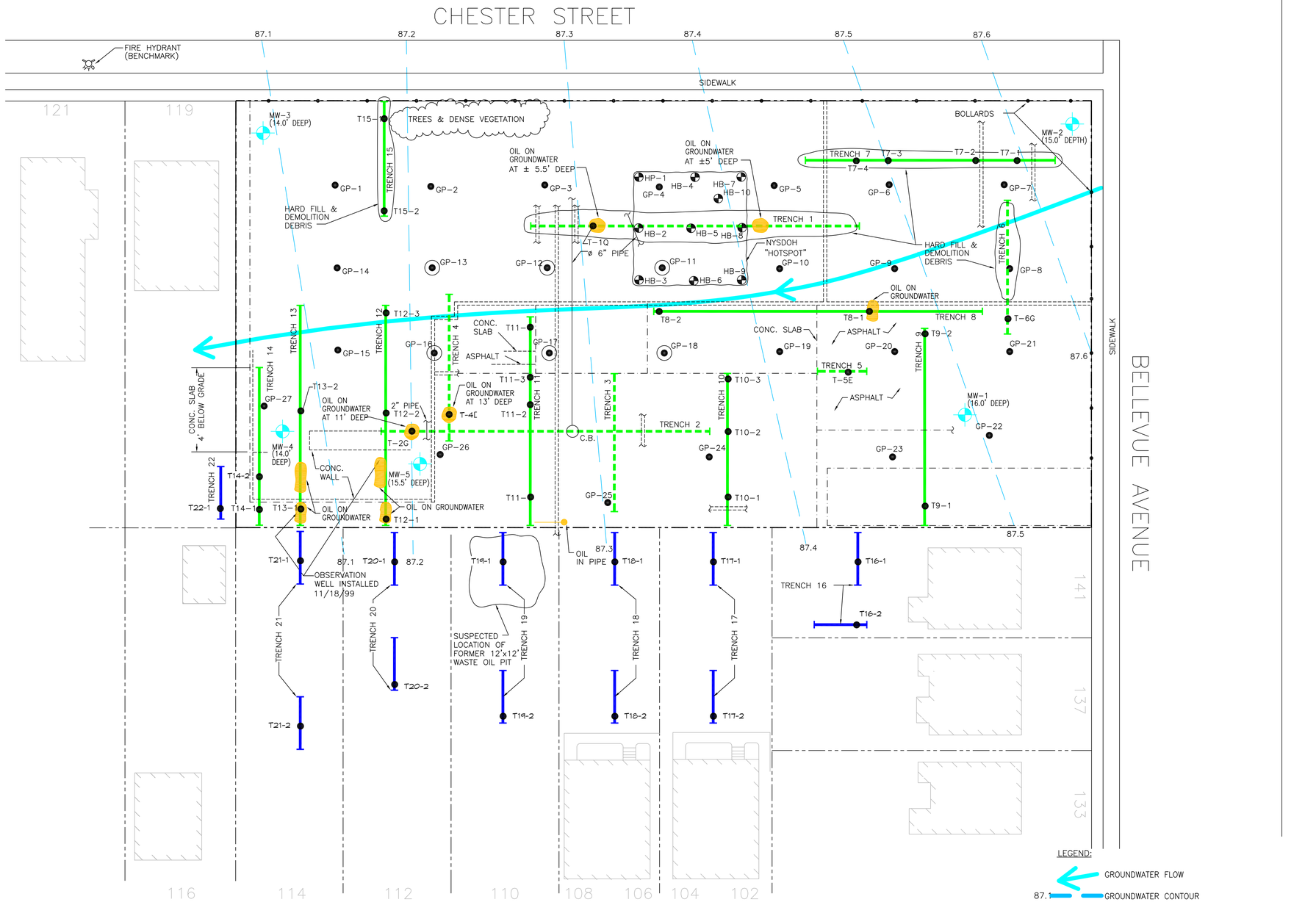
NO	REVISION DESCRIPTION	BY	DATE

Date: SEPTEMBER 4, 2002

Drawing Number

FIG-2

of



SITE INVESTIGATION PLAN

SCALE: 1/16"=1'-0"

LEGEND:

- GROUNDWATER FLOW
- 87.1 GROUNDWATER CONTOUR
- GP- GEOPROBE SOIL BORINGS (21) TO GROUNDWATER OR 10' (PHASE 1)
- GP- GEOPROBE SOIL BORINGS (6) TO GROUNDWATER (PHASE 1)
- HB- SHALLOW HAND BORINGS 1-9 (PHASE 1)
- MW- MONITORING WELLS 1-5 (PHASE 1)
- TRENCH EXCAVATIONS 1-6 (PHASE 1)
- TRENCH EXCAVATIONS 7-15 (PHASE 2A)
- OFF-SITE TRENCH EXCAVATIONS 16-22 (PHASE 2B)
- T- TRENCH EXCAVATION SOIL SAMPLES
- EXISTING BUILDING
- FORMER BUILDING (APPROX.)
- EXISTING CONCRETE FOUNDATION

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BROWNFIELD RESTORATION PROJECT
FORMER BROWN MANUFACTURING SITE
101 CHESTER STREET
SYRACUSE, NEW YORK
(NYSDEC Project No. B-00024-7)

GROUNDWATER CONTOURS & FLOW DIRECTIONS

Project Number:	Designed By:
00618	JMK
Drawn By:	Reviewed By:
FJS	RNC

NO	REVISION DESCRIPTION	BY	DATE

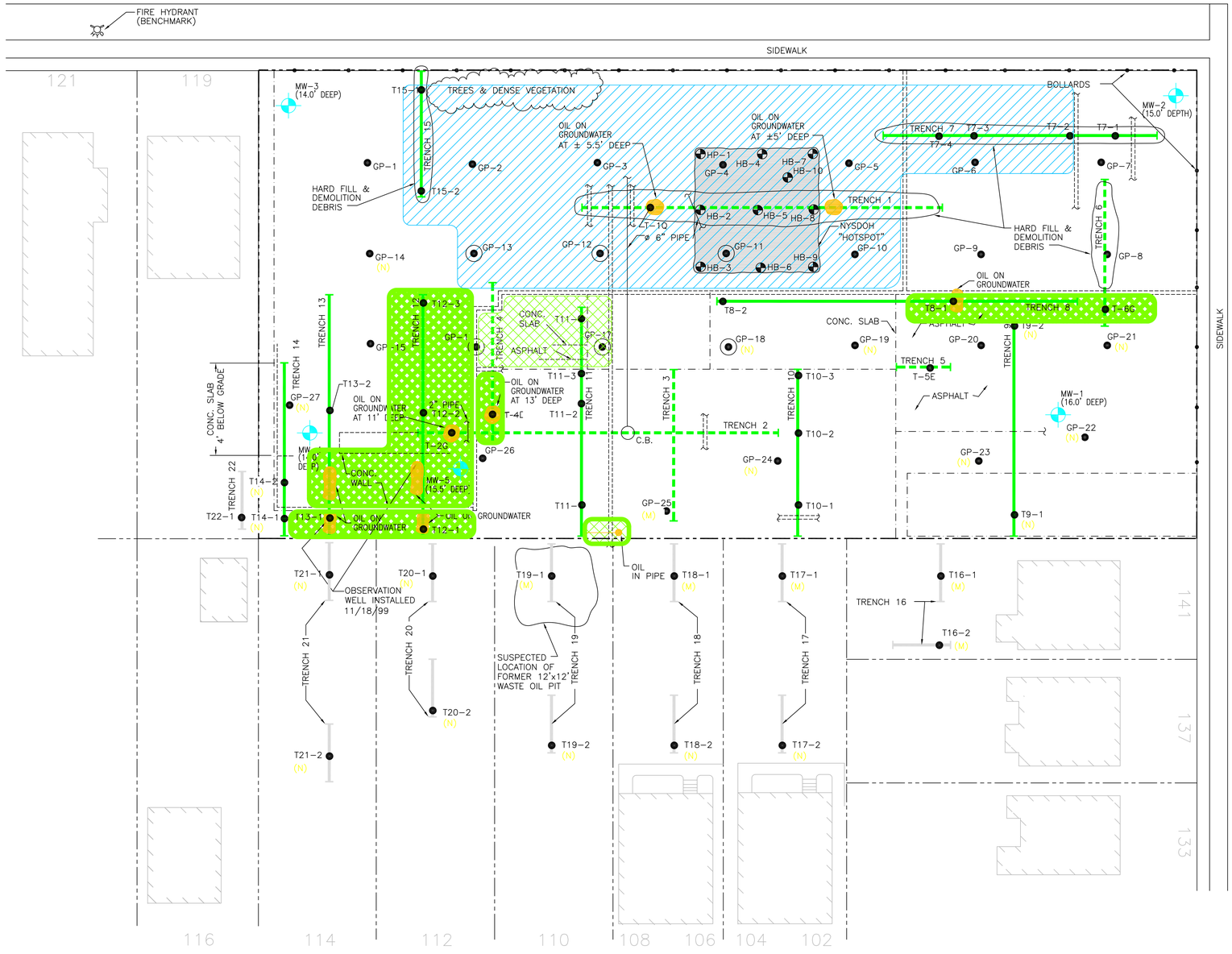
Date: SEPTEMBER 4, 2002

Drawing Number

FIG-3

of

CHESTER STREET



SITE PLAN

SCALE: 1/16"=1'-0"

BELLEVUE AVENUE

LEGEND:

- MINIMAL EVIDENCE OF SOIL CONTAMINATION
- NO EVIDENCE OF SOIL CONTAMINATION
- APPROXIMATE LIMITS OF PCB SOIL CONTAMINATION
- APPROXIMATE LIMITS OF DEEP SOIL PAH CONTAMINATION (13 FOOT DEPTH) (3,450 SQ FT)
- APPROXIMATE LIMITS OF SHALLOW SOIL PAH CONTAMINATION (6 FOOT DEPTH) (8,700 SQ FT)
- GP– GEOPROBE SOIL BORINGS (21) TO GROUNDWATER OR 10' (PHASE 1)
- GP– GEOPROBE SOIL BORINGS (6) TO GROUNDWATER (PHASE 1)
- HB– SHALLOW HAND BORINGS 1–9 (PHASE 1)
- MW– MONITORING WELLS 1–5 (PHASE 1)
- TRENCH EXCAVATIONS 1–6 (PHASE 1)
- TRENCH EXCAVATIONS 7–15 (PHASE 2A)
- OFF-SITE TRENCH EXCAVATIONS 16–22 (PHASE 2B)
- T– TRENCH EXCAVATION SOIL SAMPLES
- EXISTING BUILDING
- FORMER BUILDING (APPROX.)
- EXISTING CONCRETE FOUNDATION

BDA BEARDSLEY DESIGN ASSOCIATES
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BROWNFIELD RESTORATION PROJECT
FORMER BROWN MANUFACTURING SITE
101 CHESTER STREET
SYRACUSE, NEW YORK
(NYSDEC Project No. B-00024-7)

EXTENT OF SITE SOIL CONTAMINATION

Project Number:	Designed By:
00618	JMK
Drawn By:	Reviewed By:
FJS	RNC

NO.	REVISION DESCRIPTION	BY	DATE

Date: SEPTEMBER 4, 2002

Drawing Number

FIG-4

of

APPENDICES

APPENDIX A

SCREENING AND IMMUNOASSAY LOGS

C&H engineers, p.c.
431 East Fayette Street Syracuse, New York 13202
Tel: (315) 472-6980 Fax: (315) 472-3523

SOIL SCREENING LOG

Soil Borings

Project ID: *Brownfield Restoration Project*

Site Name: *Former Brown Manufacturing Site*

Location: *101 Chester Street - Syracuse, New York*

Date: *7/20/1998*

C & H Project Number: *26042*

NYSDEC Project Number: *B-00024-7*

Location	Sample Depth (ft.)	Description	In-Situ PID	Headspace PID	PCB Immunoassay	Remarks
HB-1	0.0 - 0.5	Dark, loose fill; gravel; stones	0.0 ppm	2.0 ppm	1 - 10	No odors or staining
HB-2	0.0 - 0.5	Dark, native organic material	0.0 ppm	0.0 ppm	1 - 10	No odors or staining
HB-3	0.0 - 0.5	Dark, native organic material	0.0 ppm	0.0 ppm	< 1	No odors or staining
HB-4	0.0 - 0.5	Dark, native organic material	0.0 ppm	0.0 ppm	< 1	No odors or staining
HB-5	0.0 - 0.5	Dark, native organic material	0.0 ppm	0.0 ppm	< 1	No odors or staining
HB-6	0.0 - 0.5	Dark, native organic material	0.0 ppm	1.5 ppm	< 1	No odors or staining
HB-7	0.0 - 0.5	Loose native soil; stone, organic material	0.0 ppm	0.0 ppm	< 1	No odors or staining
HB-8	0.0 - 0.5	Loose native soil; stone, organic material	0.0 ppm	0.0 ppm	1 - 10	No odors or staining
*HB-9	0.0 - 0.5	Loose native soil; stone, organic material	0.0 ppm	0.0 ppm	10 - 50	No odors or staining
HB-10	0.0 - 0.5	Loose native soil; stone, organic material	0.0 ppm	0.0 ppm	1 - 10	No odors or staining

* *Sample analyzed for PCBs (8080), VOCs (8240), Semi-VOCs (8270), and Metals (200.7).*

C&H engineers, p.c.
431 East Fayette Street Syracuse, New York 13202
Tel: (315) 472-6980 Fax: (315) 472-3523

SOIL SCREENING LOG

Soil Borings

Project ID: *Brownfield Restoration Project*

Site Name: *Former Brown Manufacturing Site*

Location: *101 Chester Street - Syracuse, New York*

Date: *7/21/1998*

C & H Project Number: *26042*

NYSDEC Project Number: *B-00024-7*

Location	Sample Depth (ft.)	Description	In-Situ PID	Headspace PID	PCB Immunoassay	Remarks
GP-1 A	0.0 - 0.5	Non-native fill	0.0 ppm	0.0 ppm	1 - 10	No odors or staining
GP-1 B	0.5 - 2.0	Stone, gravel fill; organics	1.0 ppm	1.0 ppm	1 - 10	No odors or staining
GP-1 C	2.0 - 4.0	Stone, gravel fill; organics; trace clay	0.0 ppm	0.0 ppm		No odors or staining
GP-1 D	4.0 - 6.0	Moist clay, tight silt	0.0 ppm	0.0 ppm		No odors or staining
GP-1 E	6.0 - 8.0	Moist clay, tight silt	0.0 ppm	0.0 ppm		No odors or staining
GP-1 F	8.0 - 10.0	Moist clay, tight silt	0.0 ppm	0.0 ppm		No odors or staining
GP-2 A	0.0 - 0.5	Non-native fill	0.0 ppm	0.0 ppm	< 1	No odors or staining
GP-2 B	0.5 - 2.0	Fill; loose silt/stones; organics	1.0 ppm	2.8 ppm		Some petroleum odors; staining
GP-2 C	2.0 - 4.0	Moist fine-coarse sand, gravel, wood, brick	1.0 ppm	0.8 ppm		Some petroleum odors; staining
*GP-2 D	4.0 - 5.7	Moist fine-coarse sand, gravel, wood, brick	5.0 ppm	5.8 ppm	10 - 50	Some petroleum odors; staining
GP-3 A	0.0 - 0.5	Non-native fill	0.0 ppm	0.5 ppm	< 1	No odors or staining
GP-3 B	0.5 - 2.0	Fine sand/silt; stone, brick, wood fill	10.0 ppm	9.2 ppm	10 - 50	Some petroleum odors; staining
GP-4 A	0.0 - 0.5	Non-native fill	0.0 ppm	0.1 ppm	< 1	No odors or staining
GP-4 B	0.5 - 2.0	Fine-med. sand/silt; stone, ash, wood fill; trace clay	2.0 ppm	3.8 ppm		Petroleum odors; dark staining
GP-4 C	2.0 - 4.0	Fine-med. sand/silt; wood, brick fill	0.0 ppm	2.5 ppm		Petroleum odors; dark staining
GP-4 D	4.0 - 6.0	Moist, fine-med. sand/silt; wood fill; stone	4.0 ppm	1.8 ppm		Some petroleum odors; staining
GP-4 E	6.0 - 8.0	Moist, fine-med. sand/silt; wood fill; stone; trace clay	4.0 ppm	7.2 ppm	10 - 50	Some petroleum odors; staining

* Sample analyzed for PCBs(8080), VOCs (8240), Semi-VOCs (8270), and Metals (200.7).

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SOIL SCREENING LOG

Soil Borings

Project ID: *Brownfield Restoration Project*

Site Name: *Former Brown Manufacturing Site*

Location: *101 Chester Street - Syracuse, New York*

Date: *7/21/1998*

C & H Project Number: *26042*

NYSDEC Project Number: *B-00024-7*

Location	Sample Depth (ft.)	Description	In-Situ PID	Headspace PID	PCB Immunoassay	Remarks
GP-5 A	0.0 - 0.5	Non-native fill	0.0 ppm	0.1 ppm	< 1	No odors or staining
GP-5 B	0.5 - 2.0	Fine-med. sand/silt; stone, wood, brick fill	1.0 ppm	4.5 ppm		Some petroleum odors; staining
*GP-5 C	2.0 - 4.0	Fine-med. sand/silt; wood, brick fill; trace clay	1.0 ppm	5.2 ppm	10 - 50	Petroleum odors; dark staining
GP-5 D	4.0 - 6.0	Moist, fine-med. sand/silt; ash, brick fill (GW=6.6')	0.0 ppm	2.9 ppm		Petroleum odors; dark staining
GP-6 A	0.0 - 0.5	Non-native fill	0.0 ppm	0.0 ppm	< 1	No odors or staining
GP-6 B	0.5 - 2.0	Fine sand/silt; brick fill	0.0 ppm	6.6 ppm	1 - 10	No odors; some staining
GP-6 C	2.0 - 4.0	Fine sand/silt; wood fill	2.0 ppm	4.7 ppm		Some odors & staining
GP-6 D	4.0 - 6.0	Moist sand/silt; ash fill (GW=6.7')	0.0 ppm	2.4 ppm		Some odors & staining
GP-7 A	0.0 - 0.5	Non-native fill	0.0 ppm	0.0 ppm	< 1	No odors or staining
GP-7 B	0.5 - 2.0	Fine-med. sand/silt; stone, wood, brick fill	1.0 ppm	0.5 ppm	1 - 10	Some odors & staining
GP-7 C	2.0 - 3.7	Fine-med. sand/silt; stone, concrete (Refusal=3.7')	0.0 ppm	0.2 ppm		Some odors & staining
GP-8 A	0.0 - 0.5	Non-native fill	0.0 ppm	0.0 ppm	< 1	No odors or staining
*GP-8 B	0.5 - 2.0	Sand/silt; wood, brick fill (Refusal=2.0')	0.0 ppm	1.2 ppm	> 50	No odors or staining
GP-9 A	0.0 - 0.5	Non-native fill	0.0 ppm	0.1 ppm	< 1	No odors or staining
GP-9 B	0.5 - 2.0	Sand/silt	0.0 ppm	0.0 ppm		No odors or staining
GP-9 C	2.0 - 4.0	Dark sand/silt; brick, wood fill	0.8 ppm	3.0 ppm	1 - 10	Some odors & staining
GP-9 D	4.0 - 6.0	Sand/silt; wood, stone, brick fill (Refusal=6.0')	0.0 ppm	0.8 ppm		Some odors & staining

* Sample analyzed for PCBs(8080), VOCs (8240), Semi-VOCs (8270), and Metals (200.7).

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Tel: (315) 472-6980 Fax: (315) 472-3523

SOIL SCREENING LOG

Soil Borings

Project ID: *Brownfield Restoration Project*

Site Name: *Former Brown Manufacturing Site*

Location: *101 Chester Street - Syracuse, New York*

Date: *7/21/1998*

C & H Project Number: *26042*

NYSDEC Project Number: *B-00024-7*

Location	Sample Depth (ft.)	Description	In-Situ PID	Headspace PID	PCB Immunoassay	Remarks
GP-10 A	*0.0 - 0.5*	*Non-native fill*	*0.0 ppm*	*0.0 ppm*	*1 - 10*	*No odors or staining*
GP-10 B	*0.5 - 2.0*	*Sand/silt; brick fill*	*0.0 ppm*	*0.6 ppm*		*No odors or staining*
GP-10 C	*2.0 - 4.0*	*Moist sand/silt; ash fill*	*0.2 ppm*	*1.1 ppm*	*10 - 50*	*Some odors; no staining*
GP-10 D	*4.0 - 5.7*	*Moist silt; gravel, brick fill (GW=5.7')*	*0.0 ppm*	*0.5 ppm*		*Some odors; no staining*

** Sample analyzed for PCBs(8080), VOCs (8240), Semi-VOCs (8270), and Metals (200.7).*

C&H engineers, p.c.
431 East Fayette Street Syracuse, New York 13202
Tel: (315) 472-6980 Fax: (315) 472-3523

SOIL SCREENING LOG

Soil Borings

Project ID: *Brownfield Restoration Project*

Site Name: *Former Brown Manufacturing Site*

Location: *101 Chester Street - Syracuse, New York*

Date: *7/22/1998*

C & H Project Number: *26042*

NYSDEC Project Number: *B-00024-7*

Location	Sample Depth (ft.)	Description	In-Situ PID	Headspace PID	PCB Immunoassay	Remarks
GP-11 A	0.0 - 0.5	Non-native fill	0.0 ppm	0.0 ppm	< 1	No odors or staining
GP-11 B	0.5 - 2.0	Moist sand/silt; brick fill	0.0 ppm	1.0 ppm		No odors or staining
GP-11 C	2.0 - 4.0	Moist sand/silt; ash fill	1.0 ppm	5.0 ppm	10 - 50	Some odors & staining
GP-11 D	4.0 - 6.5	Wet sand/silt; brick, ash fill (GW=6.5')	1.0 ppm	4.0 ppm		Some odors & staining
GP-12 A	0.0 - 0.5	Non-native fill	0.0 ppm	0.0 ppm	1 - 10	No odors or staining
GP-12 B	0.5 - 2.0	Sand/silt; brick, wood fill	1.0 ppm	3.0 ppm		Some odors & staining
GP-12 C	2.0 - 4.0	Sand/silt; brick, wood fill	0.0 ppm	2.0 ppm		Some odors & staining
GP-12 D	4.0 - 5.2	Saturated sand/silt (GW=5.2')	1.0 ppm	6.0 ppm	1 - 10	Some odors & staining
*GP-13 A	0.0 - 0.5	Non-native fill	0.0 ppm	2.0 ppm	1 - 10	No odors or staining
GP-13 B	0.5 - 2.0	Sand/silt; brick, concrete fill	0.0 ppm	6.0 ppm	1 - 10	Some odors & staining
GP-13 C	2.0 - 6.0	Wet sand/silt; brick fill (poor recovery)	0.0 ppm	4.0 ppm		Some odors & staining
GP-14 A	0.0 - 0.5	Non-native fill	0.0 ppm	0.0 ppm	1 - 10	No odors or staining
GP-14 B	0.5 - 2.0	Sand/silt; ash fill	0.0 ppm	0.0 ppm		No odors or staining
GP-14 C	2.0 - 4.0	Sand/silt; ash fill	0.0 ppm	0.0 ppm		No odors or staining
GP-14 D	4.0 - 8.0	Sand/silt; trace clay (poor recovery)	0.0 ppm	1.0 ppm	< 1	No odors or staining

* Sample analyzed for PCBs (8080), VOCs (8240), Semi-VOCs (8270), and Metals (200.7).
** Sample analyzed for VOCs (8240), Semi-VOCs (8270), and Metals (200.7), ONLY.

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SOIL SCREENING LOG

Soil Borings

Project ID: *Brownfield Restoration Project*

Site Name: *Former Brown Manufacturing Site*

Location: *101 Chester Street - Syracuse, New York*

Date: *7/22/1998*

C & H Project Number: *26042*

NYSDEC Project Number: *B-00024-7*

Location	Sample Depth (ft.)	Description	In-Situ PID	Headspace PID	PCB Immunoassay	Remarks
GP-15 A	0.0 - 0.5	Non-native fill	0.0 ppm	0.0 ppm	< 1	No odors or staining
GP-15 B	0.5 - 2.0	Fine-med. silt; ash, stone fill	0.0 ppm	0.0 ppm		No odors or staining
GP-15 C	2.0 - 4.0	Fine-med. silt; ash, stone fill	0.0 ppm	0.0 ppm		No odors or staining
GP-15 D	4.0 - 6.0	Moist fine sand/silt; trace clay	0.0 ppm	0.0 ppm	< 1	No odors or staining
GP-15 E	6.0 - 8.0	Moist-wet fine sand/silt; trace clay	0.0 ppm	0.0 ppm		No odors or staining
GP-15 F	8.0 - 10.0	Wet fine sand/silt; some organics	0.0 ppm	0.0 ppm		No odors or staining
*GP-16 A	0.0 - 0.5	Non-native fill; stone	0.0 ppm	0.0 ppm	1 - 10	No odors or staining
GP-16 B	0.5 - 2.0	Fine-med. sand/silt; brick fill	0.0 ppm	1.0 ppm		No odors or staining
GP-16 C	2.0 - 4.0	Fine-med. sand/silt; wood, ash fill	0.0 ppm	1.0 ppm		No odors or staining
GP-16 D	4.0 - 6.0	Fine-med. sand/silt; ash fill; trace clay	0.0 ppm	0.0 ppm		No odors or staining
GP-16 E	6.0 - 8.0	Moist dense clay; trace dark silt	25.0 ppm	40.0 ppm		Odors & staining
GP-16 F	8.0 - 10.0	Moist, fine-med. sand/silt	15.0 ppm	20.0 ppm		Odors & staining
GP-16 G	10.0 - 12.0	Moist, fine sand/silt (GW=11.2')	30.0 ppm	80.0 ppm	1 - 10	Odors & staining

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SOIL SCREENING LOG

Soil Borings

Project ID: *Brownfield Restoration Project*

Site Name: *Former Brown Manufacturing Site*

Location: *101 Chester Street - Syracuse, New York*

Date: *7/22/1998*

C & H Project Number: *26042*

NYSDEC Project Number: *B-00024-7*

Location	Sample Depth (ft.)	Description	In-Situ PID	Headspace PID	PCB Immunoassay	Remarks
GP-17 A	0.0 - 0.5	Non-native fill	0.0 ppm	1.0 ppm	1 - 10	No odors or staining
GP-17 B	0.5 - 2.0	Med. silt; ash fill	1.0 ppm	4.0 ppm		No odors or staining
GP-17 C	2.0 - 4.0	Moist med. silt; ash fill	1.0 ppm	18.0 ppm		Some odors; no staining
GP-17 D	4.0 - 6.0	Moist med. sand/silt	50.0 ppm	120.0 ppm		Odors & staining
GP-17 E	6.0 - 8.0	Moist med. silt	50.0 ppm	140.0 ppm		Odors & staining
*GP-17 F	8.0 - 10.0	Moist med. silt	100.0 ppm	140.0 ppm	1 - 10	Strong odors & staining
GP-17 G	10.0 - 12.0	Moist med. silt (GW=10.1')	80.0 ppm	130.0 ppm		Strong odors & staining
GP-18 A	0.0 - 0.5	Non-native fill	0.0 ppm	2.0 ppm	< 1	No odors or staining
GP-18 B	0.5 - 2.0	Sand/silt; stone; brick fill	0.0 ppm	3.0 ppm	< 1	No odors or staining
GP-18 C	2.0 - 4.0	Fine sand/silt; trace clay; ash, brick fill	0.0 ppm	1.0 ppm		No odors or staining
GP-18 D	4.0 - 6.5	Sand/silt; trace clay; ash fill (GW=6.5')	0.0 ppm	1.0 ppm		No odors or staining
GP-19 A	0.0 - 0.5	Non-native fill	0.0 ppm	0.0 ppm	< 1	No odors or staining
GP-19 B	0.5 - 2.0	Fine sand/silt; stone (Refusal=2.0')	0.0 ppm	0.0 ppm	< 1	No odors or staining

* Sample analyzed for PCBs (8080), VOCs (8240), Semi-VOCs (8270), and Metals (200.7).

** Sample analyzed for VOCs (8240), Semi-VOCs (8270), and Metals (200.7), ONLY.

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SOIL SCREENING LOG

Soil Borings

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C & H Project Number: *26042*

NYSDEC Project Number: *B-00024-7*

Location	Sample Depth (ft.)	Description	In-Situ PID	Headspace PID	PCB Immunoassay	Remarks
GP-20 A	0.0 - 0.5	Dark fine sand/silt; some fill	0.0 ppm	0.0 ppm	< 1	No odors or staining
GP-20 B	0.5 - 2.0	Ash fill; some fine sand/silt	0.0 ppm	0.0 ppm		No odors or staining
GP-20 C	2.0 - 4.0	Ash fill; some fine sand/silt	0.0 ppm	0.0 ppm		No odors or staining
GP-20 D	4.0 - 6.0	Ash fill; some fine sand/silt	0.0 ppm	0.0 ppm		No odors or staining
GP-20 E	6.0 - 8.0	Silt, clay	0.0 ppm	0.0 ppm		No odors or staining
GP-20 F	8.0 - 10.0	Moist fine sand/silt, clay	8.0 ppm	4.0 ppm	< 1	Petroleum odors, dark staining
GP-21 A	0.0 - 0.5	Dark fine sand/silt; some fill	0.0 ppm	0.0 ppm	< 1	No odors or staining
GP-21 B	0.5 - 2.0	Fine sand/silt; stone	0.0 ppm	0.0 ppm		No odors or staining
GP-21 C	2.0 - 4.0	Fine sand/silt; stone	0.0 ppm	0.0 ppm		No odors or staining
GP-21 D	4.0 - 6.0	Ash fill; some moist fine sand/silt	0.0 ppm	0.0 ppm		No odors or staining
GP-21 E	6.0 - 8.0	Moist fine sand/silt, clay	0.0 ppm	0.0 ppm	< 1	Slight odors, staining
GP-21 F	8.0 - 10.0	Moist fine sand/silt, clay, organic material	0.0 ppm	0.0 ppm		Slight odors, staining
GP-22 A	0.0 - 0.5	Fine sand/silt; gravel; fill; organic material	0.0 ppm	0.0 ppm	< 1	No odors or staining
GP-22 B	0.5 - 2.0	Ash fill; some sand/silt	0.0 ppm	0.0 ppm		No odors or staining
GP-22 C	2.0 - 4.0	Fine sand/silt; some ash	0.0 ppm	0.0 ppm		No odors or staining
GP-22 D	4.0 - 6.0	Ash; fine sand; trace silt	0.0 ppm	0.0 ppm	< 1	No odors or staining
GP-22 E	6.0 - 8.0	Fine sand/silt; trace clay	0.0 ppm	0.0 ppm		No odors or staining
GP-22 F	8.0 - 10.0	Fine sand/silt; trace clay	0.0 ppm	0.0 ppm		No odors or staining

* Sample analyzed for PCBs (8080), VOCs (8240), Semi-VOCs (8270), and Metals (200.7).
** Sample analyzed for VOCs (8240), Semi-VOCs (8270), and Metals (200.7), ONLY.

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SOIL SCREENING LOG

Soil Borings

Project ID: *Brownfield Restoration Project*

Site Name: *Former Brown Manufacturing Site*

Location: *101 Chester Street - Syracuse, New York*

Date: *7/22/1998*

C & H Project Number: *26042*

NYSDEC Project Number: *B-00024-7*

Location	Sample Depth (ft.)	Description	In-Situ PID	Headspace PID	PCB Immunoassay	Remarks
GP-23 A	0.0 - 0.5	Fine sand/silt; gravel fill	0.0 ppm	0.0 ppm	< 1	No odors or staining
GP-23 B	0.5 - 2.0	Ash fill; some sand/silt	0.0 ppm	0.0 ppm		No odors or staining
GP-23 C	2.0 - 4.0	Ash fill; some sand/silt	0.0 ppm	0.0 ppm		No odors or staining
GP-23 D	4.0 - 6.0	Moist fine sand; someash & silt	0.0 ppm	0.0 ppm		No odors or staining
GP-23 E	6.0 - 8.0	Fine sand/silt; trace clay	0.0 ppm	0.0 ppm		No odors or staining
GP-23 F	8.0 - 10.0	Fine sand/silt; trace clay (GW=±9.7')	5.0 ppm	4.0 ppm	1 - 10	Petroleum odors, dark staining
GP-24 A	0.0 - 0.5	Fine sand; gravel; some silt/fill	0.0 ppm	0.0 ppm	< 1	No odors or staining
GP-24 B	0.5 - 2.0	Moist fine sand/silt; gravel	0.0 ppm	0.0 ppm		No odors or staining
GP-24 C	2.0 - 4.0	Moist fine sand/silt	0.0 ppm	0.0 ppm		Some odors, staining
GP-24 D	4.0 - 6.0	Moist fine sand/silt; trace clay & ash	1.0 ppm	1.0 ppm	1 - 10	Some odors, staining
GP-24 E	6.0 - 8.0	Moist fine sand/silt; trace clay	1.0 ppm	1.0 ppm		Some odors, staining
GP-24 F	8.0 - 10.0	Moist fine sand/silt; trace clay (GW=11.1')	1.0 ppm	0.0 ppm		Some odors, staining
*GP-25 A	0.0 - 0.5	Fine sand/silt; fill; organic material	1.0 ppm	0.0 ppm	10 - 50	Some odors, staining
GP-25 B	0.5 - 2.0	Moist fine sand/silt; fill; organic material	1.0 ppm	1.0 ppm		Some odors, staining
GP-25 C	2.0 - 4.0	Moist sand/silt; stone	2.0 ppm	1.0 ppm	1 - 10	Some odors, staining
GP-25 D	4.0 - 6.0	Fine sand/silt; some fill; trace clay	2.0 ppm	1.0 ppm		Some odors, staining
GP-25 E	6.0 - 8.0	Fine sand/silt; trace clay	0.0 ppm	0.0 ppm		Some odors, staining
GP-25 F	8.0 - 10.0	Wet fine sand/silt (GW=9.7')	2.0 ppm	1.0 ppm		Some odors, staining

* Sample analyzed for PCBs (8080), VOCs (8240), Semi-VOCs (8270), and Metals (200.7).
** Sample analyzed for VOCs (8240), Semi-VOCs (8270), and Metals (200.7), ONLY.

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SOIL SCREENING LOG

Soil Borings

Project ID: *Brownfield Restoration Project*

Site Name: *Former Brown Manufacturing Site*

Location: *101 Chester Street - Syracuse, New York*

Date: *7/22/1998*

C & H Project Number: *26042*

NYSDEC Project Number: *B-00024-7*

Location	Sample Depth (ft.)	Description	In-Situ PID	Headspace PID	PCB Immunoassay	Remarks
GP-26 A	0.0 - 0.5	Fine sand/silt; fill material	0.0 ppm	0.0 ppm	1 - 10	No odors or staining
GP-26 B	0.5 - 2.0	Fine sand/silt; fill material	0.0 ppm	0.0 ppm		No odors or staining
GP-26 C	2.0 - 4.0	Fine sand/silt; fill material; some ash	0.0 ppm	0.0 ppm		No odors or staining
GP-26 D	4.0 - 6.0	Fine sand/silt; clay & fill material	0.0 ppm	0.0 ppm		No odors or staining
GP-26 E	6.0 - 8.0	Fine sand/silt; trace clay	0.0 ppm	0.0 ppm		No odors or staining
GP-26 F	8.0 - 10.0	Wet fine sand/silt; trace clay	9.0 ppm	6.0 ppm	1 - 10	Some odors, staining
GP-27 A	0.0 - 0.5	Fine sand/silt; fill material	0.0 ppm	0.0 ppm	1 - 10	No odors or staining
GP-27 B	0.5 - 2.0	Fine sand/silt; fill material	0.0 ppm	0.0 ppm		No odors or staining
GP-27 C	2.0 - 4.0	Fine sand/silt; ash	0.0 ppm	0.0 ppm		No odors or staining
GP-27 D	4.0 - 6.0	Moist fine sand/silt; trace clay	0.0 ppm	0.0 ppm	1 - 10	No odors or staining
GP-27 E	6.0 - 8.0	Moist fine sand/silt; trace clay	0.0 ppm	0.0 ppm		No odors or staining
GP-27 F	8.0 - 10.0	Wet fine sand/silt (GW=9.9')	0.0 ppm	0.0 ppm		No odors or staining

** Sample analyzed for PCBs (8080), VOCs (8240), Semi-VOCs (8270), and Metals (200.7).*

*** Sample analyzed for VOCs (8240), Semi-VOCs (8270), and Metals (200.7), ONLY.*

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SOIL SCREENING LOG

Trench Excavations

Project ID: *Brownfield Restoration Project*

Site Name: *Former Brown Manufacturing Site*

Location: *101 Chester Street - Syracuse, New York*

Date: *7/30/1998*

C & H Project Number: *26042*

NYSDEC Project Number: *B-00024-7*

Trench I.D.	Length (ft.)	Depth (ft.)	Description	In-Situ PID	Headspace PID	PCB Immunoassay	Remarks
T-1 A	0 - 9	0 - 3	Brick, conc., rebar, metal, wood, stone	0.0 ppm			Some odors & staining
T-1 B	0 - 9	3 - 4	Ash, conc., fine sand/silt, rebar	3.0-5.0 ppm			Some odors; Dark staining
T-1 C	0 - 9	4	Conc. slab				
T-1 D	9 - 10	2 - 2	Conc. foundation				
T-1 E	10 - 20	0 - 3	Brick, conc., rebar, stone, sand/silt	3.0 ppm			Some odors; Dark staining
T-1 F	10 - 20	3 - 5	Ash, moist sand/silt	1.0 ppm			No odors; Some staining
T-1 G	10 - 20	5	Groundwater				
T-1 H	20 - 30	0 - 3	Brick, conc. fill	0.0 ppm			No odors or staining
T-1 I	20 - 30	3 - 5	Ash, moist sand/silt	1.0 ppm			Some odors; Dark staining
T-1 J	30 - 50	0 - 2	Brick, conc. fill	0.0 ppm			No odors or staining
T-1 K	30 - 50	2 - 5	Ash, moist sand/silt	0.0 ppm			Some odors; Dark staining
T-1 L	31	5	[SOIL SAMPLE COLLECTED]	0.0 ppm	2.0 ppm	10-50 ppm	Some odors; Dark staining
T-1 M	50 - 100	0 - 2	Brick, conc., rebar	0.0 ppm			No odors or staining
T-1 N	50 - 100	2 - 5	Ash, sand/silt, brick, conc.	0.0-1.0 ppm			Strong odors; Dark staining
T-1 O	60	5	[SOIL SAMPLE COLLECTED]	0.0-1.0 ppm	1.1 ppm	1-10 ppm	Strong odors; Dark staining
T-1 P	77	5	[SOIL SAMPLE COLLECTED]	0.0-1.0 ppm	2.8 ppm	10-50 ppm	Strong odors; Dark staining
* T-1 Q	84	5	[SOIL SAMPLE COLLECTED]	0.0-1.0 ppm	6.6 ppm	10-50 ppm	Strong odors; Dark staining

* Sample analyzed for PCBs (8080), VOCs (8240), Semi-VOCs (8270), and Metals (200.7).

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SOIL SCREENING LOG

Trench Excavations

Project ID: *Brownfield Restoration Project*

Site Name: *Former Brown Manufacturing Site*

Location: *101 Chester Street - Syracuse, New York*

Date: *7/30/1998*

C & H Project Number: *26042*

NYSDEC Project Number: *B-00024-7*

Trench I.D.	Length (ft.)	Depth (ft.)	Description	In-Situ PID	Headspace PID	PCB Immunoassay	Remarks
T-2 A	*0 - 100*	*0 - 2*	*Conc., top soil, organics, sand/silt*	*0.0 ppm*			*No odors or staining*
T-2 B	*0 - 100*	*2 - 5*	*Ash, fine sand/silt*	*0.5 ppm*			*No odors or staining*
T-2 C	*0 - 100*	*5 - 11*	*Fine sand, some silt*	*10.0-15.0 ppm*			*Odors & staining*
T-2 D	*12*	*9.5*	*[SOIL SAMPLE COLLECTED]*	*10.0-15.0 ppm*	*2.0 ppm*	*1-10 ppm*	*Some odors & staining*
T-2 E	*40*	*5*	*[SOIL SAMPLE COLLECTED]*	*10.0-15.0 ppm*	*1.4 ppm*	*<1 ppm*	*Some odors & staining*
T-2 F	*75*	*5*	*[SOIL SAMPLE COLLECTED]*	*10.0-15.0 ppm*	*1.6 ppm*	*1-10 ppm*	*Some odors & staining*
**T-2 G*	*92*	*11*	*[SOIL SAMPLE COLLECTED]*	*10.0-15.0 ppm*	*28.0 ppm*	*1-10 ppm*	*Strong odors; Dark staining*
T-3 A	*0 - 42*	*0 - 2*	*Top soil, organics, sand/silt*	*0.0 ppm*			*No odors or staining*
T-3 B	*0 - 42*	*2 - 5*	*Ash, fine sand/silt*	*1.0 ppm*			*Odors & staining*
T-3 C	*0 - 10*	*11*	*Fine sand, some silt*	*1.0 ppm*			*Odors & staining*
T-3 D	*43*	*0.5*	*Conc. slab (Trench terminated)*				

** Sample analyzed for PCBs (8080), VOCs (8240), Semi-VOCs (8270), and Metals (200.7).*

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SOIL SCREENING LOG

Trench Excavations

Project ID: *Brownfield Restoration Project*

Site Name: *Former Brown Manufacturing Site*

Location: *101 Chester Street - Syracuse, New York*

Date: *7/31/1998*

C & H Project Number: *26042*

NYSDEC Project Number: *B-00024-7*

Trench I.D.	Length (ft.)	Depth (ft.)	Description	In-Situ PID	Headspace PID	PCB Immunoassay	Remarks
T-4 A	*0 - 13*	*0 - 2*	*Brick, stone, organics, debris, sand/silt*	*0.0 ppm*			*No odors or staining*
T-4 B	*0 - 13*	*2 - 5*	*Ash, some fine sand/silt*	*1.0-2.0 ppm*			*Some odors & staining*
T-4 C	*0 - 13*	*5 - 9*	*Fine sand/silt, trace clay*	*5.0-7.0 ppm*			*Odors & staining*
T-4 D	*0 - 13*	*9 - 13*	*Wet sand/silt*	*5.0-10.0 ppm*			*Strong odors & staining*
T-4 E	*13 - 45*	*0 - 2*	*Organics, brick, misc. fill*	*0.0 ppm*			*No odors or staining*
T-4 F	*13 - 45*	*2 - 5*	*Ash, some fine sand/silt*	*1.0 ppm*			*Some odors & staining*
T-4 G	*13 - 45*	*5 - 9*	*Fine sand/silt, trace clay*	*5.0-10.0 ppm*			*Odors & staining*
T-4 H	*13 - 45*	*9 - 13*	*Wet sand/silt*	*10.0-15.0 ppm*			*Strong odors & staining*
**T-4 I*	*8*	*13*	*[SOIL SAMPLE COLLECTED]*	*5.0-10.0 ppm*	*25.0 ppm*	*1-10 ppm*	*Strong odors & staining*
***T-4 J*	*8*	*13*	*[OIL/WATER SAMPLE COLLECTED]*		*25.0-50.0 ppm*	*10-50 ppm*	*Strong odors*
T-4 K	*27*	*13*	*[SOIL SAMPLE COLLECTED]*	*10.0-15.0 ppm*	*40.0 ppm*	*<1 ppm*	*Strong odors & staining*
T-5 A	*0 - 10*	*0 - 2*	*Asphalt, sand/silt, organics, debris*	*0.0 ppm*			*No odors or staining*
T-5 B	*0 - 10*	*2 - 5*	*Ash, some fine sand/silt*	*0.0 ppm*			*No odors or staining*
T-5 C	*0 - 10*	*5 - 9*	*Fine sand/silt, trace clay*	*0.0 ppm*			*No odors or staining*
T-5 D	*0 - 10*	*9 - 13*	*Wet sand/silt*	*2.0-3.0 ppm*			*Some odors & staining*
**T-5 E*	*5*	*13*	*[SOIL SAMPLE COLLECTED]*	*2.0-3.0 ppm*	*11.0 ppm*	*<1 ppm*	*Some odors & staining*

** Soil sample analyzed for PCBs (8080), VOCs (8240), Semi-VOCs (8270), and Metals (200.7).*

*** Oil sample analyzed at laboratory for PCBs (8080), ONLY.*

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SOIL SCREENING LOG

Trench Excavations

Project ID: *Brownfield Restoration Project*

Site Name: *Former Brown Manufacturing Site*

Location: *101 Chester Street - Syracuse, New York*

Date: *7/31/1998*

C & H Project Number: *26042*

NYSDEC Project Number: *B-00024-7*

Trench I.D.	Length (ft.)	Depth (ft.)	Description	In-Situ PID	Headspace PID	PCB Immunoassay	Remarks
T-6 A	*0 - 31*	*0 - 6*	*Brick, gravel, wood, conc., debris*	*0.0 ppm*			*No odors or staining*
T-6 B	*30 - 31*	*2*	*Conc. foundation*				
T-6 C	*31 - 41*	*0 - 3*	*Organics, stone, debris*	*0.0 ppm*			*No odors or staining*
T-6 D	*31 - 41*	*3 - 3.5*	*Ash*	*0.0 ppm*			*No odors or staining*
T-6 E	*31 - 41*	*3.5 - 12*	*Fine sand/silt, trace clay*	*0.0 ppm*			*No odors; Dark soils*
T-6 F	*31 - 41*	*12 - 13*	*Wet fine sand/silt, gravel, trace clay*	*0.0 ppm*			*No odors; Dark soils*
**T-6 G*	*35*	*13*	*[SOIL SAMPLE COLLECTED]*	*0.0 ppm*	*0.0 ppm*	*<1 ppm*	*No odors; Dark soils*

** Soil sample analyzed for PCBs (8080), VOCs (8240), Semi-VOCs (8270), and Metals (200.7).*

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SOIL SCREENING LOG

Phase 2A Site Investigation
On-Site Trench Excavations

Site Name: Former Brown Manufacturing Site

NYSDEC Project Number: B-00024-7

Location: 101 Chester Street - Syracuse, New York

C & H Project Number: 26042

Date	Sample ID	Length (ft.)	Depth (ft.)	Description	In-Situ PID	Headspace PID	Remarks
11/15/1999	T7 - 1	11	4	Demo debris; Black/dark sand, silt, gravel	1.5 ppm	14.0 ppm	Odor; Stained soil & debris
11/15/1999	T7 - 2	23	3	Demo debris; Black/dark sand, silt, gravel	1.0 ppm	6.0 ppm	Odor; Stained soil & debris
11/15/1999	T7 - 3	52	3	Demo debris; Black/dark sand, silt, gravel	1.5 ppm	13.0 ppm	Odor; Stained soil & debris
11/15/1999	T7 - 4	60	14	Gray, moist silt with clay and sand	0.0 ppm	0.0 ppm	No odor; Stained soil
11/15/1999	T8 - 1	35	13	Gray, moist sand/silt with some gravel	3.0 ppm	130 ppm	Odor; Oil/sheen on GW
11/16/1999	T8 - 2	100	13	Gray, moist sand/silt with some gravel	10.0 ppm	40 ppm	Strong odor; Oil/sheen on GW
11/16/1999	T8 - 2 Dup.	100	13	Gray, moist sand/silt with some gravel	10.0 ppm	46 ppm	Strong odor; Oil/sheen on GW
11/16/1999	T9 - 1	5	13	Gray, moist gravel, sand, silt	0.0 ppm	1.8 ppm	No odor; Sheen on GW
11/17/1999	T9 - 2	60	11	Gray, moist gravel, sand, silt	1.0 ppm	3.5 ppm	No odor; Sheen on GW
11/17/1999	T10 - 1	9	12	Gray, moist gravel, sand, silt	3.0 ppm	2.0 ppm	Slight odor; Some sheen on GW
11/17/1999	T10 - 2	29	12	Moist sand/silt, some gravel	1.5 ppm	1.6 ppm	Slight odor; Some sheen on GW
11/17/1999	T10 - 3	45	12	Moist sand/silt, some gravel	1.0 ppm	2.2 ppm	Slight odor; Some sheen on GW

C&H engineers, p.c.
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SOIL SCREENING LOG

Phase 2A Site Investigation
On-Site Trench Excavations

Site Name: Former Brown Manufacturing Site

NYSDEC Project Number: B-00024-7

Location: 101 Chester Street - Syracuse, New York

C & H Project Number: 26042

Date	Sample ID	Length (ft.)	Depth (ft.)	Description	In-Situ PID	Headspace PID	Remarks
11/17/1999	T11 - 1	11	12	Gray, moist sand/silt, some gravel	2.5 ppm	4.4 ppm	Slight odor; Some sheen on GW
11/17/1999	T11 - 2	37	13	Gray, moist sand/silt, some gravel	15.0 ppm	32 ppm	Odor; Some sheen on GW
11/17/1999	T11 - 3	45	10	Gray, moist sand/silt, some gravel	60 ppm	84 ppm	Odor; Some sheen on GW
11/17/1999	T11 - 4	60	10	Gray, moist sand/silt, some gravel	50 ppm	89 ppm	Odor; Sheen & oil on GW
11/18/1999	T12 - 1	5	11	Gray, moist sand/silt, some gravel	1.0 ppm	2.0 ppm	Odor; Sheen & oil on GW
11/18/1999	T12 - 2	35	11	Gray, moist sand/silt, some gravel	15.0 ppm	29 ppm	Odor; Sheen & oil on GW
11/18/1999	T12 - 3	65	11	Gray, moist sand/silt, some gravel	25 ppm	40 ppm	Strong odor; Sheen & oil on GW
11/18/1999	T13 - 1	5	10	Gray, moist gravel, some sand/silt	5.0 ppm	10.3 ppm	Odor; Sheen & oil on GW
11/18/1999	T13 - 2	35	10	Gray, moist sand/silt, some gravel	0.0 ppm	0.0 ppm	No odor; No sheen or oil on GW
11/18/1999	T14 - 1	5	10	Gray, moist sand/silt, some gravel	0.0 ppm	1.0 ppm	No odor; No sheen or oil on GW
11/18/1999	T14 - 2	15	10	Gray, moist sand/silt, some gravel	0.0 ppm	1.4 ppm	No odor; No sheen or oil on GW

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SOIL SCREENING LOG

Phase 2A Site Investigation
On-Site Trench Excavations

Site Name: Former Brown Manufacturing Site

NYSDEC Project Number: B-00024-7

Location: 101 Chester Street - Syracuse, New York

C & H Project Number: 26042

Date	Sample ID	Length (ft.)	Depth (ft.)	Description	In-Situ PID	Headspace PID	Remarks
11/18/1999	T15 - 1	5	5	Demo debris; Black/dark sand, silt, gravel	1.0 ppm	3.7 ppm	Odor; Stained soil & debris
11/18/1999	T15 - 2	35	4	Demo debris; Black/dark sand, silt, gravel	1.0 ppm	2.8 ppm	Odor; Stained soil & debris

BEARDSLEY DESIGN ASSOCIATES

Architecture, Engineering & Landscape Architecture, P.C.

SOIL SCREENING LOG

Phase 2B Site Investigation
Off-Site Trench Excavations

Site Name: Former Brown Manufacturing Site

NYSDEC # B-00024-7

Location: 101 Chester Street - Syracuse, New York

BDA # 00618

Date	Sample ID	Location	Depth (ft.)	Soil Conditions/Observations	In-Situ PID	Headspace PID
5/15/2001	T16-1	141 Bellevue Ave. ±10 feet east of fence at 101 Chester St.	10.0	Moist/wet dark gray sand/silt; Odors	1.1 ppm	145 ppm
5/15/2001	T16-2	141 Bellevue Ave. ±30 feet east of fence at 101 Chester St.	10.0	Moist/wet dark gray sand/silt; Odors	0.0 ppm	19.3 ppm
5/15/2001	T17-1	102-104 Huron St. ±10 feet east of fence at 101 Chester St.	12.0	Moist/wet dark gray sand/silt; Odors	0.0 ppm	10.6 ppm
5/16/2001	T17-2	102-104 Huron St. ±64 feet east of fence at 101 Chester St.	11.0	Moist/wet gray sand/silt; No odors	0.0 ppm	0.0 ppm
5/16/2001	T18-1	106-108 Huron St. ±10 feet east of fence at 101 Chester St.	12.0	Moist/wet dark gray sand/silt; Odors	0.0 ppm	19.5 ppm
5/16/2001	T18-2	106-108 Huron St. ±64 feet east of fence at 101 Chester St.	11.0	Moist/wet gray sand/silt; No odors	0.0 ppm	0.0 ppm
5/16/2001	T19-1	110 Huron St. ±10 feet east of fence at 101 Chester St.	12.0	Moist/wet gray sand/silt; Odors	0.0 ppm	4.1 ppm
5/16/2001	T19-2	110 Huron St. ±64 feet east of fence at 101 Chester St.	10.5	Moist/wet gray sand/silt; No odors	0.0 ppm	0.1 ppm
5/17/2001	T20-1	112 Huron St. ±10 feet east of fence at 101 Chester St.	12.0	Moist/wet dark gray sand/silt; Odors	0.0 ppm	1.7 ppm
5/17/2001	T20-2	112 Huron St. ±50 feet east of fence at 101 Chester St.	11.0	Moist/wet dark gray sand/silt; Odors	0.0 ppm	1.6 ppm
5/17/2001	T21-1	114 Huron St. ±10 feet east of fence at 101 Chester St.	10.0	Moist/wet dark gray sand/silt; Odors	0.0 ppm	0.0 ppm
5/17/2001	T21-2	114 Huron St. ±64 feet east of fence at 101 Chester St.	11.0	Moist/wet gray sand/silt; No odors	0.0 ppm	0.0 ppm
5/17/2001	T22-1	119 Chester St. Northeast corner ±3 feet south of 101 Chester St.	9.0	Moist/wet gray sand/silt; No odors	0.0 ppm	0.0 ppm

IMMUNOASSAY TESTING LOG

Project: *Brownfield Restoration Project* Date: *7/23/1998*

Site: *Former Brown Manufacturing Site* C & H Project: *26042*

Address: *101 Chester Street - Syracuse, New York* NYSDEC Project: *B-00024-7*

Test No.	Sample ID	Photometer Value	PCB Conc. (ppm)
A 1	Neg. Control	1.51	< 1
A 2	Neg. Control Dup.	1.49	< 1
A 3	1 ppm Control	1.27	1
A 4	10 ppm Control	0.77	10
A 5	50 ppm Control	0.41	50
A 6	HB-1 (0.0'-0.5')	1.26	1 - 10
A 7	HB-2 (0.0'-0.5')	1.26	1 - 10
A 8	HB-3 (0.0'-0.5')	1.38	< 1
A 9	HB-4 (0.0'-0.5')	1.53	< 1
A 10	HB-5 (0.0'-0.5')	1.34	< 1
A 11	HB-6 (0.0'-0.5')	1.36	< 1
A 12	HB-7 (0.0'-0.5')	1.41	< 1
A 13	HB-8 (0.0'-0.5')	1.21	1 - 10
A 14	HB-9 (0.0'-0.5')	0.48	10 - 50
A 15	HB-10 (0.0'-0.5')	1.22	1 - 10
A 16	HB-10 Dup. (0.0'-0.5')	1.02	1 - 10
A 17	GP-1 (0.0'-0.5')	1.25	1 - 10
A 18	GP-2 (0.0'-0.5')	1.44	< 1
A 19	GP-3 (0.0'-0.5')	1.25	< 1
A 20	GP-4 (0.0'-0.5')	1.49	< 1

IMMUNOASSAY TESTING LOG

Project: *Brownfield Restoration Project* Date: *7/23/1998*

Site: *Former Brown Manufacturing Site* C & H Project: *26042*

Address: *101 Chester Street - Syracuse, New York* NYSDEC Project: *B-00024-7*

Test No.	Sample ID	Photometer Value	PCB Conc. (ppm)
B 1	Neg. Control	1.34	< 1
B 2	Neg. Control Dup.	1.35	< 1
B 3	1 ppm Control	0.96	1
B 4	10 ppm Control	0.53	10
B 5	50 ppm Control	0.27	50
B 6	GP-5 (0.0'-0.5')	1.05	< 1
B 7	GP-6 (0.0'-0.5')	1.20	< 1
B 8	GP-7 (0.0'-0.5')	1.21	< 1
B 9	GP-8 (0.0'-0.5')	1.08	< 1
B 10	GP-9 (0.0'-0.5')	1.00	< 1
B 11	GP-10 (0.0'-0.5')	0.76	1 - 10
B 12	GP-11 (0.0'-0.5')	1.16	< 1
B 13	GP-12 (0.0'-0.5')	0.92	1 - 10
B 14	GP-13 (0.0'-0.5')	0.54	1 - 10
B 15	GP-14 (0.0'-0.5')	0.74	1 - 10
B 16	GP-15 (0.0'-0.5')	1.09	< 1
B 17	GP-16 (0.0'-0.5')	0.75	1 - 10
B 18	GP-17 (0.0'-0.5')	0.80	1 - 10
B 19	GP-18 (0.0'-0.5')	1.11	< 1
B 20	GP-18 Dup. (0.0'-0.5')	1.10	< 1

IMMUNOASSAY TESTING LOG

Project: *Brownfield Restoration Project* Date: *7/23/1998*

Site: *Former Brown Manufacturing Site* C & H Project: *26042*

Address: *101 Chester Street - Syracuse, New York* NYSDEC Project: *B-00024-7*

Test No.	Sample ID	Photometer Value	PCB Conc. (ppm)
C 1	Neg. Control	1.37	< 1
C 2	Neg. Control Dup.	1.34	< 1
C 3	1 ppm Control	1.09	1
C 4	10 ppm Control	0.59	10
C 5	50 ppm Control	0.31	50
C 6	GP-19 (0.0'-0.5')	1.32	< 1
C 7	GP-20 (0.0'-0.5')	1.30	< 1
C 8	GP-21 (0.0'-0.5')	1.26	< 1
C 9	GP-22 (0.0'-0.5')	1.31	< 1
C 10	GP-23 (0.0'-0.5')	1.28	< 1
C 11	GP-24 (0.0'-0.5')	1.22	< 1
C 12	GP-25 (0.0'-0.5')	0.54	10 - 50
C 13	GP-26 (0.0'-0.5')	1.00	1 - 10
C 14	GP-27 (0.0'-0.5')	0.98	1 - 10
C 15	GP-1 (0.5'-2.0')	0.86	1 - 10
C 16	GP-2 (4.0'-5.7')	0.47	10 - 50
C 17	GP-3 (0.5'-2.0')	0.53	10 - 50
C 18	GP-3 Dup. (0.5'-2.0')	0.46	10 - 50
C 19	GP-4 (6.0'-8.0')	0.50	10 - 50
C 20	GP-5 (2.0'-4.0')	0.37	10 - 50

IMMUNOASSAY TESTING LOG

Project: *Brownfield Restoration Project* Date: *7/23/1998*

Site: *Former Brown Manufacturing Site* C & H Project: *26042*

Address: *101 Chester Street - Syracuse, New York* NYSDEC Project: *B-00024-7*

Test No.	Sample ID	Photometer Value	PCB Conc. (ppm)
D 1	Neg. Control	1.25	< 1
D 2	1 ppm Control	0.99	1
D 3	10 ppm Control	0.50	10
D 4	50 ppm Control	0.28	50
D 5	GP-6 (0.5'-2.0')	0.60	1 - 10
D 6	GP-7 (0.5'-2.0')	0.66	1 - 10
D 7	GP-8 (0.5'-2.0')	0.19	> 50
D 8	GP-9 (2.0'-4.0')	0.65	1 - 10
D 9	GP-10 (2.0'-4.0')	0.48	10 - 50
D 10	GP-11 (2.0'-4.0')	0.32	10 - 50
D 11	GP-12 (4.0'-5.2')	0.58	1 - 10
D 12	GP-13 (0.5'-2.0')	0.66	1 - 10
D 13	GP-14 (4.0'-8.0')	1.20	< 1
D 14	GP-15 (4.0'-6.0')	1.23	< 1
D 15	GP-16 (10.0'-12.0')	0.86	1 - 10
D 16	GP-17 (8.0'-10.0')	0.62	1 - 10
D 17	GP-17 Dup. (8.0'-10.0')	0.57	1 - 10
D 18	GP-18 (0.5'-2.0')	1.06	< 1
D 19	GP-19 (0.5'-2.0')	1.06	< 1

IMMUNOASSAY TESTING LOG

Project: *Brownfield Restoration Project* Date: *7/23/1998*

Site: *Former Brown Manufacturing Site* C & H Project: *26042*

Address: *101 Chester Street - Syracuse, New York* NYSDEC Project: *B-00024-7*

Test No.	Sample ID	Photometer Value	PCB Conc. (ppm)
E 1	*Neg. Control*	*1.26*	*< 1*
E 2	*1 ppm Control*	*0.86*	*1*
E 3	*10 ppm Control*	*0.49*	*10*
E 4	*50 ppm Control*	*0.22*	*50*
E 5	*GP-20 (8.0'-10.0')*	*0.93*	*< 1*
E 6	*GP-21 (6.0'-8.0')*	*1.23*	*< 1*
E 7	*GP-22 (4.0'-6.0')*	*1.12*	*< 1*
E 8	*GP-23 (8.0'-10.0')*	*0.83*	*1 - 10*
E 9	*GP-24 (4.0'-6.0')*	*0.69*	*1 - 10*
E 10	*GP-25 (2.0'-4.0')*	*0.50*	*1 - 10*
E 11	*GP-26 (8.0'-10.0')*	*0.70*	*1 - 10*
E 12	*GP-26 Dup. (8.0'-10.0')*	*0.76*	*1 - 10*
E 13	*GP-27 (4.0'-6.0')*	*0.63*	*1 - 10*

IMMUNOASSAY TESTING LOG

Project: *Brownfield Restoration Project* Date: *7/31/1998*

Site: *Former Brown Manufacturing Site* C & H Project: *26042*

Address: *101 Chester Street - Syracuse, New York* NYSDEC Project: *B-00024-7*

Test No.	Sample ID	Photometer Value	PCB Conc. (ppm)
1	*Neg. Control*	*1.41*	*< 1*
2	*Neg. Control Dup.*	*1.41*	*< 1*
3	*1 ppm Control*	*1.00*	*1*
4	*10 ppm Control*	*0.63*	*10*
5	*50 ppm Control*	*0.31*	*50*
6	*T-1 (L=31', D=5')*	*0.55*	*10 - 50*
7	*T-1 (L=60', D=5')*	*0.93*	*1 - 10*
8	*T-1 (L=77', D=5')*	*0.57*	*10 - 50*
9	*T-1 (L=84', D=5')*	*0.37*	*10 - 50*
10	*T-2 (L=12', D=9.5')*	*1.31*	*< 1*
11	*T-2 (L=40', D=5')*	*0.92*	*1 - 10*
12	*T-2 (L=75', D=5')*	*1.04*	*< 1*
13	*T-2 (L=92', D=11')*	*0.75*	*1 - 10*
14	*T-4 (L=8', D=13')*	*0.69*	*1 - 10*
15	*T-4 (L=27', D=13')*	*1.13*	*< 1*
16	*T-4 Dup. (L=27', D=13')*	*1.08*	*< 1*
17	*T-5 (L=5', D=13')*	*1.26*	*< 1*
18	*T-6 (L=35', D=13')*	*1.62*	*< 1*
19	*T-4 (Oil)*	*0.55*	*10 - 50*

APPENDIX B

PHASE I ANALYTICAL DATA

DATA USABILITY SUMMARY REPORT

for

BEARDSLEY DESIGN ASSOCIATES

431 EAST FAYETTE STREET

EAST SYRACUSE, NY 13202

FORMER BROWN MANUFACTURING SITE
SDG CH08
Sampled 7/20-22/98, 7/30/98, 8/6/98

SOILS and AQUEOUS SAMPLES for VOLATILE ORGANICS

HB-9	(20598180)	GP-2	(20598181)	GP-8	(20598182)
GP-5	(20598183)	GP-13	(20598184)	GP-16	(20598185)
GP-17	(20598186)	GP-25	(20598187)	T-1	(21598005)
T-2	(21598006)	T-4	(21598007)	T-5	(21598008)
T-6	(21598009)	MW-1	(21998023)	MW-2	(21998024)
MW-3	(21998025)	MW-4	(21998026)	MW-5	(21998027)

DATA ASSESSMENT

A volatile organics data package containing analytical results for thirteen soils and five aqueous samples was received from Beardsley Design Associates on 16Nov01. The ASP deliverables package included formal reports, raw data, the necessary QC, and supporting information. The samples, taken from the Former Brown Manufacturing site, were identified by Chain of Custody documents and trackable through the work of Upstate Laboratories, Inc., the laboratory contracted for analysis. Analyses, performed according to SW-846 Method 8240, addressed Target Compound List analytes. Laboratory data was evaluated according to the Quality Assurance / Quality Control Requirements of the New York State Department of Environmental Conservation's Analytical Services Protocol (ASP), September 1989, Rev. 6/2000. When ASP protocol was not followed, the current EPA Region II Functional Guidelines (SPO NO. HW-6, Rev. #8, Jan. 1992, CLP Organics Data Review and Preliminary Review), was used as a technical reference.

When present in samples, acetone, methylene chloride, and TIC's identified as hexane and Freon 113 are assumed to represent laboratory or program artifacts. These analytes should be considered undetected in program samples. One exception is noted. The acetone concentration detected in GP-5 exceeded the range requiring qualification.

The chloroform concentrations detected in ten samples have been qualified as estimations. Chloroform is also assumed to represent a program or laboratory artifact. The reported concentrations can not be completely ignored, however, because chloroform was not detected in associated blanks. The presence of chloroform should only be considered significant if consistent with site history.

The 1,1,2,2-tetrachloroethane, bromoform and dibromochloromethane results reported from each groundwater sample have been qualified due to poor calibration performance.

Positive analyte results reported from GP-2 and GP-5 have been qualified as estimations due to high surrogate standard recoveries.

Analytes dependant upon the response if internal standards #2 and #3 have been qualified as estimations in GP-8, GP-5 and GP-25. Analytes dependant upon the response of Internal Standard #3 have also been qualified as estimations in GP-2 and GP-16. A low response was reported for each affected internal standard.

The identification of benzene in GP-5, and o-xylene in T-2 and T-4 could not be confirmed, based on the reference mass spectra included in the raw data. Benzene and o-xylene should be considered undetected in the affected samples.

Library searches were performed to identify each reported Tentatively Identified Compound (TIC). When the supporting mass spectra

failed to provide a conclusive identification, or when a more definitive identification was possible, Form 1E was edited.

CORRECTNESS AND USABILITY

Cooler temperatures between 11.9°C and 14.9°C were reported when this group of samples arrived at the laboratory. Because the samples were not properly chilled to 4°C at the time of collection, the possibility of volatile and degradative losses cannot be ignored. The results reported from this group of samples have been qualified as estimations. In addition, sample T-1 was held in the laboratory for three weeks prior to analysis. Results obtained from this sample have been rejected.

Reported data should be considered technically usable in its present form. Reported concentrations that are felt to provide a usable estimation of the conditions being measured have been flagged "J" or "UJ". Data that is felt to be unusable has been identified with a single red line and flagged "R". Rejected data should not be included in data tables. Estimated data should be used with caution. A detailed discussion of the review process follows.

Two facts should be considered by all data users. No compound concentration, even if it has passed all QC testing, can be guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error. Secondly. DATAVAL, Inc. guarantees the quality of this data assessment. However, DATAVAL, Inc. does not warrant any interpretation or utilization of this data by a third party.

Reviewer's signature: James B. Baldwin Date: 4/21/02

SAMPLE HISTORY

Analyte concentrations can deteriorate with time due to chemical instability, bacterial degradation or volatility. Samples that are not properly preserved or are not analyzed within established holding times may no longer be considered representative. Holding times are calculated from the time of sample collection. Samples must remain chilled to 4°C from the time of collection. VOA analyses must be completed within 14 days of receipt. Each sample delivery group, containing up to 20 samples, should include a field duplicate, a matrix spike, matrix spike duplicate, and a rinsate blank.

This sample delivery group, which included thirteen soils and five acid preserved aqueous samples, was collected from the Former Brown Manufacturing site between 20Jul98 and 06Aug98. The samples were delivered to the laboratory in five groups (samples collected on 20Jul98, samples collected on 21Jul98, samples collected on 22Jul98, samples collected on 30Jul98 and 31Jul98, and samples collected on 06Aug98). Each group of samples arrived at the laboratory within 2 days of collection. A custody seal was present on every sample cooler, with the exception of the cooler used to transport the groundwater samples collected on 06Aug98. The groundwaters were sampled and immediately delivered to the laboratory. This delivery group also contained three trip blanks, and an equipment blank that was created on 20Jul98.

Although the laboratory record indicates that most of the sample coolers contained ice, the loading was inadequate to properly chill the samples. Sample temperatures between 11.9°C and 14.9°C were recorded by the laboratory at the time of receipt. Due to the possibility of analyte losses caused by improper handling, the results reported from this group of samples have been qualified as estimations.

The analysis of each sample except T-1 was completed within the program holding time limitation. T-1 was held for 21 days prior to analysis. Based on the length of this excedence, and because the sample was originally received warm, results reported from T-1 must be considered unreliable. This information should not be included in data tables.

BLANKS

Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Method blanks are analyzed to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank. Any sample concentration less than 5 times the level determined in a blank must be qualified. The qualification criteria is extended to ten times the concentration observed in blanks for common laboratory artifacts. These include acetone, methylene chloride and 2-butanone. Chloroform is also frequently present as a laboratory artifact.

Six method blanks, three trip blanks, an equipment blank, and two holding blanks were analyzed with this group of samples. Five of the method blanks contained traces of methylene chloride. Chloromethane, methylene chloride and acetone were also present in blanks. Hexane, 1,1,2-trichlorotrifluoroethane and an unknown eluting at 5.74 minutes were also reported as Tentatively Identified Compounds (TIC). When present in samples, similar artifacts should be interpreted as undetected. A detection limit equaling CRDL or the reported concentration, whichever is greater, should be assumed. It is noted that the acetone concentration reported from GP-5 exceeded the range requiring qualification.

Traces of chloroform were also detected throughout this group of samples. The presence of chloroform appears to represent a laboratory artifact. When present, the reported chloroform concentrations have been flagged as estimations. They have not been removed from sample reports because chloroform was not detected in the associated blanks. The presence of chloroform should only be considered significant if consistent with site history.

MS TUNING

Mass spectrometer tuning and performance criteria are established to ensure sufficient mass resolution and sensitivity to accurately detect and identify targeted analytes. Verification is accomplished using a certified standard.

An Instrument Performance Check Standard of BFB was analyzed prior to each analytical sequence and during every 12 hour period of instrument operation. An Instrument Performance Check Form is present for each BFB evaluation. The BFB tunes associated with this group of samples satisfied the program acceptance criteria.

CALIBRATION

Requirements for instrument calibration are established to ensure that laboratory equipment is capable of producing accurate, quantitative data. Initial calibrations demonstrate a range through which measurements may be made. Continuing calibration standards verify instrument stability.

The required levels of initial calibration were performed on 29Jul98, 01Aug98, 07Aug98. The 01Aug98 calibration incorporated a heated purge. Each sequence of calibration standards included analyte concentrations of 10, 20, 50, 100 and 200 µg/l. During the initial instrument calibrations, most targeted analytes produced the required levels of instrument response and an acceptable degree of linearity.

During the 29Jul98 and 07Aug98 calibrations, 1,1,2,2-tetrachloroethane standards failed to produce the required minimum levels of instrument response, and bromomethane demonstrated poor linearity. In each case, the response of these analytes was sufficient to assume they would be detected if present in samples. Because they

were not detected, 1,1,2,2-tetrachloroethane and bromomethane results have been left unqualified.

Continuing calibration verification standards were analyzed prior to each twelve hour period of instrument operation. In most cases, these checks demonstrated an acceptable level of instrument stability.

When compared to the initial calibrations, unacceptable changes were observed in the response of dibromochloromethane on 20Aug98, and bromoform on 03Aug98 and 20Aug98. 1,1,2,2-Tetrachloroethane also failed to produce the required minimum level of instrument response during both of these checks, and on 10Aug98. Based on this performance, the 1,1,2,2-tetrachloroethane result reported from each aqueous sample has been qualified as a estimation. The bromoform results reported from every sample except the Trip Blank and Holding Blank received on 31Jul98 have been similarly qualified. The dibromochloromethane results reported from each groundwater sample and the Trip Blank received on 06Aug98 have also been qualified as estimations.

SURROGATES

Each sample, blank and standard is spiked with surrogate compounds prior to analysis. The structures of surrogates are similar to analytes of interest, but they are not normally found in environmental samples. Surrogate recoveries are monitored to evaluate overall laboratory performance and the efficiency of laboratory technique.

Surrogate standard summary reports were properly prepared; the correct acceptance criteria applied. The surrogate standard recoveries reported from this group of samples included unacceptably high results for the 4-bromofluorobenzene additions to GP-17, GP-2 and GP-5, and the toluene-d8 addition to GP-5. GP-2 and GP-17 were reanalyzed, producing similar results. GP-5 was reanalyzed at a higher dilution. Based on this performance, the positive analyte results reported from the initial analyses of GP-2 and GP-5 have been qualified as estimations. The negative results reported from GP-17 have been left unqualified.

INTERNAL STANDARDS

Internal standards are added to each sample, blank and standard just prior to injection. Analyte concentrations are calculated relative to the response of a specific internal standard. Internal standard performance criteria ensure that GC/MS sensitivity and response are stable during the analysis of each sample. The area of internal standard peaks may not vary by more than a factor of two. When compared to the preceding calibration check, retention times may not vary by more than 30 seconds.

The laboratory correctly calculated control limits for internal standard response and retention times. The response produced by the internal standard additions to GP-2, GP-5, GP-8, GP-16 and

GP-25 failed to satisfy the calculated limits of acceptance. Each affected sample was reanalyzed. Only the repeated analyses of GP-16 and GP-25 produced an improvement. This information should be included in data tables. The remaining repeated analyses should be ignored. The observed performance would require the qualification of analytes associated with each affected internal standard. However, because data from this group of samples has been previously qualified, an action at this tim is not required.

MATRIX SPIKES / MATRIX SPIKE DUPLICATES / MATRIX SPIKED BLANKS

Matrix spiking refers to the addition of known analyte concentrations to a sample, prior to analysis. Analyte recoveries provide an indication of laboratory accuracy. The analysis of a duplicate spiked aliquot provides a measurement of precision.

MW-01 and T-01 were selected for matrix spiking. The recoveries reported for analyte additions to two portions of each of these samples demonstrated acceptable levels of analytical precision and accuracy. Acceptable recoveries were also obtained from six spiked blanks. It is noted, however, that MS/MSD samples were not prepared with a low level soil.

DUPLICATES

Two aliquots of the same sample are processed separately through all aspects of sample preparation and analysis. Results produced by the analysis of this pair of samples are compared as a measurement of precision. Poor precision may be indicative of sample non-homogeneity, method defects or poor laboratory technique.

Field split duplicates were not included in this group of samples.

REPORTED ANALYTES

Formal reports were provided for each sample. The data package also included total ion chromatograms and raw instrument printouts. Laboratory results have been adjusted to reflect sample size and moisture content. Reference mass spectra were provided to confirm the identification of each targeted analyte that was detected in this group of samples. It is noted that the identifications of benzene in GP-5, and o-xylene in T-02 and T-04 could not be conclusively confirmed using the mass spectra references supplied by the laboratory. Benzene and o-xylene should be considered undetected in the affected samples.

Tentatively Identified Compounds (TIC) were reported from this group of samples. Frequently, these identifications were not soundly supported by the library searches contained in the raw data. Where appropriate, Form 1E has been corrected.

It is noted that GP-5 was reanalyzed at an appropriate dilution to obtain acetone, 2-butanone and 4-methyl-2-pentanone measurements within the range of calibration.

SUMMARY OF QUALIFIED DATA

FORMER BROWN MANUFACTURING SITE — SAMPLED 7/20/98 thru 8/6/98

		HANDLING	BLANK ACETONE	BLANK METH CHLORIDE	BLANKS CHLOROFORM	SPECTRA ID TIC	BLANK TIC FREON 113	BLANKS HEXANE TIC
HB-9	(20598180)	ALL J/UJ	62UJ	17UJ	5J	EDIT		REMOVE
GP-2	(20598181)	ALL J/UJ	150UJ	160UJ	9J	EDIT		
GP-8	(20598182)	ALL J/UJ		89UJ	8J	EDIT	REMOVE	REMOVE
GP-5	(20598183)	ALL J/UJ		89UJ	13J	EDIT		REMOVE
GP-13	(20598184)	ALL J/UJ		28UJ	4J	EDIT	REMOVE	REMOVE
GP-16	(20598185)	ALL J/UJ		36UJ	4J	EDIT		REMOVE
GP-17	(20598186)	ALL UJ	250UJ	110UJ		EDIT		
GP-25	(20598187)	ALL J/UJ	71UJ	54UJ	2J		REMOVE	REMOVE
T-1	(21598005)	REJECT ALL						
T-2	(21598006)	ALL J/UJ	100UJ	86UJ		EDIT		
T-4	(21598007)	ALL J/UJ		66UJ		EDIT		
T-5	(21598008)	ALL UJ		36UJ		EDIT		
T-6	(21598009)	ALL UJ	68UJ	24UJ		EDIT		
MW-1	(21998023)	ALL J/UJ	12UJ	10UJ				
MW-2	(21998024)	ALL J/UJ	10UJ	10UJ	20J			
MW-3	(21998025)	ALL UJ		10UJ				
MW-4	(21998026)	ALL J/UJ	10UJ	10UJ	2J			
MW-5	(21998027)	ALL J/UJ	11UJ	10UJ	2J	EDIT		

SUMMARY OF QUALIFIED DATA

FORMER BROWN MANUFACTURING SITE — SAMPLED 7/20/98 thru 8/6/98

		CALIBRATE	INTERNAL STANDARDS	SURROGATES	SPECTRA ID TARGETS
HB-9	(20598180)				
GP-2	(20598181)		IS3 J/UJ	ALL POS J	
GP-8	(20598182)		IS2,3 UJ		
GP-5	(20598183)		IS2,3 J/UJ	ALL POS J	BENZENE UJ
GP-13	(20598184)				
GP-16	(20598185)		IS3 UJ		
GP-17	(20598186)				
GP-25	(20598187)		IS2,3 UJ		
T-1	(21598005)				
T-2	(21598006)				XYLENE UJ
T-4	(21598007)				XYLENE UJ
T-5	(21598008)				
T-6	(21598009)				
MW-1	(21998023)	CAL UJ			
MW-2	(21998024)	CAL UJ			
MW-3	(21998025)	CAL UJ			
MW-4	(21998026)	CAL UJ			
MW-5	(21998027)	CAL UJ			

CAL = 1,1,2,2-tetrachloroethane, bromoform, dibromochloromethane
IS2 = analytes associated with internal standard #2
IS3 = analytes associated with internal standard #3

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HB-9T

Lab Name: UPSTATE LABS INC. Contract: C&H ENGIN

Lab Code: 10170 Case No.: 01 SAS No.: SDG No.: CH07

Matrix: (soil/water) SOIL Lab Sample ID: 20598180

Sample wt/vol: 5.0 (g/ml) G Lab File ID: C0323.D

Level: (low/med) LOW Date Received: 07/22/98

% Moisture: not dec. 30 Date Analyzed: 08/03/98

GC Column: 502.2 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG		Q
74-87-3	chloromethane		14	U
75-01-4	vinyl chloride		14	U
74-83-9	bromomethane		14	U
75-00-3	chloroethane		14	U
67-64-1	acetone		62	UJ
75-35-4	1,1-dichloroethene		14	U
75-15-0	carbon disulfide		14	U
75-09-2	methylene chloride		17	BUJ
156-60-5	trans-1,2-dichloroethene		14	U
75-34-33	1,1-dichloroethane		14	U
156-59-2	cis-1,2-dichloroethene		14	U
78-93-2	2-butanone		14	U
67-66-3	chloroform		5	J
107-06-2	1,2-dichloroethane		14	U
71-55-6	1,1,1-trichloroethane		14	U
56-23-5	carbon tetrachloride		14	U
71-43-2	benzene		2	J
79-01-6	trichloroethene		14	U
78-87-5	1,2-dichloropropane		14	U
75-27-4	bromodichloromethane		14	U
10061-1-5	cis-1,3-dichloropropene		14	U
10061-2-6	trans-1,3-dichloropropene		14	U
79-00-5	1,1,2-trichloroethane		14	U
124-48-1	dibromochloromethane		14	U
75-25-2	bromoform		14	U
108-10-1	4-methyl-2-pentanone		14	U
108-88-3	toluene		2	J
591-78-6	2-hexanone		14	U
127-18-4	tetrachloroethene		14	U
108-90-7	chlorobenzene		14	U
100-41-4	ethylbenzene		14	U
	m,p-xylene		4	J
95-47-6	o-xylene		14	U
100-42-5	styrene		14	U
79-34-5	1,1,2,2-tetrachloroethane		14	U

LVO 10/2/98

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
GP-2T

Lab Name: UPSTATE LABS INC. Contract: C&H ENGIN
Lab Code: 10170 Case No.: 01 SAS No.: SDG No.: CH07
Matrix: (soil/water) SOIL Lab Sample ID: 20598181
Sample wt/vol: 2.0 (g/ml) G Lab File ID: C0320.D
Level: (low/med) LOW Date Received: 07/23/98
% Moisture: not dec. 11 Date Analyzed: 08/03/98
GC Column: 502.2 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG		Q
74-87-3	chloromethane	28	U	
75-01-4	vinyl chloride	28	U	
74-83-9	bromomethane	28	U	UJ
75-00-3	chloroethane	28	U	
67-64-1	acetone	150	UJ	✓
75-35-4	1,1-dichloroethene	28	U	
75-15-0	carbon disulfide	28	U	UJ
75-09-2	methylene chloride	160	BUJ	✓
156-60-5	trans-1,2-dichloroethene	28	U	
75-34-33	1,1-dichloroethane	28	U	
156-59-2	cis-1,2-dichloroethene	28	U	UJ
78-93-2	2-butanone	28	U	
67-66-3	chloroform	9	J	✓
107-06-2	1,2-dichloroethane	28	U	
71-55-6	1,1,1-trichloroethane	28	U	
56-23-5	carbon tetrachlorlde	28	U	
71-43-2	benzene	28	U	
79-01-6	trichloroethene	28	U	
78-87-5	1,2-dichloropropane	28	U	
75-27-4	bromodichloromethane	28	U	
10061-1-5	cis-1,3-dichloropropene	28	U	UJ
10061-2-6	trans-1,3-dichloropropene	28	U	
79-00-5	1,1,2-trichloroethane	28	U	
124-48-1	dibromochloromethane	28	U	
75-25-2	bromoform	28	U	
108-10-1	4-methyl-2-pentanone	28	U	
108-88-3	toluene	9	J	✓
591-78-6	2-hexanone	28	U	
127-18-4	tetrachloroethene	28	U	
108-90-7	chlorobenzene	28	U	UJ
100-41-4	ethylbenzene	28	U	
	m,p-xylene	13	J	✓
95-47-6	o-xylene	11	J	✓
100-42-5	styrene	28	U	
79-34-5	1,1,2,2-tetrachloroethane	28	U	UJ

YM

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GP-5T

Lab Name: UPSTATE LABS INC. Contract: C&H ENGIN

Lab Code: 10170 Case No.: 01 SAS No.: SDG No.: CH07

Matrix: (soil/water) SOIL Lab Sample ID: 20598183

Sample wt/vol: 5.0 (g/ml) G Lab File ID: C0322.D

Level: (low/med) LOW Date Received: 07/23/98

% Moisture: not dec. 14 Date Analyzed: 08/03/98

GC Column: 502.2 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	chloromethane	12	U
75-01-4	vinyl chloride	12	U
74-83-9	bromomethane	12	U
75-00-3	chloroethane	12	U
67-64-1	acetone	1700 ~~1000~~	E D J
75-35-4	1,1-dichloroethene	12	U
75-15-0	carbon disulfide	12	U
75-09-2	methylene chloride	89	B U J
156-60-5	trans-1,2-dichloroethene	12	U
75-34-33	1,1-dichloroethane	12	U
156-59-2	cis-1,2-dichloroethene	12	U
78-93-2	2-butanone	360 ~~300~~	E D J
67-66-3	chloroform	13	J
107-06-2	1,2-dichloroethane	12	U
71-55-6	1,1,1-trichloroethane	12	U
56-23-5	carbon tetrachloride	12	U
71-43-2	benzene	12 ~~6~~	J U J
79-01-6	trichloroethene	12	U
78-87-5	1,2-dichloropropane	12	U
75-27-4	bromodichloromethane	12	U
10061-1-5	cis-1,3-dichloropropene	12	U
10061-2-6	trans-1,3-dichloropropene	12	U
79-00-5	1,1,2-trichloroethane	12	U
124-48-1	dibromochloromethane	12	U
75-25-2	bromoform	12	U
108-10-1	4-methyl-2-pentanone	200 ~~260~~	E D J
108-88-3	toluene	15	J
591-78-6	2-hexanone	86	J
127-18-4	tetrachloroethene	12	U
108-90-7	chlorobenzene	12	U
100-41-4	ethylbenzene	14	J
	m,p-xylene	22	J
95-47-6	o-xylene	21	J
100-42-5	styrene	12	U
79-34-5	1,1,2,2-tetrachloroethane	12	U

0000533

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GP-8T

Lab Name: UPSTATE LABS INC. Contract: C&H ENGIN

Lab Code: 10170 Case No.: 01 SAS No.: _____ SDG No.: CH07

Matrix: (soil/water) SOIL Lab Sample ID: 20598182

Sample wt/vol: 5.0 (g/ml) G Lab File ID: C0321.D

Level: (low/med) LOW Date Received: 07/23/98

% Moisture: not dec. 14 Date Analyzed: 08/03/98

GC Column: 502.2 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
74-87-3	chloromethane	12	U
75-01-4	vinyl chloride	12	U
74-83-9	bromomethane	12	U
75-00-3	chloroethane	12	U
67-64-1	acetone	12	U
75-35-4	1,1-dichloroethene	12	U
75-15-0	carbon disulfide	12	U
75-09-2	methylene chloride	89	BUJ
156-60-5	trans-1,2-dichloroethene	12	U
75-34-33	1,1-dichloroethane	12	U
156-59-2	cis-1,2-dichloroethene	12	U
78-93-2	2-butanone	12	U
67-66-3	chloroform	8	J
107-06-2	1,2-dichloroethane	12	U
71-55-6	1,1,1-trichloroethane	12	U
56-23-5	carbon tetrachloride	12	U
71-43-2	benzene	12	U
79-01-6	trichloroethene	12	U
78-87-5	1,2-dichloropropane	12	U
75-27-4	bromodichloromethane	12	U
10061-1-5	cis-1,3-dichloropropene	12	U
10061-2-6	trans-1,3-dichloropropene	12	U
79-00-5	1,1,2-trichloroethane	12	U
124-48-1	dibromochloromethane	12	U
75-25-2	bromoform	12	U
108-10-1	4-methyl-2-pentanone	12	U
108-88-3	toluene	12	U
591-78-6	2-hexanone	12	U
127-18-4	tetrachloroethene	12	U
108-90-7	chlorobenzene	12	U
100-41-4	ethylbenzene	12	U
	m,p-xylene	12	U
95-47-6	o-xylene	12	U
100-42-5	styrene	12	U
79-34-5	1,1,2,2-tetrachloroethane	12	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GP13T

Lab Name: UPSTATE LABS INC. Contract: C&H ENGIN

Lab Code: 10170 Case No.: 01 SAS No.: _____ SDG No.: CH07

Matrix: (soil/water) SOIL Lab Sample ID: 20598184

Sample wt/vol: 5.0 (g/ml) G Lab File ID: C0327.D

Level: (low/med) LOW Date Received: 07/24/98

% Moisture: not dec. 7 Date Analyzed: 08/03/98

GC Column: 502.2 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
74-87-3	chloromethane	11	U
75-01-4	vinyl chloride	11	U
74-83-9	bromomethane	11	U
75-00-3	chloroethane	11	U
67-64-1	acetone	11	U
75-35-4	1,1-dichloroethene	11	U
75-15-0	carbon disulfide	11	U
75-09-2	methylene chloride	11	U
156-60-5	trans-1,2-dichloroethene	28	B U
75-34-33	1,1-dichloroethane	11	U
156-59-2	cis-1,2-dichloroethene	11	U
78-93-2	2-butanone	11	U
67-66-3	chloroform	11	U
107-06-2	1,2-dichloroethane	4	J
71-55-6	1,1,1-trichloroethane	11	U
56-23-5	carbon tetrachloride	11	U
71-43-2	benzene	11	U
79-01-6	trichloroethene	11	U
78-87-5	1,2-dichloropropane	11	U
75-27-4	bromodichloromethane	11	U
10061-1-5	cis-1,3-dichloropropene	11	U
10061-2-6	trans-1,3-dichloropropene	11	U
79-00-5	1,1,2-trichloroethane	11	U
124-48-1	dibromochloromethane	11	U
75-25-2	bromoform	11	U
108-10-1	4-methyl-2-pentanone	11	U
108-88-3	toluene	11	U
591-78-6	2-hexanone	11	U
127-18-4	tetrachloroethene	11	U
108-90-7	chlorobenzene	11	U
100-41-4	ethylbenzene	11	U
	m,p-xylene	11	U
95-47-6	o-xylene	11	U
100-42-5	styrene	11	U
79-34-5	1,1,2,2-tetrachloroethane	11	U

UJ

UJ

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LMD

LMD 10/2/98

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GP16T RE

Lab Name: UPSTATE LABS INC. Contract: C&H ENGIN

Lab Code: 10170 Case No.: 01 SAS No.: SDG No.: CH07

Matrix: (soil/water) SOIL Lab Sample ID: 20598185RE

Sample wt/vol: 5.0 (g/ml) G Lab File ID: C0328.D

Level: (low/med) LOW Date Received: 07/24/98

% Moisture: not dec. 6 Date Analyzed: 08/03/98

GC Column: 502.2 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
74-87-3	chloromethane	11	U
75-01-4	vinyl chloride	11	U
74-83-9	bromomethane	11	U
75-00-3	chloroethane	11	U
67-64-1	acetone	11	U
75-35-4	1,1-dichloroethene	11	U
75-15-0	carbon disulfide	11	U
75-09-2	methylene chloride	36	BUJ
156-60-5	trans-1,2-dichloroethene	11	U
75-34-33	1,1-dichloroethane	11	U
156-59-2	cis-1,2-dichloroethene	11	U
78-93-2	2-butanone	11	U
67-66-3	chloroform	4	J
107-06-2	1,2-dichloroethane	11	U
71-55-6	1,1,1-trichloroethane	11	U
56-23-5	carbon tetrachloride	11	U
71-43-2	benzene	11	U
79-01-6	trichloroethene	11	U
78-87-5	1,2-dichloropropane	11	U
75-27-4	bromodichloromethane	11	U
10061-1-5	cis-1,3-dichloropropene	11	U
10061-2-6	trans-1,3-dichloropropene	11	U
79-00-5	1,1,2-trichloroethane	11	U
124-48-1	dibromochloromethane	11	U
75-25-2	bromoform	11	U
108-10-1	4-methyl-2-pentanone	11	U
108-88-3	toluene	11	U
591-78-6	2-hexanone	11	U
127-18-4	tetrachloroethene	11	U
108-90-7	chlorobenzene	11	U
100-41-4	ethylbenzene	11	U
	m,p-xylene	11	U
95-47-6	o-xylene	11	U
100-42-5	styrene	11	U
79-34-5	1,1,2,2-tetrachloroethane	11	U

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LP 10/2/98

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GP17T

Lab Name: UPSTATE LABS INC. Contract: C&H ENGIN

Lab Code: 10170 Case No.: 01 SAS No.: _____ SDG No.: CH07

Matrix: (soil/water) SOIL Lab Sample ID: 20598186

Sample wt/vol: 1.0 (g/ml) G Lab File ID: C0309.D

Level: (low/med) LOW Date Received: 07/24/98

% Moisture: not dec. 22 Date Analyzed: 08/02/98

GC Column: 502.2 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	chloromethane	64	U
75-01-4	vinyl chloride	64	U
74-83-9	bromomethane	64	U
75-00-3	chloroethane	64	U
67-64-1	acetone	250	U
75-35-4	1,1-dichloroethene	64	U
75-15-0	carbon disulfide	64	U
75-09-2	methylene chloride	110	B U
156-60-5	trans-1,2-dichloroethene	64	U
75-34-33	1,1-dichloroethane	64	U
156-59-2	cis-1,2-dichloroethene	64	U
78-93-2	2-butanone	64	U
67-66-3	chloroform	64	U
107-06-2	1,2-dichloroethane	64	U
71-55-6	1,1,1-trichloroethane	64	U
56-23-5	carbon tetrachloride	64	U
71-43-2	benzene	64	U
79-01-6	trichloroethene	64	U
78-87-5	1,2-dichloropropane	64	U
75-27-4	bromodichloromethane	64	U
10061-1-5	cis-1,3-dichloropropene	64	U
10061-2-6	trans-1,3-dichloropropene	64	U
79-00-5	1,1,2-trichloroethane	64	U
124-48-1	dibromochloromethane	64	U
75-25-2	bromoform	64	U
108-10-1	4-methyl-2-pentanone	64	U
108-88-3	toluene	64	U
591-78-6	2-hexanone	64	U
127-18-4	tetrachloroethene	64	U
108-90-7	chlorobenzene	64	U
100-41-4	ethylbenzene	64	U
	m,p-xylene	64	U
95-47-6	o-xylene	64	U
100-42-5	styrene	64	U
79-34-5	1,1,2,2-tetrachloroethane	64	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GP25T RE

Lab Name: UPSTATE LABS INC. Contract: C&H ENGIN

Lab Code: 10170 Case No.: 01 SAS No.: SDG No.: CH07

Matrix: (soil/water) SOIL Lab Sample ID: 20598187RE

Sample wt/vol: 5.0 (g/ml) G Lab File ID: C0338.D

Level: (low/med) LOW Date Received: 07/24/98

% Moisture: not dec. 12 Date Analyzed: 08/04/98

GC Column: 502.2 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
74-87-3	chloromethane	11	U
75-01-4	vinyl chloride	11	U
74-83-9	bromomethane	11	U
75-00-3	chloroethane	11	U
67-64-1	acetone	71	BUJ
75-35-4	1,1-dichloroethene	11	U
75-15-0	carbon disulfide	11	U
75-09-2	methylene chloride	54	BU
156-60-5	trans-1,2-dichloroethene	11	U
75-34-33	1,1-dichloroethane	11	U
156-59-2	cis-1,2-dichloroethene	11	U
78-93-2	2-butanone	11	U
67-66-3	chloroform	2	J
107-06-2	1,2-dichloroethane	11	U
71-55-6	1,1,1-trichloroethane	11	U
56-23-5	carbon tetrachloride	11	U
71-43-2	benzene	11	U
79-01-6	trichloroethene	11	U
78-87-5	1,2-dichloropropane	11	U
75-27-4	bromodichloromethane	11	U
10061-1-5	cis-1,3-dichloropropene	11	U
10061-2-6	trans-1,3-dichloropropene	11	U
79-00-5	1,1,2-trichloroethane	11	U
124-48-1	dibromochloromethane	11	U
75-25-2	bromoform	11	U
108-10-1	4-methyl-2-pentanone	11	U
108-88-3	toluene	11	U
591-78-6	2-hexanone	11	U
127-18-4	tetrachloroethene	11	U
108-90-7	chlorobenzene	11	U
100-41-4	ethylbenzene	11	U
	m,p-xylene	11	U
95-47-6	o-xylene	11	U
100-42-5	styrene	11	U
79-34-5	1,1,2,2-tetrachloroethane	11	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T-01T

Lab Name: UPSTATE LABS INC. Contract: C&H ENGIN

Lab Code: 10170 Case No.: 02 SAS No.: SDG No.: CH08

Matrix: (soil/water) SOIL Lab Sample ID: 21598005

Sample wt/vol: 6.0 (g/ml) G Lab File ID: E1965.D

Level: (low/med) MED Date Received: 07/31/98

% Moisture: not dec. 43 Date Analyzed: 08/20/98

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
74-87-3	chloromethane	1500	U
75-01-4	vinyl chloride	1500	U
74-83-9	bromomethane	1500	U
75-00-3	chloroethane	1500	U
67-64-1	acetone	1500	U
75-35-4	1,1-dichloroethene	1500	U
75-15-0	carbon disulfide	1500	U
75-09-2	methylene chloride	1200	BU
156-60-5	trans-1,2-dichloroethene	1500	U
75-34-33	1,1-dichloroethane	1500	U
156-59-2	cis-1,2-dichloroethene	1500	U
78-93-2	2-butanone	1500	U
67-66-3	chloroform	1500	U
107-06-2	1,2-dichloroethane	1500	U
71-55-6	1,1,1-trichloroethane	1500	U
56-23-5	carbon tetrachloride	1500	U
71-43-2	benzene	1500	U
79-01-6	trichloroethene	1500	U
78-87-5	1,2-dichloropropane	1500	U
75-27-4	bromodichloromethane	1500	U
10061-1-5	cis-1,3-dichloropropene	1500	U
10061-2-6	trans-1,3-dichloropropene	1500	U
79-00-5	1,1,2-trichloroethane	1500	U
124-48-1	dibromochloromethane	1500	U
75-25-2	bromoform	1500	U
108-10-1	4-methyl-2-pentanone	1500	U
108-88-3	toluene	~~1700~~	
591-78-6	2-hexanone	1500	U
127-18-4	tetrachloroethene	1500	U
108-90-7	chlorobenzene	1500	U
100-41-4	ethylbenzene	~~180~~	J
	m,p-xylene	~~190~~	J
95-47-6	o-xylene	1500	U
100-42-5	styrene	1500	U
79-34-5	1,1,2,2-tetrachloroethane	1500	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T-02T

Lab Name: UPSTATE LABS INC. Contract: C&H ENGIN

Lab Code: 10170 Case No.: 01 SAS No.: SDG No.: CH08

Matrix: (soil/water) SOIL Lab Sample ID: 21598006

Sample wt/vol: 1.0 (g/ml) G Lab File ID: C0353.D

Level: (low/med) LOW Date Received: 07/31/98

% Moisture: not dec. 17 Date Analyzed: 08/06/98

GC Column: 502.2 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND		Q
74-87-3	chloromethane	16	UJ
75-01-4	vinyl chloride	60	U
74-83-9	bromomethane	60	U
75-00-3	chloroethane	60	U
67-64-1	acetone	100	UJ
75-35-4	1,1-dichloroethene	60	U
75-15-0	carbon disulfide	13	UJ
75-09-2	methylene chloride	86	U
156-60-5	trans-1,2-dichloroethene	60	U
75-34-33	1,1-dichloroethane	60	U
156-59-2	cis-1,2-dichloroethene	60	U
78-93-2	2-butanone	60	U
67-66-3	chloroform	60	U
107-06-2	1,2-dichloroethane	60	U
71-55-6	1,1,1-trichloroethane	60	U
56-23-5	carbon tetrachloride	60	U
71-43-2	benzene	60	U
79-01-6	trichloroethene	60	U
78-87-5	1,2-dichloropropane	60	U
75-27-4	bromodichloromethane	60	U
10061-1-5	cis-1,3-dichloropropene	60	U
10061-2-6	trans-1,3-dichloropropene	60	U
79-00-5	1,1,2-trichloroethane	60	U
124-48-1	dibromochloromethane	60	U
75-25-2	bromoform	60	U
108-10-1	4-methyl-2-pentanone	60	U
108-88-3	toluene	60	U
591-78-6	2-hexanone	60	U
127-18-4	tetrachloroethene	60	U
108-90-7	chlorobenzene	60	U
100-41-4	ethylbenzene	60	U
	m,p-xylene	330	J
95-47-6	o-xylene	60 ~~65~~	UJ
100-42-5	styrene	60	U
79-34-5	1,1,2,2-tetrachloroethane	60	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T-04T

Lab Name: UPSTATE LABS INC. Contract: C&H ENGIN

Lab Code: 10170 Case No.: 01 SAS No.: SDG No.: CH08

Matrix: (soil/water) SOIL Lab Sample ID: 21598007

Sample wt/vol: 1.0 (g/ml) G Lab File ID: C0354.D

Level: (low/med) LOW Date Received: 07/31/98

% Moisture: not dec. 24 Date Analyzed: 08/06/98

GC Column: 502.2 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	chloromethane	66	U
75-01-4	vinyl chloride	66	U
74-83-9	bromomethane	66	U
75-00-3	chloroethane	66	U
67-64-1	acetone	66	U
75-35-4	1,1-dichloroethene	66	U
75-15-0	carbon disulfide	66	U
75-09-2	methylene chloride	~~38~~ 66	~~18~~ U
156-60-5	trans-1,2-dichloroethene	66	U
75-34-33	1,1-dichloroethane	66	U
156-59-2	cis-1,2-dichloroethene	66	U
78-93-2	2-butanone	66	U
67-66-3	chloroform	66	U
107-06-2	1,2-dichloroethane	66	U
71-55-6	1,1,1-trichloroethane	66	U
56-23-5	carbon tetrachloride	66	U
71-43-2	benzene	66	U
79-01-6	trichloroethene	66	U
78-87-5	1,2-dichloropropane	66	U
75-27-4	bromodichloromethane	66	U
10061-1-5	cis-1,3-dichloropropene	66	U
10061-2-6	trans-1,3-dichloropropene	66	U
79-00-5	1,1,2-trichloroethane	66	U
124-48-1	dibromochloromethane	66	U
75-25-2	bromoform	66	U
108-10-1	4-methyl-2-pentanone	66	U
108-88-3	toluene	66	U
591-78-6	2-hexanone	66	U
127-18-4	tetrachloroethene	66	U
108-90-7	chlorobenzene	66	U
100-41-4	ethylbenzene	66	U
	m,p-xylene	140	J
95-47-6	o-xylene	66 ~~36~~	J
100-42-5	styrene	66	U
79-34-5	1,1,2,2-tetrachloroethane	66	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T-05T

Lab Name: UPSTATE LABS INC. Contract: C&H ENGIN

Lab Code: 10170 Case No.: 01 SAS No.: SDG No.: CH08

Matrix: (soil/water) SOIL Lab Sample ID: 21598008

Sample wt/vol: 2.5 (g/ml) G Lab File ID: C0355.D

Level: (low/med) LOW Date Received: 07/31/98

% Moisture: not dec. 37 Date Analyzed: 08/06/98

GC Column: 502.2 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
74-87-3	chloromethane	32	U
75-01-4	vinyl chloride	32	U
74-83-9	bromomethane	32	U
75-00-3	chloroethane	32	U
67-64-1	acetone	32	U
75-35-4	1,1-dichloroethene	32	U
75-15-0	carbon disulfide	32	U
75-09-2	methylene chloride	36	B U
156-60-5	trans-1,2-dichloroethene	32	U
75-34-33	1,1-dichloroethane	32	U
156-59-2	cis-1,2-dichloroethene	32	U
78-93-2	2-butanone	32	U
67-66-3	chloroform	32	U
107-06-2	1,2-dichloroethane	32	U
71-55-6	1,1,1-trichloroethane	32	U
56-23-5	carbon tetrachloride	32	U
71-43-2	benzene	32	U
79-01-6	trichloroethene	32	U
78-87-5	1,2-dichloropropane	32	U
75-27-4	bromodichloromethane	32	U
10061-1-5	cis-1,3-dichloropropene	32	U
10061-2-6	trans-1,3-dichloropropene	32	U
79-00-5	1,1,2-trichloroethane	32	U
124-48-1	dibromochloromethane	32	U
75-25-2	bromoform	32	U
108-10-1	4-methyl-2-pentanone	32	U
108-88-3	toluene	32	U
591-78-6	2-hexanone	32	U
127-18-4	tetrachloroethene	32	U
108-90-7	chlorobenzene	32	U
100-41-4	ethylbenzene	32	U
	m,p-xylene	32	U
95-47-6	o-xylene	32	U
100-42-5	styrene	32	U
79-34-5	1,1,2,2-tetrachloroethane	32	U

UP 10/2/98

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T-06T

Lab Name: UPSTATE LABS INC. Contract: C&H ENGIN

Lab Code: 10170 Case No.: 01 SAS No.: SDG No.: CH08

Matrix: (soil/water) SOIL Lab Sample ID: 21598009

Sample wt/vol: 5.0 (g/ml) G Lab File ID: C0359.D

Level: (low/med) LOW Date Received: 07/31/98

% Moisture: not dec. 32 Date Analyzed: 08/06/98

GC Column: 502.2 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	chloromethane	15	U
75-01-4	vinyl chloride	15	U
74-83-9	bromomethane	15	U
75-00-3	chloroethane	15	U
67-64-1	acetone	68	UJ
75-35-4	1,1-dichloroethene	15	U
75-15-0	carbon disulfide	15	U
75-09-2	methylene chloride	24	BU
156-60-5	trans-1,2-dichloroethene	15	U
75-34-33	1,1-dichloroethane	15	U
156-59-2	cis-1,2-dichloroethene	15	U
78-93-2	2-butanone	15	U
67-66-3	chloroform	15	U
107-06-2	1,2-dichloroethane	15	U
71-55-6	1,1,1-trichloroethane	15	U
56-23-5	carbon tetrachloride	15	U
71-43-2	benzene	15	U
79-01-6	trichloroethene	15	U
78-87-5	1,2-dichloropropane	15	U
75-27-4	bromodichloromethane	15	U
10061-1-5	cis-1,3-dichloropropene	15	U
10061-2-6	trans-1,3-dichloropropene	15	U
79-00-5	1,1,2-trichloroethane	15	U
124-48-1	dibromochloromethane	15	U
75-25-2	bromoform	15	U
108-10-1	4-methyl-2-pentanone	15	U
108-88-3	toluene	15	U
591-78-6	2-hexanone	15	U
127-18-4	tetrachloroethene	15	U
108-90-7	chlorobenzene	15	U
100-41-4	ethylbenzene	15	U
	m,p-xylene	15	U
95-47-6	o-xylene	15	U
100-42-5	styrene	15	U
79-34-5	1,1,2,2-tetrachloroethane	15	U

LA 10/2/98

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-01

Lab Name: UPSTATE LABS INC. Contract: C&H ENGIN

Lab Code: 10170 Case No.: 02 SAS No.: SDG No.: CH08

Matrix: (soil/water) WATER Lab Sample ID: 21998023

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E1957.D

Level: (low/med) LOW Date Received: 08/06/98

% Moisture: not dec. Date Analyzed: 08/20/98

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L		Q
74-87-3	chloromethane	10	U	
75-01-4	vinyl chloride	10	U	
74-83-9	bromomethane	10	U	UJ
75-00-3	chloroethane	10	U	
67-64-1	acetone	12	U	UJ
75-35-4	1,1-dichloroethene	10	U	
75-15-0	carbon disulfide	10	U	UJ
75-09-2	methylene chloride	10	~~B~~ U	~~B~~ UJ
156-60-5	trans-1,2-dichloroethene	10	U	
75-34-33	1,1-dichloroethane	10	U	
156-59-2	cis-1,2-dichloroethene	10	U	
78-93-2	2-butanone	10	U	
67-66-3	chloroform	10	U	
107-06-2	1,2-dichloroethane	10	U	
71-55-6	1,1,1-trichloroethane	10	U	
56-23-5	carbon tetrachloride	10	U	
71-43-2	benzene	10	U	
79-01-6	trichloroethene	10	U	UJ
78-87-5	1,2-dichloropropane	10	U	
75-27-4	bromodichloromethane	10	U	
10061-1-5	cis-1,3-dichloropropene	10	U	
10061-2-6	trans-1,3-dichloropropene	10	U	
79-00-5	1,1,2-trichloroethane	10	U	
124-48-1	dibromochloromethane	10	U	
75-25-2	bromoform	10	U	
108-10-1	4-methyl-2-pentanone	3	J	J
108-88-3	toluene	10	U	
591-78-6	2-hexanone	10	U	
127-18-4	tetrachloroethene	10	U	
108-90-7	chlorobenzene	10	U	UJ
100-41-4	ethylbenzene	10	U	
	m,p-xylene	10	U	
95-47-6	o-xylene	10	U	
100-42-5	styrene	10	U	
79-34-5	1,1,2,2-tetrachloroethane	10	U	

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-02

Lab Name: UPSTATE LABS INC. Contract: C&H ENGIN

Lab Code: 10170 Case No.: 02 SAS No.: _____ SDG No.: CH08

Matrix: (soil/water) WATER Lab Sample ID: 21998024

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E1960.D

Level: (low/med) LOW Date Received: 08/06/98

% Moisture: not dec. _____ Date Analyzed: 08/20/98

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L		Q
74-87-3	chloromethane	10	U	
75-01-4	vinyl chloride	10	U	
74-83-9	bromomethane	10	U	
75-00-3	chloroethane	10	U	
67-64-1	acetone	10	7	J
75-35-4	1,1-dichloroethene	10	U	
75-15-0	carbon disulfide	10	U	
75-09-2	methylene chloride	10	8	JB
156-60-5	trans-1,2-dichloroethene	10	U	
75-34-33	1,1-dichloroethane	10	U	
156-59-2	cis-1,2-dichloroethene	10	U	
78-93-2	2-butanone	10	U	
67-66-3	chloroform	20		J
107-06-2	1,2-dichloroethane	10	U	
71-55-6	1,1,1-trichloroethane	10	U	
56-23-5	carbon tetrachloride	10	U	
71-43-2	benzene	10	U	
79-01-6	trichloroethene	10	U	
78-87-5	1,2-dichloropropane	10	U	
75-27-4	bromodichloromethane	10	U	
10061-1-5	cis-1,3-dichloropropene	10	U	
10061-2-6	trans-1,3-dichloropropene	10	U	
79-00-5	1,1,2-trichloroethane	10	U	
124-48-1	dibromochloromethane	10	U	
75-25-2	bromoform	10	U	
108-10-1	4-methyl-2-pentanone	10	U	
108-88-3	toluene	10	U	
591-78-6	2-hexanone	10	U	
127-18-4	tetrachloroethene	10	U	
108-90-7	chlorobenzene	10	U	
100-41-4	ethylbenzene	10	U	
	m,p-xylene	10	U	
95-47-6	o-xylene	10	U	
100-42-5	styrene	10	U	
79-34-5	1,1,2,2-tetrachloroethane	10	U	

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-03

Lab Name: UPSTATE LABS INC. Contract: C&H ENGIN

Lab Code: 10170 Case No.: 02 SAS No.: SDG No.: CH08

Matrix: (soil/water) WATER Lab Sample ID: 21998025

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E1961.D

Level: (low/med) LOW Date Received: 08/06/98

% Moisture: not dec. Date Analyzed: 08/20/98

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	chloromethane	10	U
75-01-4	vinyl chloride	10	U
74-83-9	bromomethane	10	U
75-00-3	chloroethane	10	U
67-64-1	acetone	10	U
75-35-4	1,1-dichloroethene	10	U
75-15-0	carbon disulfide	10	U
75-09-2	methylene chloride	10 8	JB U
156-60-5	trans-1,2-dichloroethene	10	U
75-34-33	1,1-dichloroethane	10	U
156-59-2	cis-1,2-dichloroethene	10	U
78-93-2	2-butanone	10	U
67-66-3	chloroform	10	U
107-06-2	1,2-dichloroethane	10	U
71-55-6	1,1,1-trichloroethane	10	U
56-23-5	carbon tetrachloride	10	U
71-43-2	benzene	10	U
79-01-6	trichloroethene	10	U
78-87-5	1,2-dichloropropane	10	U
75-27-4	bromodichloromethane	10	U
10061-1-5	cis-1,3-dichloropropene	10	U
10061-2-6	trans-1,3-dichloropropene	10	U
79-00-5	1,1,2-trichloroethane	10	U
124-48-1	dibromochloromethane	10	U
75-25-2	bromoform	10	U
108-10-1	4-methyl-2-pentanone	10	U
108-88-3	toluene	10	U
591-78-6	2-hexanone	10	U
127-18-4	tetrachloroethene	10	U
108-90-7	chlorobenzene	10	U
100-41-4	ethylbenzene	10	U
	m,p-xylene	10	U
95-47-6	o-xylene	10	U
100-42-5	styrene	10	U
79-34-5	1,1,2,2-tetrachloroethane	10	U

U]

U]

JBJ

0000903 LP 10/2/98

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-04

Lab Name: UPSTATE LABS INC. Contract: C&H ENGIN

Lab Code: 10170 Case No.: 02 SAS No.: SDG No.: CH08

Matrix: (soil/water) WATER Lab Sample ID: 21998026

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E1962.D

Level: (low/med) LOW Date Received: 08/06/98

% Moisture: not dec. Date Analyzed: 08/20/98

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	chloromethane	10	U
75-01-4	vinyl chloride	10	U
74-83-9	bromomethane	10	U
75-00-3	chloroethane	10	U
67-64-1	acetone	~~10~~ 8	~~U~~ J
75-35-4	1,1-dichloroethene	10	U
75-15-0	carbon disulfide	10	U
75-09-2	methylene chloride	~~10~~ 8	~~U~~ J
156-60-5	trans-1,2-dichloroethene	10	U
75-34-33	1,1-dichloroethane	10	U
156-59-2	cis-1,2-dichloroethene	10	U
78-93-2	2-butanone	10	U
67-66-3	chloroform	2	J
107-06-2	1,2-dichloroethane	10	U
71-55-6	1,1,1-trichloroethane	10	U
56-23-5	carbon tetrachloride	10	U
71-43-2	benzene	10	U
79-01-6	trichloroethene	10	U
78-87-5	1,2-dichloropropane	10	U
75-27-4	bromodichloromethane	10	U
10061-1-5	cis-1,3-dichloropropene	10	U
10061-2-6	trans-1,3-dichloropropene	10	U
79-00-5	1,1,2-trichloroethane	10	U
124-48-1	dibromochloromethane	10	U
75-25-2	bromoform	10	U
108-10-1	4-methyl-2-pentanone	10	U
108-88-3	toluene	10	U
591-78-6	2-hexanone	10	U
127-18-4	tetrachloroethene	10	U
108-90-7	chlorobenzene	10	U
100-41-4	ethylbenzene	10	U
	m,p-xylene	10	U
95-47-6	o-xylene	10	U
100-42-5	styrene	10	U
79-34-5	1,1,2,2-tetrachloroethane	10	U

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00009:0 wp 10/2/98

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-05

Lab Name: UPSTATE LABS INC. Contract: C&H ENGIN

Lab Code: 10170 Case No.: 02 SAS No.: SDG No.: CH08

Matrix: (soil/water) WATER Lab Sample ID: 21998027

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: E1963.D

Level: (low/med) LOW Date Received: 08/06/98

% Moisture: not dec. Date Analyzed: 08/20/98

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
74-87-3	chloromethane	10	U
75-01-4	vinyl chloride	10	U
74-83-9	bromomethane	10	U
75-00-3	chloroethane	10	U
67-64-1	acetone	11	UJ
75-35-4	1,1-dichloroethene	10	U
75-15-0	carbon disulfide	10	U
75-09-2	methylene chloride	10	~~JB~~ UJ
156-60-5	trans-1,2-dichloroethene	10	U
75-34-33	1,1-dichloroethane	10	U
156-59-2	cis-1,2-dichloroethene	10	U
78-93-2	2-butanone	10	U
67-66-3	chloroform	2	J
107-06-2	1,2-dichloroethane	10	U
71-55-6	1,1,1-trichloroethane	10	U
56-23-5	carbon tetrachloride	10	U
71-43-2	benzene	10	U
79-01-6	trichloroethene	10	U
78-87-5	1,2-dichloropropane	10	U
75-27-4	bromodichloromethane	10	U
10061-1-5	cis-1,3-dichloropropene	10	U
10061-2-6	trans-1,3-dichloropropene	10	U
79-00-5	1,1,2-trichloroethane	10	U
124-48-1	dibromochloromethane	10	U
75-25-2	bromoform	10	U
108-10-1	4-methyl-2-pentanone	10	U
108-88-3	toluene	10	U
591-78-6	2-hexanone	10	U
127-18-4	tetrachloroethene	10	U
108-90-7	chlorobenzene	10	U
100-41-4	ethylbenzene	10	U
	m,p-xylene	10	U
95-47-6	o-xylene	10	U
100-42-5	styrene	10	U
79-34-5	1,1,2,2-tetrachloroethane	10	U

WP 10/2/98

DATA USABILITY SUMMARY REPORT

for

BEARDSLEY DESIGN ASSOCIATES

431 EAST FAYETTE STREET

EAST SYRACUSE, NY 13202

FORMER BROWN MANUFACTURING SITE
SDG CH08
Sampled 7/20-22/98, 7/30/98, 8/6/98

SOILS and AQUEOUS SAMPLES for SEMIVOLATILE ORGANICS

HB-9	(20598180)	GP-2	(20598181)	GP-8	(20598182)
GP-5	(20598183)	GP-13	(20598184)	GP-16	(20598185)
GP-17	(20598186)	GP-25	(20598187)	T-1	(21598005)
T-2	(21598006)	T-4	(21598007)	T-5	(21598008)
T-6	(21598009)	MW-1	(21998023)	MW-2	(21998024)
MW-3	(21998025)	MW-4	(21998026)	MW-5	(21998027)

DATA ASSESSMENT

A semivolatile organics data package containing analytical results for thirteen soils and five aqueous samples was received from Beardsley Design Associates on 16Nov01. The ASP deliverables package included formal reports, raw data, the necessary QC, and supporting information. The samples, taken from the Former Brown Manufacturing site, were identified by Chain of Custody documents and trackable through the work of Upstate Laboratories, Inc., the laboratory contracted for analysis. Analyses, performed according to SW-846 Method 8270, addressed Target Compound List analytes. Laboratory data was evaluated according to the Quality Assurance / Quality Control Requirements of the New York State Department of Environmental Conservation's Analytical Services Protocol (ASP), September 1989, Rev. 6/2000. When ASP protocol was not followed, the current EPA Region II Functional Guidelines (SPO NO. HW-6, Rev. #8, Jan. 1992, CLP Organics Data Review and Preliminary Review), was used as a technical reference.

Traces of di-n-butylphthalate, bis(2-ethylhexyl)phthalate and butylbenzylphthalate were detected throughout this group of samples. When present, these phthalates are assumed to represent laboratory artifacts. As such, di-n-butylphthalate, bis(2-ethylhexyl)phthalate and butylbenzylphthalate should be interpreted as undetected in each program sample.

Aldol Condensation products were reported as Tentatively Identified Compounds (TIC) throughout this group of samples. When present, they have been removed from Form 1F. A large number of additional unidentified TICs were present in each method blank. Because of their number, it must be assumed that some of the TICs reported from samples also represent laboratory artifacts.

2-Methylnaphthalene, n-nitroso-di-n-propylamine, bis(2-chloroethyl)ether, indeno[1,2,3-cd]pyrene, dibenz[a,h]anthracene and benzo[g,h,i]perylene demonstrated an unstable instrument response during the analysis of calibration verification standards. The affected analytes have been qualified as estimations in associated samples.

Internal standards #3, #4, #5 and/or #6 produced a low instrument response in samples GP-2, GP-5, GP-13, GP-25, T-1, T-2, T-4 and T-5. Analytes dependant upon the response of these internal standards have been qualified as estimations in the affected samples.

Extremely low recoveries were reported for the matrix spikes added to two portions of T-1. Based on this performance, data reported from each soil sample has been qualified as an estimation.

CORRECTNESS AND USABILITY

The identifications of naphthalene in GP-5, GP-16, GP-25, T-2 and T-4 were not conclusive, based on the mass spectra references

provided by the laboratory. Similarly, the identifications of pyrene in GP-5 and GP-17, and the identification of benzo[a]anthracene in GP-25 were inconclusive. Where affected, these analytes should be considered undetected.

The Tentatively Identified Compounds (TIC) reported from every sample except the GP-8 and T-01 included identifications that were not conclusively supported by the library searches supplied by the laboratory. The affected identifications have been edited on Form 1F.

Cooler temperatures between 11.9°C and 14.9°C were reported when this group of samples arrived at the laboratory. Because the samples were not properly chilled to 4°C at the time of collection, the possibility of volatile and degradative losses cannot be ignored. The results reported from this group of samples have been qualified as estimations.

Reported data should be considered technically defensible in its present form. Reported concentrations that are felt to provide a usable estimation of the conditions being measured have been flagged "J" or "UJ". Data that is felt to be unreliable has been identified with a single red line and flagged "R". Rejected data should not be included in data tables. Estimated data should be used with caution. A detailed discussion of the review process follows.

Two facts should be considered by all data users. No compound concentration, even if it has passed all QC testing, can be guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error. Secondly. DATAVAL, Inc. guarantees the quality of this data assessment. However, DATAVAL, Inc. does not warrant any interpretation or utilization of this data by a third party.

Reviewer's signature: James B. Baldwin Date: 1/21/02

SAMPLE HISTORY

Analyte concentrations can deteriorate with time due to chemical instability, bacterial degradation or volatility. Samples that are not properly preserved, or are not analyzed within established holding times, may no longer be considered representative. Holding times are calculated from the time of sample collection. Samples must remain chilled to 4°C from the time of collection. Aqueous samples must be extracted within 7 days. The extraction of soil samples must begin within 14 days of collection. Analyses must be completed within 40 days of extraction. Each sample delivery group, containing up to 20 samples, should include a field duplicate, a matrix spike, matrix spike duplicate, and a rinsate blank.

This sample delivery group, which included thirteen soils and five aqueous samples, was collected from the Former Brown Manufacturing site between 20Jul98 and 06Aug98. The samples were delivered to the laboratory in five groups (samples collected on 20Jul98, samples collected on 21Jul98, samples collected on 22Jul98, samples collected on 30Jul98 and 31Jul98, and samples collected on 06Aug98). Each group of samples arrived at the laboratory within 2 days of collection. A custody seal was present on every sample cooler, with the exception of the cooler used to transport the groundwater samples collected on 06Aug98. The groundwaters were sampled and immediately delivered to the laboratory. This delivery group also included an equipment blank that was created on 20Jul98.

Although the laboratory record indicates that most of the sample coolers contained ice, the loading was inadequate to properly chill the samples. Sample temperatures between 11.9°C and 14.9°C were recorded by the laboratory at the time of receipt. Due to the possibility of analyte losses caused by improper handling, the results reported from this group of samples have been qualified as estimations.

Each soil sample was extracted within eight days of collection. Aqueous samples were extracted within seven days. The analysis of each sample, including repeated analyses, was completed within 20 days of extraction. Program holding time limitations were satisfied.

BLANKS

Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Method blanks are analyzed to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank. Any sample concentration less than 5 times the level determined in a blank must be qualified. The qualification criteria is extended to ten times the concentration observed in blanks for common laboratory artifacts. These include phthalate esters.

Four method blanks were analyzed with this group of samples. Traces of phthalates were detected in each blank. Di-n-butyl-

phthalate, bis(2-ethylhexyl)phthalate and butylbenzylphthalate were detected in at least one blank. When present in samples, these phthalates are assumed to represent laboratory artifacts. Each should be considered undetected in program samples. Detection limits equaling CRDL or the reported concentration, whichever is greater, should be assumed.

Aldol Condensation products (4-methyl-3-penten-2-one, 4-hydroxy-4-methyl-2-pentanone) and a large number of unidentified TIC's were also reported from each blank. When present in samples, aldol products have been removed from Form 1F. Because of the large number of TICs present in blanks, it must be assumed that some of the TICs reported from samples represent laboratory artifacts.

MS TUNING

Mass spectrometer tuning and performance criteria are established to ensure sufficient mass resolution and sensitivity to accurately detect and identify targeted analytes. Verification is accomplished using a certified standard.

An Instrument Performance Check Standard of DFTPP was analyzed prior to each analytical sequence and during every 12 hour period of instrument operation. An Instrument Performance Check Form is present for each DFTPP evaluation. The DFTPP tunes associated with this group of samples satisfied the program acceptance criteria.

CALIBRATION

Requirements for instrument calibration are established to ensure that laboratory equipment is capable of producing accurate, quantitative data. Initial calibrations demonstrate a range through which measurements may be made. Continuing calibration standards verify instrument stability.

The required levels of initial calibration were performed on 03Aug98. Standards of 20, 50, 80, 120 and 160 ng were included. The calibration curve for each analyte demonstrated the required levels of instrument response and an acceptable degree of linearity.

A continuing calibration verification was completed prior to each twelve hour period of instrument operation. In most cases, these checks demonstrated an acceptable level of instrument stability. When compared to the initial instrument calibration, the calibration verification conducted on 10Aug98 demonstrated an unacceptable shift in the response of 2-methylnaphthalene. Based on this observation, the 2-methylnaphthalene results reported from T-05, T-06, T-04, T-02 and T-01 have been qualified as estimations.

The calibration check on 17Aug98 demonstrated unacceptable shifts of the signals of N-nitroso-di-n-propylamine, 4-chloro-3-methylphenol, 2,4,6-trichlorophenol and 2,4,5-trichlorophenol. This performance, however, warrants no concern. The samples associated with this standard were sample reruns that should not be included in data tables.

N-nitroso-di-n-propylamine demonstrated unstable performance during the calibration check on 19Aug98. This performance requires the qualification of the N-nitroso-di-n-propylamine result reported from MW-05.

Similarly, the bis(2-chloroethyl)ether, N-nitroso-di-n-propylamine, indeno[1,2,3-cd]pyrene, dibenz[a,h]anthracene and benzo[g,h,i]-perylene results reported from MW-01, MW-02, MW-03 and MW-04 have been qualified as estimations based on calibration performance.

SURROGATES

Each sample, blank and standard is spiked with surrogate compounds prior to analysis. The structures of surrogates are similar to analytes of interest, but they are not normally found in environmental samples. Surrogate recoveries are monitored to evaluate overall laboratory performance and the efficiency of laboratory technique.

Surrogate Summary Sheets were properly prepared; the correct acceptance criteria applied. The surrogate additions to each program sample were recovered successfully. No more than one surrogate of either fraction, acid or base/neutral, produced an unacceptable result.

INTERNAL STANDARDS

Internal standards are added to each sample, blank and standard just prior to injection. Analyte concentrations are calculated relative to the response of a specific internal standard. Internal standard performance criteria ensure that GC/MS sensitivity and response are stable during the analysis of each sample. The area of internal standard peaks may not vary by more than a factor of two. When compared to the preceding calibration check, retention times may not vary by more than 30 seconds.

The laboratory correctly calculated control limits for internal standard response and retention times. The response produced by the internal standard additions to GP-2, GP-5, GP-13, GP-25, T-01, T-02, T-04, T-05 and T-06 failed to satisfy the calculated limits of acceptance. GP-5, GP-25, T-02, T-04 and T-05 were reanalyzed, each producing a similar result. GP-2 and GP-13 were reanalyzed at a higher dilution. Based on this performance, only data reported from the initial analysis of these samples should be included in data tables. Results reported for analytes dependant

upon the response of each affected internal standard, should be considered an estimation. The affected internal standards are tabulated below. However, because data from this group of samples has been previously qualified, an action at this time is not required.

SAMPLE	AFFECTED INTERNAL STANDARDS
GP-2	IS#4, #5, #6
GP-5	IS#5, #6
GP-13	IS#3
GP-25	IS#5, #6
T-01	IS#4, #5, #6
T-02	IS#4, #5, #6
T-04	IS#4, #5, #6
T-05	IS#5

MATRIX SPIKES / MATRIX SPIKE DUPLICATES / MATRIX SPIKED BLANKS
Matrix spiking refers to the addition of known analyte concentrations to a sample, prior to analysis. Analyte recoveries provide an indication of laboratory accuracy. The analysis of a duplicate spiked aliquot provides a measurement of precision.

Samples MW-01 and T-01 were selected for matrix spiking. The additions to two portions of the groundwater sample demonstrated acceptable levels of measurement accuracy and precision. Although slightly elevated recoveries were reported for 4-nitrophenol (105%, 121%) and pentachlorophenol (105%), the observed performance does not warrant data qualifications. Poor precision was indicated by duplicate measurements of pyrene. However, because both individual pyrene measurements were within the limits of acceptance, data qualifications are not required.

An extremely low recovery was reported for each analyte addition to two portions of T-01. With the exception of pyrene, each of these additions produced a recovery below 23%. The additions of 2,4-dinitrotoluee, 4-chloro-3-methylphenol and pentachlorophenol were completely unrecovered. Based on spiking performance, data reported from each soil sample must be considered an estimation. However, because data from these samples has been previously qualified, an action against data has not been taken.

Two aqueous spiked blanks produced acceptable recoveries.

DUPLICATES
Two aliquots of the same sample are processed separately through all aspects of sample preparation and analysis. Results produced by the analysis of this pair of samples are compared as a measurement of precision. Poor precision, may be indicative of sample non-homogeneity, method defects, or poor laboratory technique.

Field split duplicates were not included in this group of samples.

SAMPLE INFORMATION
Formal reports were provided for each sample. The data package also included total ion chromatograms and raw instrument printouts. Sample chromatograms were properly attenuated. Mass spectra references were provided to confirm the identification of each reported analyte. When the laboratory generated references failed to provide a conclusive identification, Form 1 was edited to

indicate a negative result. Questionable identifications are tabulated below.

SAMPLE	QUESTIONABLE IDENTIFICATIONS
GP-5	naphthalene, pyrene
GP-16	naphthalene
GP-17	pyrene
GP-25	naphthalene, benzo[a]anthracene
T-2	naphthalene
T-4	naphthalene

In several cases, TIC identifications were not conclusively supported by the library searches included in the raw data. In such cases, Form 1F has been edited to indicate an appropriate identification. The Form 1F of every sample except GP-8 and T-01 has been corrected.

HB-9 and GP-13 were reanalyzed at appropriate dilutions to obtain measurements of phenanthrene, fluoranthene and pyrene within the range of calibration. GP-2 was reanalyzed to obtain reportable concentrations of phenanthrene, fluoranthene, pyrene, benzo[a]anthracene, chrysene, benzo[b]fluoranthene and benzo[a]pyrene. GP-16 was reanalyzed to obtain a reportable pyrene result.

SUMMARY OF QUALIFIED DATA

FORMER BROWN MANUFACTURING SITE — SAMPLED 7/20/98 thru 8/6/98

		HANDLING	CALIBRATE 2-METHYLNAPTHALENE	CALIBRATE CAL#1	CALIBRATE CAL#2	BLANKS PHTHALATES	BLANKS TICS	SPECTRA ID TARGETS
HB-9	(20598180)	ALL J/UJ					REMOVE	
GP-2	(20598181)	ALL J/UJ						
GP-8	(20598182)	ALL J/UJ					REMOVE	
GP-5	(20598183)	ALL J/UJ					REMOVE	ID1,2 UJ
GP-13	(20598184)	ALL J/UJ				360UJ	REMOVE	
GP-16	(20598185)	ALL J/UJ					REMOVE	ID1 UJ
GP-17	(20598186)	ALL J/UJ				59UJ		ID2 UJ
GP-25	(20598187)	ALL J/UJ					REMOVE	ID1,3 UJ
T-1	(21598005)	ALL J/UJ	2800J					
T-2	(21598006)	ALL J/UJ	4900J					ID1 UJ
T-4	(21598007)	ALL J/UJ	1400J			550UJ		ID1 UJ
T-5	(21598008)	ALL J/UJ	110J			620UJ		
T-6	(21598009)	ALL J/UJ	UJ			1200UJ/97UJ	REMOVE	
MW-1	(21998023)				UJ	37UJ/30UJ/47UJ	REMOVE	
MW-2	(21998024)				UJ	26UJ/13UJ/30UJ	REMOVE	
MW-3	(21998025)				UJ	49UJ/26UJ/44UJ	REMOVE	
MW-4	(21998026)				UJ	61UJ/8UJ/16UJ	REMOVE	
MW-5	(21998027)			UJ		9UJ	REMOVE	

CAL#1 = N-nitroso-di-n-propylamine
CAL#2 = bis(2-chloroethyl)ether, N-nitroso-di-n-propylamine, indeno[1,2,3-cd]pyrene dibenz[a,h]anthracene, benzo[g,h,i]perylene
ID1 = naphthalene
ID2 = pyrene
ID3 = benzo[a]anthracene

SUMMARY OF QUALIFIED DATA

FORMER BROWN MANUFACTURING SITE — SAMPLED 7/20/98 thru 8/6/98

		INT.STAND	MATRIX SPIKES	SPECTRA ID TIC
HB-9	(20598180)		ALL J/UJ	EDIT
GP-2	(20598181)	IS4,5,6 J/UJ	ALL J/UJ	EDIT
GP-8	(20598182)		ALL J/UJ	
GP-5	(20598183)	IS5,6 J/UJ	ALL J/UJ	EDIT
GP-13	(20598184)	IS3 J/UJ	ALL J/UJ	EDIT
GP-16	(20598185)		ALL J/UJ	EDIT
GP-17	(20598186)		ALL J/UJ	EDIT
GP-25	(20598187)	IS5,6 J/UJ	ALL J/UJ	EDIT
T-1	(21598005)	IS4,5,6 J/UJ	ALL J/UJ	
T-2	(21598006)	IS4,5,6 J/UJ	ALL J/UJ	EDIT
T-4	(21598007)	IS4,5,6 J/UJ	ALL J/UJ	EDIT
T-5	(21598008)	IS5,6 J/UJ	ALL J/UJ	EDIT
T-6	(21598009)		ALL J/UJ	EDIT
MW-1	(21998023)			EDIT
MW-2	(21998024)			EDIT
MW-3	(21998025)			EDIT
MW-4	(21998026)			EDIT
MW-5	(21998027)			EDIT

IS3 = all analytes dependant upon the response of internal standard #3
IS4 = all analytes dependant upon the response of internal standard #4
IS5 = all analytes dependant upon the response of internal standard #5
IS6 = all analytes dependant upon the response of internal standard #6

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HB-9X

Lab Name: Upstate Labs., Inc. Contract: C&H Engine

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH07

Matrix: (soil/water) SOIL Lab Sample ID: SA1642 20598(8D

Sample wt/vol: 30 (g/ml) G Lab File ID: A5364.D

Level: (low/med) LOW Date Received: 07/22/98

% Moisture: 30 decanted:(Y/N) N Date Extracted: 07/28/98

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 08/11/98

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
111-44-4	bis(2-Chloroethyl)ether	2400	U
108-95-2	Phenol	2400	U
95-57-8	2-Chlorophenol	2400	U
541-73-1	1,3-Dichlorobenzene	2400	U
106-46-7	1,4-Dichlorobenzene	2400	U
95-50-1	1,2-Dichlorobenzene	2400	U
108-60-1	2,2'-oxybis(1-Chloropropane)	2400	U
95-48-7	2-Methylphenol	2400	U
67-72-1	Hexachloroethane	2400	U
621-64-7	N-Nitroso-di-n-propylamine	2400	U
106-44-5	4-Methylphenol	2400	U
98-95-3	Nitrobenzene	2400	U
78-59-1	Isophorone	2400	U
88-75-5	2-Nitrophenol	2400	U
105-67-9	2,4-Dimethylphenol	2400	U
111-91-1	bis(2-Chloroethoxy)methane	2400	U
120-83-2	2,4-Dichlorophenol	2400	U
120-82-1	1,2,4-Trichlorobenzene	2400	U
91-20-3	Naphthalene	1500	J
106-47-8	4-Chloroaniline	2400	U
87-68-3	Hexachlorobutadiene	2400	U
59-50-7	4-Chloro-3-methylphenol	2400	U
91-57-6	2-Methylnaphthalene	1000	J
77-47-4	Hexachlorocyclopentadiene	2400	U
88-06-2	2,4,6-Trichlorophenol	2400	U
95-95-4	2,4,5-Trichlorophenol	12000	U
91-58-7	2-Chloronaphthalene	2400	U
88-74-4	2-Nitroaniline	12000	U
208-96-8	Acenaphthylene	720	J
131-11-3	Dimethyl phthalate	2400	U
606-20-2	2,6-Dinitrotoluene	2400	U
83-32-9	Acenaphthene	2200	J
99-09-2	3-Nitroaniline	12000	U
51-28-5	2,4-Dinitrophenol	12000	U
132-64-9	Dibenzofuran	2100	J
121-14-2	2,4-Dinitrotoluene	2400	U
100-02-7	4-Nitrophenol	12000	U

0001221

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HB-9X

Lab Name: Upstate Labs., Inc. Contract: C&H Engine

Lab Code: 10170 Case No.: _____ SAS No.: _____ SDG No.: CH07

Matrix: (soil/water) SOIL Lab Sample ID: SA1642 20598160

Sample wt/vol: 30 (g/ml) G Lab File ID: A5364.D

Level: (low/med) LOW Date Received: 07/22/98

% Moisture: 30 decanted:(Y/N) N Date Extracted: 07/28/98

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 08/11/98

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
86-73-7	Fluorene	2900	J
7005-72-3	4-Chlorophenyl phenyl ether	2400	U
84-66-2	Diethyl phthalate	2400	U
100-01-6	4-Nitroaniline	12000	U
534-52-1	4,6-Dinitro-2-methylphenol	12000	U
86-30-6	n-Nitrosodiphenylamine	2400	U UJ
101-55-3	4-Bromophenyl phenyl ether	2400	U
118-74-1	Hexachlorobenzene	2400	U
87-86-5	Pentachlorophenol	12000	U
85-01-8	Phenanthrene	26000 ~~21000~~	~~E~~ D J
120-12-7	Anthracene	5800	J
84-74-2	Di-n-butyl phthalate	2400	U UJ
86-74-8	Carbazole	2600	J
206-44-0	Fluoranthene	26000 20000	E D J
129-00-0	Pyrene	35000 31000	E D J
85-68-7	Butyl benzyl phthalate	2400	U UJ
91-94-1	3,3'-Dichlorobenzidine	2400	U UJ
56-55-3	Benzo[a]anthracene	19000	J UJ ★
218-01-9	Chrysene	12000	J
117-81-7	bis(2-Ethylhexyl)phthalate	2400	U
117-84-0	Di-n-octyl phthalate	2400	U UJ
205-99-2	Benzo[b]fluoranthene	9900	J
207-08-9	Benzo[k]fluoranthene	4900	J
50-32-8	Benzo[a]pyrene	6500	J UJ ★
193-39-5	Indeno[1,2,3-cd]pyrene	2500	J
53-70-3	Dibenz[a,h]anthracene	1200	J
191-24-2	Benzo[g,h,i]perylene	2400	J

0001222

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GP-2T

Lab Name: Upstate Labs., Inc. Contract: C&H Engine

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH07

Matrix: (soil/water) SOIL Lab Sample ID: 20598181

Sample wt/vol: 30 (g/ml) G Lab File ID: A5365.D

Level: (low/med) LOW Date Received: 07/23/98

% Moisture: 11 decanted:(Y/N) N Date Extracted: 07/28/98

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 08/11/98

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
111-44-4	bis(2-Chloroethyl)ether	1900	U
108-95-2	Phenol	1900	U
95-57-8	2-Chlorophenol	1900	U
541-73-1	1,3-Dichlorobenzene	1900	U
106-46-7	1,4-Dichlorobenzene	1900	U
95-50-1	1,2-Dichlorobenzene	1900	U
108-60-1	2,2'-oxybis(1-Chloropropane)	1900	U
95-48-7	2-Methylphenol	1900	U
67-72-1	Hexachloroethane	1900	U
621-64-7	N-Nitroso-di-n-propylamine	1900	U
106-44-5	4-Methylphenol	1900	U
98-95-3	Nitrobenzene	1900	U
78-59-1	Isophorone	1900	U
88-75-5	2-Nitrophenol	1900	U
105-67-9	2,4-Dimethylphenol	1900	U
111-91-1	bis(2-Chloroethoxy)methane	1900	U
120-83-2	2,4-Dichlorophenol	1900	U
120-82-1	1,2,4-Trichlorobenzene	1900	U
91-20-3	Naphthalene	11000	J
106-47-8	4-Chloroaniline	1900	U
87-68-3	Hexachlorobutadiene	1900	U
59-50-7	4-Chloro-3-methylphenol	1900	U
91-57-6	2-Methylnaphthalene	5100	J
77-47-4	Hexachlorocyclopentadiene	1900	U
88-06-2	2,4,6-Trichlorophenol	1900	U
95-95-4	2,4,5-Trichlorophenol	9400	U
91-58-7	2-Chloronaphthalene	1900	U
88-74-4	2-Nitroaniline	9400	U
208-96-8	Acenaphthylene	2600	J
131-11-3	Dimethyl phthalate	1900	U
606-20-2	2,6-Dinitrotoluene	1900	U
83-32-9	Acenaphthene	5800	J
99-09-2	3-Nitroaniline	9400	U
51-28-5	2,4-Dinitrophenol	9400	U
132-64-9	Dibenzofuran	6900	J
121-14-2	2,4-Dinitrotoluene	1900	U
100-02-7	4-Nitrophenol	9400	U

0001296

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GP-2T

Lab Name: Upstate Labs., Inc. Contract: C&H Engine

Lab Code: 10170 Case No.: _____ SAS No.: _____ SDG No.: CH07

Matrix: (soil/water) SOIL Lab Sample ID: 20598181

Sample wt/vol: 30 (g/ml) G Lab File ID: A5365.D

Level: (low/med) LOW Date Received: 07/23/98

% Moisture: 11 decanted:(Y/N) N Date Extracted: 07/28/98

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 08/11/98

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
86-73-7	Fluorene		9200	J
7005-72-3	4-Chlorophenyl phenyl ether		1900	U
84-66-2	Diethyl phthalate		1900	U
100-01-6	4-Nitroaniline		9400	U
534-52-1	4,6-Dinitro-2-methylphenol		9400	U
86-30-6	n-Nitrosodiphenylamine		1900	U
101-55-3	4-Bromophenyl phenyl ether		1900	U
118-74-1	Hexachlorobenzene		1900	U
87-86-5	Pentachlorophenol		9400	U
85-01-8	Phenanthrene	92000	68000	E D J
120-12-7	Anthracene		13000	J
84-74-2	Di-n-butyl phthalate		1900	U J
86-74-8	Carbazole		5100	J
206-44-0	Fluoranthene	72000	41000	E D J
129-00-0	Pyrene	92000	64000	E D J
85-68-7	Butyl benzyl phthalate		1900	U J
91-94-1	3,3'-Dichlorobenzidine		1900	U
56-55-3	Benzo[a]anthracene	34000	23000	E D J
218-01-9	Chrysene	28000	18000	E D J
117-81-7	bis(2-Ethylhexyl)phthalate		1900	U J
117-84-0	Di-n-octyl phthalate		1900	U J
205-99-2	Benzo[b]fluoranthene	43000	33000	E D J
207-08-9	Benzo[k]fluoranthene		7600	J
50-32-8	Benzo[a]pyrene	24000	18000	E D J
193-39-5	Indeno[1,2,3-cd]pyrene		12000	J
53-70-3	Dibenz[a,h]anthracene		1900	U J
191-24-2	Benzo[g,h,i]perylene		15000	J

0001297

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GP-5T

Lab Name: Upstate Labs., Inc. Contract: C&H Engine

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH07

Matrix: (soil/water) SOIL Lab Sample ID: 20598183

Sample wt/vol: 30 (g/ml) G Lab File ID: A5367.D

Level: (low/med) LOW Date Received: 07/23/98

% Moisture: 14 decanted:(Y/N) N Date Extracted: 07/28/98

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 08/12/98

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
111-44-4	bis(2-Chloroethyl)ether	3900	U
108-95-2	Phenol	3900	U
95-57-8	2-Chlorophenol	3900	U
541-73-1	1,3-Dichlorobenzene	3900	U
106-46-7	1,4-Dichlorobenzene	3900	U
95-50-1	1,2-Dichlorobenzene	3900	U
108-60-1	2,2'-oxybis(1-Chloropropane)	3900	U
95-48-7	2-Methylphenol	3900	U
67-72-1	Hexachloroethane	3900	U
621-64-7	N-Nitroso-di-n-propylamine	3900	U
106-44-5	4-Methylphenol	3900	U
98-95-3	Nitrobenzene	3900	U
78-59-1	Isophorone	3900	U
88-75-5	2-Nitrophenol	3900	U
105-67-9	2,4-Dimethylphenol	3900	U
111-91-1	bis(2-Chloroethoxy)methane	3900	U
120-83-2	2,4-Dichlorophenol	3900	U
120-82-1	1,2,4-Trichlorobenzene	3900	U
91-20-3	Naphthalene	3900 ~~2000~~	J U
106-47-8	4-Chloroaniline	3900	U
87-68-3	Hexachlorobutadiene	3900	U
59-50-7	4-Chloro-3-methylphenol	3900	U
91-57-6	2-Methylnaphthalene	470	J
77-47-4	Hexachlorocyclopentadiene	3900	U
88-06-2	2,4,6-Trichlorophenol	3900	U
95-95-4	2,4,5-Trichlorophenol	19000	U
91-58-7	2-Chloronaphthalene	3900	U
88-74-4	2-Nitroaniline	19000	U
208-96-8	Acenaphthylene	3900	U
131-11-3	Dimethyl phthalate	3900	U
606-20-2	2,6-Dinitrotoluene	3900	U
83-32-9	Acenaphthene	3900	U
99-09-2	3-Nitroaniline	19000	U
51-28-5	2,4-Dinitrophenol	19000	U
132-64-9	Dibenzofuran	3900	U
121-14-2	2,4-Dinitrotoluene	3900	U
100-02-7	4-Nitrophenol	19000	U

0001392

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GP-5T

Lab Name: Upstate Labs., Inc. Contract: C&H Engine

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH07

Matrix: (soil/water) SOIL Lab Sample ID: 20598183

Sample wt/vol: 30 (g/ml) G Lab File ID: A5367.D

Level: (low/med) LOW Date Received: 07/23/98

% Moisture: 14 decanted:(Y/N) N Date Extracted: 07/28/98

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 08/12/98

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
86-73-7	Fluorene	3900	U
7005-72-3	4-Chlorophenyl phenyl ether	3900	U
84-66-2	Diethyl phthalate	3900	U
100-01-6	4-Nitroaniline	19000	U
534-52-1	4,6-Dinitro-2-methylphenol	19000	U
86-30-6	n-Nitrosodiphenylamine	3900	U
101-55-3	4-Bromophenyl phenyl ether	3900	U
118-74-1	Hexachlorobenzene	3900	U
87-86-5	Pentachlorophenol	19000	U
85-01-8	Phenanthrene	1700	J
120-12-7	Anthracene	3900	U
84-74-2	Di-n-butyl phthalate	3900	U
86-74-8	Carbazole	3900	U
206-44-0	Fluoranthene	3900	U
129-00-0	Pyrene	3900 ~~7600~~	UJ
85-68-7	Butyl benzyl phthalate	3900	U
91-94-1	3,3'-Dichlorobenzidine	3900	U
56-55-3	Benzo[a]anthracene	3900	U
218-01-9	Chrysene	3900	U
117-81-7	bis(2-Ethylhexyl)phthalate	3900	U
117-84-0	Di-n-octyl phthalate	3900	U
205-99-2	Benzo[b]fluoranthene	3900	U
207-08-9	Benzo[k]fluoranthene	3900	U
50-32-8	Benzo[a]pyrene	3900	U
193-39-5	Indeno[1,2,3-cd]pyrene	3900	U
53-70-3	Dibenz[a,h]anthracene	3900	U
191-24-2	Benzo[g,h,i]perylene	3900	U

UJ

UJ

UJ

0001393

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GP-8T

Lab Name: Upstate Labs., Inc. Contract: C&H Engine

Lab Code: 10170 Case No.: _____ SAS No.: _____ SDG No.: CH07

Matrix: (soil/water) SOIL Lab Sample ID: 20598182

Sample wt/vol: 30 (g/ml) G Lab File ID: A5366.D

Level: (low/med) LOW Date Received: 07/23/98

% Moisture: 14 decanted:(Y/N) N Date Extracted: 07/28/98

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 08/11/98

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
111-44-4	bis(2-Chloroethyl)ether	1900	U
108-95-2	Phenol	1900	U
95-57-8	2-Chlorophenol	1900	U
541-73-1	1,3-Dichlorobenzene	1900	U
106-46-7	1,4-Dichlorobenzene	1900	U
95-50-1	1,2-Dichlorobenzene	1900	U
108-60-1	2,2'-oxybis(1-Chloropropane)	1900	U
95-48-7	2-Methylphenol	1900	U
67-72-1	Hexachloroethane	1900	U
621-64-7	N-Nitroso-di-n-propylamine	1900	U
106-44-5	4-Methylphenol	1900	U
98-95-3	Nitrobenzene	1900	U
78-59-1	Isophorone	1900	U
88-75-5	2-Nitrophenol	1900	U
105-67-9	2,4-Dimethylphenol	1900	U
111-91-1	bis(2-Chloroethoxy)methane	1900	U
120-83-2	2,4-Dichlorophenol	1900	U
120-82-1	1,2,4-Trichlorobenzene	1900	U
91-20-3	Naphthalene	850	J
106-47-8	4-Chloroaniline	1900	U
87-68-3	Hexachlorobutadiene	1900	U
59-50-7	4-Chloro-3-methylphenol	1900	U
91-57-6	2-Methylnaphthalene	460	J
77-47-4	Hexachlorocyclopentadiene	1900	U
88-06-2	2,4,6-Trichlorophenol	1900	U
95-95-4	2,4,5-Trichlorophenol	9700	U
91-58-7	2-Chloronaphthalene	1900	U
88-74-4	2-Nitroaniline	9700	U
208-96-8	Acenaphthylene	330	J
131-11-3	Dimethyl phthalate	1900	U
606-20-2	2,6-Dinitrotoluene	1900	U
83-32-9	Acenaphthene	930	J
99-09-2	3-Nitroaniline	9700	U
51-28-5	2,4-Dinitrophenol	9700	U
132-64-9	Dibenzofuran	740	J
121-14-2	2,4-Dinitrotoluene	1900	U
100-02-7	4-Nitrophenol	9700	U

0001369

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GP-8T

Lab Name: Upstate Labs., Inc. Contract: C&H Engine

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH07

Matrix: (soil/water) SOIL Lab Sample ID: 20598182

Sample wt/vol: 30 (g/ml) G Lab File ID: A5366.D

Level: (low/med) LOW Date Received: 07/23/98

% Moisture: 14 decanted:(Y/N) N Date Extracted: 07/28/98

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 08/11/98

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
86-73-7	Fluorene	1200	J
7005-72-3	4-Chlorophenyl phenyl ether	1900	U
84-66-2	Diethyl phthalate	1900	U
100-01-6	4-Nitroaniline	9700	U
534-52-1	4,6-Dinitro-2-methylphenol	9700	U
86-30-6	n-Nitrosodiphenylamine	1900	U
101-55-3	4-Bromophenyl phenyl ether	1900	U
118-74-1	Hexachlorobenzene	1900	U
87-86-5	Pentachlorophenol	9700	U
85-01-8	Phenanthrene	8000	
120-12-7	Anthracene	2500	
84-74-2	Di-n-butyl phthalate	270	J
86-74-8	Carbazole	920	J
206-44-0	Fluoranthene	7400	
129-00-0	Pyrene	12000	
85-68-7	Butyl benzyl phthalate	1900	U
91-94-1	3,3'-Dichlorobenzidine	1900	U
56-55-3	Benzo[a]anthracene	6500	
218-01-9	Chrysene	4800	
117-81-7	bis(2-Ethylhexyl)phthalate	1900	U
117-84-0	Di-n-octyl phthalate	1900	U
205-99-2	Benzo[b]fluoranthene	5300	
207-08-9	Benzo[k]fluoranthene	1600	J
50-32-8	Benzo[a]pyrene	3100	
193-39-5	Indeno[1,2,3-cd]pyrene	1600	J
53-70-3	Dibenz[a,h]anthracene	1900	U
191-24-2	Benzo[g,h,i]perylene	1600	J

0001370

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

GP13T

Lab Name: Upstate Labs., Inc. Contract: C&H Engine

Lab Code: 10170 Case No.: _____ SAS No.: _____ SDG No.: CH07

Matrix: (soil/water) SOIL Lab Sample ID: 20598184

Sample wt/vol: 30 (g/ml) G Lab File ID: A5368.D

Level: (low/med) LOW Date Received: 07/24/98

% Moisture: 7 decanted:(Y/N) N Date Extracted: 07/28/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/12/98

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
111-44-4	bis(2-Chloroethyl)ether	360	U
108-95-2	Phenol	360	U
95-57-8	2-Chlorophenol	360	U
541-73-1	1,3-Dichlorobenzene	360	U
106-46-7	1,4-Dichlorobenzene	360	U
95-50-1	1,2-Dichlorobenzene	360	U
108-60-1	2,2'-oxybis(1-Chloropropane)	360	U
95-48-7	2-Methylphenol	360	U
67-72-1	Hexachloroethane	360	U
621-64-7	N-Nitroso-di-n-propylamine	360	U
106-44-5	4-Methylphenol	360	U
98-95-3	Nitrobenzene	360	U
78-59-1	Isophorone	360	U
88-75-5	2-Nitrophenol	360	U
105-67-9	2,4-Dimethylphenol	360	U
111-91-1	bis(2-Chloroethoxy)methane	360	U
120-83-2	2,4-Dichlorophenol	360	U
120-82-1	1,2,4-Trichlorobenzene	360	U
91-20-3	Naphthalene	200	J
106-47-8	4-Chloroaniline	360	U
87-68-3	Hexachlorobutadiene	360	U
59-50-7	4-Chloro-3-methylphenol	360	U
91-57-6	2-Methylnaphthalene	130	J
77-47-4	Hexachlorocyclopentadiene	360	U
88-06-2	2,4,6-Trichlorophenol	360	U
95-95-4	2,4,5-Trichlorophenol	1800	U
91-58-7	2-Chloronaphthalene	360	U
88-74-4	2-Nitroaniline	1800	U
208-96-8	Acenaphthylene	520	J
131-11-3	Dimethyl phthalate	360	U
606-20-2	2,6-Dinitrotoluene	360	U
83-32-9	Acenaphthene	290	J
99-09-2	3-Nitroaniline	1800	U
51-28-5	2,4-Dinitrophenol	1800	U
132-64-9	Dibenzofuran	240	J
121-14-2	2,4-Dinitrotoluene	360	U
100-02-7	4-Nitrophenol	1800	U

JB

0001433

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GP13T

Lab Name: Upstate Labs., Inc. Contract: C&H Engine

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH07

Matrix: (soil/water) SOIL Lab Sample ID: 20598184

Sample wt/vol: 30 (g/ml) G Lab File ID: A5368.D

Level: (low/med) LOW Date Received: 07/24/98

% Moisture: 7 decanted:(Y/N) N Date Extracted: 07/28/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/12/98

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG		Q
86-73-7	Fluorene		430	J
7005-72-3	4-Chlorophenyl phenyl ether		360	U
84-66-2	Diethyl phthalate		360	U
100-01-6	4-Nitroaniline		1800	U
534-52-1	4,6-Dinitro-2-methylphenol		1800	U
86-30-6	n-Nitrosodiphenylamine		360	U
101-55-3	4-Bromophenyl phenyl ether		360	U
118-74-1	Hexachlorobenzene		360	U
87-86-5	Pentachlorophenol		1800	U
85-01-8	Phenanthrene	4800	3200	EDJ
120-12-7	Anthracene		980	J
84-74-2	Di-n-butyl phthalate		360	UJ
86-74-8	Carbazole		450	J
206-44-0	Fluoranthene	6600	3600	EDJ
129-00-0	Pyrene	9400	6600	EDJ
85-68-7	Butyl benzyl phthalate		360	UJ
91-94-1	3,3'-Dichlorobenzidine		360	UJ
56-55-3	Benzo[a]anthracene		2600	J
218-01-9	Chrysene		1900	J
117-81-7	bis(2-Ethylhexyl)phthalate	360	~~400~~	BJ
117-84-0	Di-n-octyl phthalate		360	UJ
205-99-2	Benzo[b]fluoranthene		2700	J
207-08-9	Benzo[k]fluoranthene		1100	J
50-32-8	Benzo[a]pyrene		1600	J
193-39-5	Indeno[1,2,3-cd]pyrene		870	J
53-70-3	Dibenz[a,h]anthracene		330	J
191-24-2	Benzo[g,h,i]perylene		910	J

785

731

0001440

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GP16T

Lab Name: Upstate Labs., Inc. Contract: C&H Engine

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH07

Matrix: (soil/water) SOIL Lab Sample ID: 20598185

Sample wt/vol: 30 (g/ml) G Lab File ID: A5369.D

Level: (low/med) LOW Date Received: 07/24/98

% Moisture: 6 decanted:(Y/N) N Date Extracted: 07/28/98

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 08/12/98

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
111-44-4	bis(2-Chloroethyl)ether	1800	U
108-95-2	Phenol	1800	U
95-57-8	2-Chlorophenol	1800	U
541-73-1	1,3-Dichlorobenzene	1800	U
106-46-7	1,4-Dichlorobenzene	1800	U
95-50-1	1,2-Dichlorobenzene	1800	U
108-60-1	2,2'-oxybis(1-Chloropropane)	1800	U
95-48-7	2-Methylphenol	1800	U
67-72-1	Hexachloroethane	1800	U
621-64-7	N-Nitroso-di-n-propylamine	1800	U
106-44-5	4-Methylphenol	1800	U UJ
98-95-3	Nitrobenzene	1800	U
78-59-1	Isophorone	1800	U
88-75-5	2-Nitrophenol	1800	U
105-67-9	2,4-Dimethylphenol	1800	U
111-91-1	bis(2-Chloroethoxy)methane	1800	U
120-83-2	2,4-Dichlorophenol	1800	U
120-82-1	1,2,4-Trichlorobenzene	1800	U
91-20-3	Naphthalene	1800 ~~970~~	~~J~~ UJ
106-47-8	4-Chloroaniline	1800	U
87-68-3	Hexachlorobutadiene	1800	U UJ
59-50-7	4-Chloro-3-methylphenol	1800	U
91-57-6	2-Methylnaphthalene	580	J
77-47-4	Hexachlorocyclopentadiene	1800	U
88-06-2	2,4,6-Trichlorophenol	1800	U
95-95-4	2,4,5-Trichlorophenol	8900	U UJ
91-58-7	2-Chloronaphthalene	1800	U
88-74-4	2-Nitroaniline	8900	U
208-96-8	Acenaphthylene	880	J
131-11-3	Dimethyl phthalate	1800	U
606-20-2	2,6-Dinitrotoluene	1800	U UJ
83-32-9	Acenaphthene	1400	J
99-09-2	3-Nitroaniline	8900	U
51-28-5	2,4-Dinitrophenol	8900	U UJ
132-64-9	Dibenzofuran	1100	J
121-14-2	2,4-Dinitrotoluene	1800	U
100-02-7	4-Nitrophenol	8900	U UJ

TB

0001515

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GP16T

Lab Name: Upstate Labs., Inc. Contract: C&H Engine

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH07

Matrix: (soil/water) SOIL Lab Sample ID: 20598185

Sample wt/vol: 30 (g/ml) G Lab File ID: A5369.D

Level: (low/med) LOW Date Received: 07/24/98

% Moisture: 6 decanted:(Y/N) N Date Extracted: 07/28/98

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 08/12/98

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
86-73-7	Fluorene	1700	U
7005-72-3	4-Chlorophenyl phenyl ether	1800	U
84-66-2	Diethyl phthalate	1800	U
100-01-6	4-Nitroaniline	8900	U
534-52-1	4,6-Dinitro-2-methylphenol	8900	U
86-30-6	n-Nitrosodiphenylamine	1800	U
101-55-3	4-Bromophenyl phenyl ether	1800	U
118-74-1	Hexachlorobenzene	1800	U
87-86-5	Pentachlorophenol	8900	U
85-01-8	Phenanthrene	13000	
120-12-7	Anthracene	3900	
84-74-2	Di-n-butyl phthalate	1800	U
86-74-8	Carbazole	1800	
206-44-0	Fluoranthene	13000	
129-00-0	Pyrene	28000 ~~24000~~	E D
85-68-7	Butyl benzyl phthalate	1800	U
91-94-1	3,3'-Dichlorobenzidine	1800	U
56-55-3	Benzo[a]anthracene	11000	
218-01-9	Chrysene	9200	
117-81-7	bis(2-Ethylhexyl)phthalate	1800	U
117-84-0	Di-n-octyl phthalate	1800	U
205-99-2	Benzo[b]fluoranthene	12000	
207-08-9	Benzo[k]fluoranthene	4400	
50-32-8	Benzo[a]pyrene	7500	
193-39-5	Indeno[1,2,3-cd]pyrene	4700	
53-70-3	Dibenz[a,h]anthracene	1500	J
191-24-2	Benzo[g,h,i]perylene	3900	J

J85

0001516

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GP17T

Lab Name: Upstate Labs., Inc. Contract: C&H Engine

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH07

Matrix: (soil/water) SOIL Lab Sample ID: 20598186

Sample wt/vol: 30 (g/ml) G Lab File ID: A5363.D

Level: (low/med) LOW Date Received: 07/24/98

% Moisture: 22 decanted:(Y/N) N Date Extracted: 07/28/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/11/98

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
111-44-4	bis(2-Chloroethyl)ether	430	U
108-95-2	Phenol	430	U
95-57-8	2-Chlorophenol	430	U
541-73-1	1,3-Dichlorobenzene	430	U
106-46-7	1,4-Dichlorobenzene	430	U
95-50-1	1,2-Dichlorobenzene	430	U
108-60-1	2,2'-oxybis(1-Chloropropane)	430	U
95-48-7	2-Methylphenol	430	U
67-72-1	Hexachloroethane	430	U
621-64-7	N-Nitroso-di-n-propylamine	430	U
106-44-5	4-Methylphenol	430	U
98-95-3	Nitrobenzene	430	U
78-59-1	Isophorone	430	U UJ
88-75-5	2-Nitrophenol	430	U
105-67-9	2,4-Dimethylphenol	430	U
111-91-1	bis(2-Chloroethoxy)methane	430	U
120-83-2	2,4-Dichlorophenol	430	U
120-82-1	1,2,4-Trichlorobenzene	430	U
91-20-3	Naphthalene	430	U
106-47-8	4-Chloroaniline	430	U
87-68-3	Hexachlorobutadiene	430	U
59-50-7	4-Chloro-3-methylphenol	430	U
91-57-6	2-Methylnaphthalene	3300	J
77-47-4	Hexachlorocyclopentadiene	430	U
88-06-2	2,4,6-Trichlorophenol	430	U
95-95-4	2,4,5-Trichlorophenol	2100	U
91-58-7	2-Chloronaphthalene	430	U
88-74-4	2-Nitroaniline	2100	U
208-96-8	Acenaphthylene	430	U
131-11-3	Dimethyl phthalate	430	U
606-20-2	2,6-Dinitrotoluene	430	U UJ
83-32-9	Acenaphthene	430	U
99-09-2	3-Nitroaniline	2100	U
51-28-5	2,4-Dinitrophenol	2100	U
132-64-9	Dibenzofuran	430	U
121-14-2	2,4-Dinitrotoluene	430	U
100-02-7	4-Nitrophenol	2100	U

0001591

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GP17T

Lab Name: Upstate Labs., Inc. Contract: C&H Engine

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH07

Matrix: (soil/water) SOIL Lab Sample ID: 20598186

Sample wt/vol: 30 (g/ml) G Lab File ID: A5363.D

Level: (low/med) LOW Date Received: 07/24/98

% Moisture: 22 decanted:(Y/N) N Date Extracted: 07/28/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/11/98

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
86-73-7	Fluorene	430	U
7005-72-3	4-Chlorophenyl phenyl ether	430	U
84-66-2	Diethyl phthalate	430	U
100-01-6	4-Nitroaniline	2100	U
534-52-1	4,6-Dinitro-2-methylphenol	2100	U
86-30-6	n-Nitrosodiphenylamine	430	U
101-55-3	4-Bromophenyl phenyl ether	430	U
118-74-1	Hexachlorobenzene	430	U
87-86-5	Pentachlorophenol	2100	U
85-01-8	Phenanthrene	1300	J
120-12-7	Anthracene	230	J
84-74-2	Di-n-butyl phthalate	430	U
86-74-8	Carbazole	430	U
206-44-0	Fluoranthene	130	J
129-00-0	Pyrene	430 ~~180~~	J
85-68-7	Butyl benzyl phthalate	430	U
91-94-1	3,3'-Dichlorobenzidine	430	U
56-55-3	Benzo[a]anthracene	430	U
218-01-9	Chrysene	430	U
117-81-7	bis(2-Ethylhexyl)phthalate	59	~~JB~~
117-84-0	Di-n-octyl phthalate	430	U
205-99-2	Benzo[b]fluoranthene	430	U
207-08-9	Benzo[k]fluoranthene	430	U
50-32-8	Benzo[a]pyrene	430	U
193-39-5	Indeno[1,2,3-cd]pyrene	430	U
53-70-3	Dibenz[a,h]anthracene	430	U
191-24-2	Benzo[g,h,i]perylene	430	U

0001592

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

GP25T

Lab Name: Upstate Labs., Inc. Contract: C&H Engine

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH07

Matrix: (soil/water) SOIL Lab Sample ID: 20598187

Sample wt/vol: 30 (g/ml) G Lab File ID: A5370.D

Level: (low/med) LOW Date Received: 07/24/98

% Moisture: 12 decanted:(Y/N) N Date Extracted: 07/28/98

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 08/12/98

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
111-44-4	bis(2-Chloroethyl)ether	1900	U
108-95-2	Phenol	1900	U
95-57-8	2-Chlorophenol	1900	U
541-73-1	1,3-Dichlorobenzene	1900	U
106-46-7	1,4-Dichlorobenzene	1900	U
95-50-1	1,2-Dichlorobenzene	1900	U
108-60-1	2,2'-oxybis(1-Chloropropane)	1900	U
95-48-7	2-Methylphenol	1900	U
67-72-1	Hexachloroethane	1900	U
621-64-7	N-Nitroso-di-n-propylamine	1900	U UJ
106-44-5	4-Methylphenol	1900	U
98-95-3	Nitrobenzene	1900	U
78-59-1	Isophorone	1900	U
88-75-5	2-Nitrophenol	1900	U
105-67-9	2,4-Dimethylphenol	1900	U
111-91-1	bis(2-Chloroethoxy)methane	1900	U
120-83-2	2,4-Dichlorophenol	1900	U
120-82-1	1,2,4-Trichlorobenzene	1900	U
91-20-3	Naphthalene	1900 ~~360~~	J U UJ
106-47-8	4-Chloroaniline	1900	U
87-68-3	Hexachlorobutadiene	1900	U UJ
59-50-7	4-Chloro-3-methylphenol	1900	U
91-57-6	2-Methylnaphthalene	450	J
77-47-4	Hexachlorocyclopentadiene	1900	U
88-06-2	2,4,6-Trichlorophenol	1900	U
95-95-4	2,4,5-Trichlorophenol	9500	U UJ
91-58-7	2-Chloronaphthalene	1900	U
88-74-4	2-Nitroaniline	9500	U
208-96-8	Acenaphthylene	220	J
131-11-3	Dimethyl phthalate	1900	U
606-20-2	2,6-Dinitrotoluene	1900	U UJ
83-32-9	Acenaphthene	250	J
99-09-2	3-Nitroaniline	9500	U
51-28-5	2,4-Dinitrophenol	9500	U UJ
132-64-9	Dibenzofuran	300	J
121-14-2	2,4-Dinitrotoluene	1900	U UJ
100-02-7	4-Nitrophenol	9500	U

0001621

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GP25T

Lab Name: Upstate Labs., Inc. Contract: C&H Engine

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH07

Matrix: (soil/water) SOIL Lab Sample ID: 20598187

Sample wt/vol: 30 (g/ml) G Lab File ID: A5370.D

Level: (low/med) LOW Date Received: 07/24/98

% Moisture: 12 decanted:(Y/N) N Date Extracted: 07/28/98

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 08/12/98

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
86-73-7	Fluorene	310	J
7005-72-3	4-Chlorophenyl phenyl ether	1900	U
84-66-2	Diethyl phthalate	1900	U
100-01-6	4-Nitroaniline	9500	U
534-52-1	4,6-Dinitro-2-methylphenol	9500	U
86-30-6	n-Nitrosodiphenylamine	1900	U
101-55-3	4-Bromophenyl phenyl ether	1900	U
118-74-1	Hexachlorobenzene	1900	U
87-86-5	Pentachlorophenol	9500	U
85-01-8	Phenanthrene	4600	J
120-12-7	Anthracene	880	J
84-74-2	Di-n-butyl phthalate	1900	U
86-74-8	Carbazole	1900	U
206-44-0	Fluoranthene	2400	J
129-00-0	Pyrene	9500	J
85-68-7	Butyl benzyl phthalate	1900	U
91-94-1	3,3'-Dichlorobenzidine	1900	U
56-55-3	Benzo[a]anthracene	1900 ~~2700~~	UJ
218-01-9	Chrysene	2500	J
117-81-7	bis(2-Ethylhexyl)phthalate	1900	U
117-84-0	Di-n-octyl phthalate	1900	U
205-99-2	Benzo[b]fluoranthene	1900	U
207-08-9	Benzo[k]fluoranthene	1900	U
50-32-8	Benzo[a]pyrene	1900	U
193-39-5	Indeno[1,2,3-cd]pyrene	1900	U
53-70-3	Dibenz[a,h]anthracene	1900	U
191-24-2	Benzo[g,h,i]perylene	1900	U

0001622

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T-01T

Lab Name: Upstate Labs., Inc. Contract: C&H Engine

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH08

Matrix: (soil/water) SOIL Lab Sample ID: 21598005

Sample wt/vol: 30 (g/ml) G Lab File ID: A5338.D

Level: (low/med) LOW Date Received: 07/31/98

% Moisture: 43 decanted:(Y/N) N Date Extracted: 08/05/98

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 08/10/98

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
111-44-4	bis(2-Chloroethyl)ether	5800	U
108-95-2	Phenol	5800	U
95-57-8	2-Chlorophenol	5800	U
541-73-1	1,3-Dichlorobenzene	5800	U
106-46-7	1,4-Dichlorobenzene	5800	U
95-50-1	1,2-Dichlorobenzene	5800	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5800	U
95-48-7	2-Methylphenol	5800	U
67-72-1	Hexachloroethane	5800	U
621-64-7	N-Nitroso-di-n-propylamine	5800	U UJ
106-44-5	4-Methylphenol	5800	U
98-95-3	Nitrobenzene	5800	U
78-59-1	Isophorone	5800	U
88-75-5	2-Nitrophenol	5800	U
105-67-9	2,4-Dimethylphenol	5800	U
111-91-1	bis(2-Chloroethoxy)methane	5800	U
120-83-2	2,4-Dichlorophenol	5800	U
120-82-1	1,2,4-Trichlorobenzene	5800	U
91-20-3	Naphthalene	8700	J
106-47-8	4-Chloroaniline	5800	U
87-68-3	Hexachlorobutadiene	5800	U UJ
59-50-7	4-Chloro-3-methylphenol	5800	U
91-57-6	2-Methylnaphthalene	2800	J
77-47-4	Hexachlorocyclopentadiene	5800	U
88-06-2	2,4,6-Trichlorophenol	5800	U
95-95-4	2,4,5-Trichlorophenol	29000	U
91-58-7	2-Chloronaphthalene	5800	U
88-74-4	2-Nitroanilline	29000	U
208-96-8	Acenaphthylene	5800	U
131-11-3	Dimethyl phthalate	5800	U
606-20-2	2,6-Dinitrotoluene	5800	U UJ
83-32-9	Acenaphthene	5800	U
99-09-2	3-Nitroaniline	29000	U
51-28-5	2,4-Dinitrophenol	29000	U
132-64-9	Dibenzofuran	5800	U
121-14-2	2,4-Dinitrotoluene	5800	U
100-02-7	4-Nitrophenol	29000	U

0001679

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T-01T

Lab Name: Upstate Labs., Inc. Contract: C&H Engine

Lab Code: 10170 Case No.: _____ SAS No.: _____ SDG No.: CH08

Matrix: (soil/water) SOIL Lab Sample ID: 21598005

Sample wt/vol: 30 (g/ml) G Lab File ID: A5338.D

Level: (low/med) LOW Date Received: 07/31/98

% Moisture: 43 decanted:(Y/N) N Date Extracted: 08/05/98

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 08/10/98

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
86-73-7	Fluorene	5800	U
7005-72-3	4-Chlorophenyl phenyl ether	5800	U
84-66-2	Diethyl phthalate	5800	U
100-01-6	4-Nitroaniline	29000	U
534-52-1	4,6-Dinitro-2-methylphenol	29000	U
86-30-6	n-Nitrosodiphenylamine	5800	U
101-55-3	4-Bromophenyl phenyl ether	5800	U
118-74-1	Hexachlorobenzene	5800	U
87-86-5	Pentachlorophenol	29000	U
85-01-8	Phenanthrene	5800	U
120-12-7	Anthracene	5800	U
84-74-2	Di-n-butyl phthalate	5800	U
86-74-8	Carbazole	5800	U
206-44-0	Fluoranthene	7800	J
129-00-0	Pyrene	5800	U
85-68-7	Butyl benzyl phthalate	5800	U
91-94-1	3,3'-Dichlorobenzidine	5800	U
56-55-3	Benzo[a]anthracene	5800	U
218-01-9	Chrysene	5800	U
117-81-7	bis(2-Ethylhexyl)phthalate	5800	U
117-84-0	Di-n-octyl phthalate	5800	U
205-99-2	Benzo[b]fluoranthene	5800	U
207-08-9	Benzo[k]fluoranthene	5800	U
50-32-8	Benzo[a]pyrene	5800	U
193-39-5	Indeno[1,2,3-cd]pyrene	5800	U
53-70-3	Dibenz[a,h]anthracene	5800	U
191-24-2	Benzo[g,h,i]perylene	5800	U

785

0001680

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T-02T

Lab Name: Upstate Labs., Inc. Contract: C&H Engine

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH08

Matrix: (soil/water) SOIL Lab Sample ID: 21598006

Sample wt/vol: 30 (g/ml) G Lab File ID: A5337.D

Level: (low/med) LOW Date Received: 07/31/98

% Moisture: 17 decanted:(Y/N) N Date Extracted: 08/05/98

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 08/10/98

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
111-44-4	bis(2-Chloroethyl)ether	800	U
108-95-2	Phenol	800	U
95-57-8	2-Chlorophenol	800	U
541-73-1	1,3-Dichlorobenzene	800	U
106-46-7	1,4-Dichlorobenzene	800	U
95-50-1	1,2-Dichlorobenzene	800	U
108-60-1	2,2'-oxybis(1-Chloropropane)	800	U
95-48-7	2-Methylphenol	800	U
67-72-1	Hexachloroethane	800	U
621-64-7	N-Nitroso-di-n-propylamine	800	U
106-44-5	4-Methylphenol	800	U
98-95-3	Nitrobenzene	800	U
78-59-1	Isophorone	800	U
88-75-5	2-Nitrophenol	800	U
105-67-9	2,4-Dimethylphenol	800	U
111-91-1	bis(2-Chloroethoxy)methane	800	U
120-83-2	2,4-Dichlorophenol	800	U
120-82-1	1,2,4-Trichlorobenzene	800	U
91-20-3	Naphthalene	~~800~~ 2000	U J
106-47-8	4-Chloroaniline	800	U
87-68-3	Hexachlorobutadiene	800	U
59-50-7	4-Chloro-3-methylphenol	800	U
91-57-6	2-Methylnaphthalene	4900	
77-47-4	Hexachlorocyclopentadiene	800	U
88-06-2	2,4,6-Trichlorophenol	800	U
95-95-4	2,4,5-Trichlorophenol	4000	U
91-58-7	2-Chloronaphthalene	800	U
88-74-4	2-Nitroaniline	4000	U
208-96-8	Acenaphthylene	800	U
131-11-3	Dimethyl phthalate	800	U
606-20-2	2,6-Dinitrotoluene	800	U
83-32-9	Acenaphthene	800	U
99-09-2	3-Nitroaniline	4000	U
51-28-5	2,4-Dinitrophenol	4000	U
132-64-9	Dibenzofuran	800	U
121-14-2	2,4-Dinitrotoluene	800	U
100-02-7	4-Nitrophenol	4000	U

0001708

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T-02T

Lab Name: Upstate Labs., Inc. Contract: C&H Engine

Lab Code: 10170 Case No.: _____ SAS No.: _____ SDG No.: CH08

Matrix: (soil/water) SOIL Lab Sample ID: 21598006

Sample wt/vol: 30 (g/ml) G Lab File ID: A5337.D

Level: (low/med) LOW Date Received: 07/31/98

% Moisture: 17 decanted:(Y/N) N Date Extracted: 08/05/98

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 08/10/98

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
86-73-7	Fluorene	800	U
7005-72-3	4-Chlorophenyl phenyl ether	800	U
84-66-2	Diethyl phthalate	800	U
100-01-6	4-Nitroaniline	4000	U
534-52-1	4,6-Dinitro-2-methylphenol	4000	U
86-30-6	n-Nitrosodiphenylamine	800	U
101-55-3	4-Bromophenyl phenyl ether	800	U
118-74-1	Hexachlorobenzene	800	U
87-86-5	Pentachlorophenol	4000	U
85-01-8	Phenanthrene	3500	J
120-12-7	Anthracene	800	U
84-74-2	Di-n-butyl phthalate	800	U
86-74-8	Carbazole	800	U
206-44-0	Fluoranthene	800	U
129-00-0	Pyrene	800	U
85-68-7	Butyl benzyl phthalate	800	U
91-94-1	3,3'-Dichlorobenzidine	800	U
56-55-3	Benzo[a]anthracene	800	U
218-01-9	Chrysene	800	U
117-81-7	bis(2-Ethylhexyl)phthalate	800	U
117-84-0	Di-n-octyl phthalate	800	U
205-99-2	Benzo[b]fluoranthene	800	U
207-08-9	Benzo[k]fluoranthene	800	U
50-32-8	Benzo[a]pyrene	800	U
193-39-5	Indeno[1,2,3-cd]pyrene	800	U
53-70-3	Dibenz[a,h]anthracene	800	U
191-24-2	Benzo[g,h,i]perylene	800	U

0001709

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T-04T

Lab Name: Upstate Labs., Inc. Contract: C&H Engine

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH08

Matrix: (soil/water) SOIL Lab Sample ID: 21598007

Sample wt/vol: 30 (g/ml) G Lab File ID: A5336.D

Level: (low/med) LOW Date Received: 07/31/98

% Moisture: 14 decanted:(Y/N) N Date Extracted: 08/05/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/10/98

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
111-44-4	bis(2-Chloroethyl)ether	390	U
108-95-2	Phenol	390	U
95-57-8	2-Chlorophenol	390	U
541-73-1	1,3-Dichlorobenzene	390	U
106-46-7	1,4-Dichlorobenzene	390	U
95-50-1	1,2-Dichlorobenzene	390	U
108-60-1	2,2'-oxybis(1-Chloropropane)	390	U
95-48-7	2-Methylphenol	390	U
67-72-1	Hexachloroethane	390	U
621-64-7	N-Nitroso-di-n-propylamine	390	U
106-44-5	4-Methylphenol	390	U
98-95-3	Nitrobenzene	390	U
78-59-1	Isophorone	390	U
88-75-5	2-Nitrophenol	390	U
105-67-9	2,4-Dimethylphenol	390	U
111-91-1	bis(2-Chloroethoxy)methane	390	U
120-83-2	2,4-Dichlorophenol	390	U
120-82-1	1,2,4-Trichlorobenzene	390	U
91-20-3	Naphthalene	390 ~~620~~	U J
106-47-8	4-Chloroaniline	390	U
87-68-3	Hexachlorobutadiene	390	U
59-50-7	4-Chloro-3-methylphenol	390	U
91-57-6	2-Methylnaphthalene	1400	J
77-47-4	Hexachlorocyclopentadiene	390	U
88-06-2	2,4,6-Trichlorophenol	390	U
95-95-4	2,4,5-Trichlorophenol	1900	U
91-58-7	2-Chloronaphthalene	390	U
88-74-4	2-Nitroaniline	1900	U
208-96-8	Acenaphthylene	390	U
131-11-3	Dimethyl phthalate	390	U
606-20-2	2,6-Dinitrotoluene	390	U
83-32-9	Acenaphthene	390	U
99-09-2	3-Nitroaniline	1900	U
51-28-5	2,4-Dinitrophenol	1900	U
132-64-9	Dibenzofuran	390	U
121-14-2	2,4-Dinitrotoluene	390	U
100-02-7	4-Nitrophenol	1900	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T-04T

Lab Name: Upstate Labs., Inc. Contract: C&H Engine

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH08

Matrix: (soil/water) SOIL Lab Sample ID: 21598007

Sample wt/vol: 30 (g/ml) G Lab File ID: A5336.D

Level: (low/med) LOW Date Received: 07/31/98

% Moisture: 14 decanted:(Y/N) N Date Extracted: 08/05/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/10/98

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
86-73-7	Fluorene	390	U
7005-72-3	4-Chlorophenyl phenyl ether	390	U
84-66-2	Diethyl phthalate	390	U
100-01-6	4-Nitroaniline	1900	U
534-52-1	4,6-Dinitro-2-methylphenol	1900	U
86-30-6	n-Nitrosodiphenylamine	390	U
101-55-3	4-Bromophenyl phenyl ether	390	U
118-74-1	Hexachlorobenzene	390	U
87-86-5	Pentachlorophenol	1900	U
85-01-8	Phenanthrene	390	U
120-12-7	Anthracene	390	U
84-74-2	Di-n-butyl phthalate	550	BU
86-74-8	Carbazole	390	U
206-44-0	Fluoranthene	390	U
129-00-0	Pyrene	390	U
85-68-7	Butyl benzyl phthalate	390	U
91-94-1	3,3'-Dichlorobenzidine	390	U
56-55-3	Benzo[a]anthracene	390	U
218-01-9	Chrysene	390	U
117-81-7	bis(2-Ethylhexyl)phthalate	390	U
117-84-0	Di-n-octyl phthalate	390	U
205-99-2	Benzo[b]fluoranthene	390	U
207-08-9	Benzo[k]fluoranthene	390	U
50-32-8	Benzo[a]pyrene	390	U
193-39-5	Indeno[1,2,3-cd]pyrene	390	U
53-70-3	Dibenz[a,h]anthracene	390	U
191-24-2	Benzo[g,h,i]perylene	390	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T-05T

Lab Name: Upstate Labs., Inc. Contract: C&H Engine

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH08

Matrix: (soil/water) SOIL Lab Sample ID: 21598008

Sample wt/vol: 30 (g/ml) G Lab File ID: A5333.D

Level: (low/med) LOW Date Received: 07/31/98

% Moisture: 37 decanted:(Y/N) N Date Extracted: 08/05/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/10/98

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
111-44-4	bis(2-Chloroethyl)ether	530	U
108-95-2	Phenol	530	U
95-57-8	2-Chlorophenol	530	U
541-73-1	1,3-Dichlorobenzene	530	U
106-46-7	1,4-Dichlorobenzene	530	U
95-50-1	1,2-Dichlorobenzene	530	U
108-60-1	2,2'-oxybis(1-Chloropropane)	530	U
95-48-7	2-Methylphenol	530	U
67-72-1	Hexachloroethane	530	U
621-64-7	N-Nitroso-di-n-propylamine	530	U
106-44-5	4-Methylphenol	530	U
98-95-3	Nitrobenzene	530	U
78-59-1	Isophorone	530	U
88-75-5	2-Nitrophenol	530	U
105-67-9	2,4-Dimethylphenol	530	U
111-91-1	bis(2-Chloroethoxy)methane	530	U
120-83-2	2,4-Dichlorophenol	530	U
120-82-1	1,2,4-Trichlorobenzene	530	U
91-20-3	Naphthalene	530	U
106-47-8	4-Chloroaniline	530	U
87-68-3	Hexachlorobutadiene	530	U
59-50-7	4-Chloro-3-methylphenol	530	U
91-57-6	2-Methylnaphthalene	110	J
77-47-4	Hexachlorocyclopentadiene	530	U
88-06-2	2,4,6-Trichlorophenol	530	U
95-95-4	2,4,5-Trichlorophenol	2600	U
91-58-7	2-Chloronaphthalene	530	U
88-74-4	2-Nitroaniline	2600	U
208-96-8	Acenaphthylene	530	U
131-11-3	Dimethyl phthalate	530	U
606-20-2	2,6-Dinitrotoluene	530	U
83-32-9	Acenaphthene	530	U
99-09-2	3-Nitroaniline	2600	U
51-28-5	2,4-Dinitrophenol	2600	U
132-64-9	Dibenzofuran	530	U
121-14-2	2,4-Dinitrotoluene	530	U
100-02-7	4-Nitrophenol	2600	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T-05T

Lab Name: Upstate Labs., Inc. Contract: C&H Engine

Lab Code: 10170 Case No.: _____ SAS No.: _____ SDG No.: CH08

Matrix: (soil/water) SOIL Lab Sample ID: 21598008

Sample wt/vol: 30 (g/ml) G Lab File ID: A5333.D

Level: (low/med) LOW Date Received: 07/31/98

% Moisture: 37 decanted:(Y/N) N Date Extracted: 08/05/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/10/98

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
86-73-7	Fluorene	530	U
7005-72-3	4-Chlorophenyl phenyl ether	530	U
84-66-2	Diethyl phthalate	530	U
100-01-6	4-Nitroaniline	2600	U
534-52-1	4,6-Dinitro-2-methylphenol	2600	U
86-30-6	n-Nitrosodiphenylamine	530	U
101-55-3	4-Bromophenyl phenyl ether	530	U
118-74-1	Hexachlorobenzene	530	U
87-86-5	Pentachlorophenol	2600	U
85-01-8	Phenanthrene	390	J
120-12-7	Anthracene	530	U
84-74-2	Di-n-butyl phthalate	620	B U
86-74-8	Carbazole	530	U
206-44-0	Fluoranthene	530	U
129-00-0	Pyrene	530	U
85-68-7	Butyl benzyl phthalate	530	U
91-94-1	3,3'-Dichlorobenzidine	530	U
56-55-3	Benzo[a]anthracene	530	U
218-01-9	Chrysene	530	U
117-81-7	bis(2-Ethylhexyl)phthalate	530	U
117-84-0	Di-n-octyl phthalate	530	U
205-99-2	Benzo[b]fluoranthene	530	U
207-08-9	Benzo[k]fluoranthene	530	U
50-32-8	Benzo[a]pyrene	530	U
193-39-5	Indeno[1,2,3-cd]pyrene	530	U
53-70-3	Dibenz[a,h]anthracene	530	U
191-24-2	Benzo[g,h,i]perylene	530	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T-06T

Lab Name: Upstate Labs., Inc. Contract: C&H Engine

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH08

Matrix: (soil/water) SOIL Lab Sample ID: 21598009

Sample wt/vol: 30 (g/ml) G Lab File ID: A5335.D

Level: (low/med) LOW Date Received: 07/31/98

% Moisture: 32 decanted:(Y/N) N Date Extracted: 08/05/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/10/98

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
111-44-4	bis(2-Chloroethyl)ether	490	U
108-95-2	Phenol	490	U
95-57-8	2-Chlorophenol	490	U
541-73-1	1,3-Dichlorobenzene	490	U
106-46-7	1,4-Dichlorobenzene	490	U
95-50-1	1,2-Dichlorobenzene	490	U
108-60-1	2,2'-oxybis(1-Chloropropane)	490	U
95-48-7	2-Methylphenol	490	U
67-72-1	Hexachloroethane	490	U
621-64-7	N-Nitroso-di-n-propylamine	490	U
106-44-5	4-Methylphenol	490	U
98-95-3	Nitrobenzene	490	U
78-59-1	Isophorone	490	U
88-75-5	2-Nitrophenol	490	U
105-67-9	2,4-Dimethylphenol	490	U
111-91-1	bis(2-Chloroethoxy)methane	490	U
120-83-2	2,4-Dichlorophenol	490	U
120-82-1	1,2,4-Trichlorobenzene	490	U
91-20-3	Naphthalene	490	U
106-47-8	4-Chloroaniline	490	U
87-68-3	Hexachlorobutadiene	490	U
59-50-7	4-Chloro-3-methylphenol	490	U
91-57-6	2-Methylnaphthalene	490	U
77-47-4	Hexachlorocyclopentadiene	490	U
88-06-2	2,4,6-Trichlorophenol	490	U
95-95-4	2,4,5-Trichlorophenol	2500	U
91-58-7	2-Chloronaphthalene	490	U
88-74-4	2-Nitroaniline	2500	U
208-96-8	Acenaphthylene	490	U
131-11-3	Dimethyl phthalate	490	U
606-20-2	2,6-Dinitrotoluene	490	U
83-32-9	Acenaphthene	490	U
99-09-2	3-Nitroaniline	2500	U
51-28-5	2,4-Dinitrophenol	2500	U
132-64-9	Dibenzofuran	490	U
121-14-2	2,4-Dinitrotoluene	490	U
100-02-7	4-Nitrophenol	2500	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T-06T

Lab Name: Upstate Labs., Inc. Contract: C&H Engine

Lab Code: 10170 Case No.: _____ SAS No.: _____ SDG No.: CH08

Matrix: (soil/water) SOIL Lab Sample ID: 21598009

Sample wt/vol: 30 (g/ml) G Lab File ID: A5335.D

Level: (low/med) LOW Date Received: 07/31/98

% Moisture: 32 decanted:(Y/N) N Date Extracted: 08/05/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/10/98

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
86-73-7	Fluorene	490	U
7005-72-3	4-Chlorophenyl phenyl ether	490	U
84-66-2	Diethyl phthalate	490	U
100-01-6	4-Nitroaniline	2500	U
534-52-1	4,6-Dinitro-2-methylphenol	2500	U
86-30-6	n-Nitrosodiphenylamine	490	U
101-55-3	4-Bromophenyl phenyl ether	490	U
118-74-1	Hexachlorobenzene	490	U UJ
87-86-5	Pentachlorophenol	2500	U
85-01-8	Phenanthrene	490	U
120-12-7	Anthracene	490	U
84-74-2	Di-n-butyl phthalate	1200	B UJ
86-74-8	Carbazole	490	U
206-44-0	Fluoranthene	490	U
129-00-0	Pyrene	490	U
85-68-7	Butyl benzyl phthalate	490	U
91-94-1	3,3'-Dichlorobenzidine	490	U
56-55-3	Benzo[a]anthracene	490	U UJ
218-01-9	Chrysene	490	U
117-81-7	bis(2-Ethylhexyl)phthalate	97	JB UJ
117-84-0	Di-n-octyl phthalate	490	U
205-99-2	Benzo[b]fluoranthene	490	U UJ
207-08-9	Benzo[k]fluoranthene	490	U
50-32-8	Benzo[a]pyrene	340	J J
193-39-5	Indeno[1,2,3-cd]pyrene	490	U
53-70-3	Dibenz[a,h]anthracene	490	U UJ
191-24-2	Benzo[g,h,i]perylene	490	U

780

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-01

Lab Name: Upstate Labs., Inc. Contract: C&H Engine

Lab Code: 10170 Case No.: _____ SAS No.: _____ SDG No.: CH08

Matrix: (soil/water) WATER Lab Sample ID: 21998023

Sample wt/vol: 1000 (g/ml) ML Lab File ID: A5472.D

Level: (low/med) LOW Date Received: 08/06/98

% Moisture: _____ decanted:(Y/N) N Date Extracted: 08/13/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/24/98

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
111-44-4	bis(2-Chloroethyl)ether	10	UJ
108-95-2	Phenol	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
95-48-7	2-Methylphenol	10	U
67-72-1	Hexachloroethane	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	UJ
106-44-5	4-Methylphenol	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
208-96-8	Acenaphthylene	10	U
131-11-3	Dimethyl phthalate	10	U
606-20-2	2,6-Dinitrotoluene	10	U
83-32-9	Acenaphthene	10	U
99-09-2	3-Nitroaniline	50	U
51-28-5	2,4-Dinitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
100-02-7	4-Nitrophenol	50	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-01

Lab Name: Upstate Labs., Inc. Contract: C&H Engine

Lab Code: 10170 Case No.: _____ SAS No.: _____ SDG No.: CH08

Matrix: (soil/water) WATER Lab Sample ID: 21998023

Sample wt/vol: 1000 (g/ml) ML Lab File ID: A5472.D

Level: (low/med) LOW Date Received: 08/06/98

% Moisture: _____ decanted:(Y/N) N Date Extracted: 08/13/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/24/98

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
86-73-7	Fluorene	10	U
7005-72-3	4-Chlorophenyl phenyl ether	10	U
84-66-2	Diethyl phthalate	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-methylphenol	50	U
86-30-6	n-Nitrosodiphenylamine	10	U
101-55-3	4-Bromophenyl phenyl ether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-butyl phthalate	37	B UJ
86-74-8	Carbazole	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butyl benzyl phthalate	30	B UJ
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo[a]anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	47	B UJ
117-84-0	Di-n-octyl phthalate	10	U
205-99-2	Benzo[b]fluoranthene	10	U
207-08-9	Benzo[k]fluoranthene	10	U
50-32-8	Benzo[a]pyrene	10	U
193-39-5	Indeno[1,2,3-cd]pyrene	10	U UJ
53-70-3	Dibenz[a,h]anthracene	10	U UJ
191-24-2	Benzo[g,h,i]perylene	10	U UJ

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-02

Lab Name: Upstate Labs., Inc. Contract: C&H Engine

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH08

Matrix: (soil/water) WATER Lab Sample ID: 21998024

Sample wt/vol: 1000 (g/ml) ML Lab File ID: A5475.D

Level: (low/med) LOW Date Received: 08/06/98

% Moisture: decanted:(Y/N) N Date Extracted: 08/13/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/24/98

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
111-44-4	bis(2-Chloroethyl)ether	10	UJ
108-95-2	Phenol	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
95-48-7	2-Methylphenol	10	U
67-72-1	Hexachloroethane	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	UJ
106-44-5	4-Methylphenol	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
208-96-8	Acenaphthylene	10	U
131-11-3	Dimethyl phthalate	10	U
606-20-2	2,6-Dinitrotoluene	10	U
83-32-9	Acenaphthene	10	U
99-09-2	3-Nitroaniline	50	U
51-28-5	2,4-Dinitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
100-02-7	4-Nitrophenol	50	U

UJ

UJ

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-02

Lab Name: Upstate Labs., Inc. Contract: C&H Engine

Lab Code: 10170 Case No.: _____ SAS No.: _____ SDG No.: CH08

Matrix: (soil/water) WATER Lab Sample ID: 21998024

Sample wt/vol: 1000 (g/ml) ML Lab File ID: A5475.D

Level: (low/med) LOW Date Received: 08/06/98

% Moisture: _____ decanted:(Y/N) N Date Extracted: 08/13/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/24/98

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
86-73-7	Fluorene	10	U
7005-72-3	4-Chlorophenyl phenyl ether	10	U
84-66-2	Diethyl phthalate	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-methylphenol	50	U
86-30-6	n-Nitrosodiphenylamine	10	U
101-55-3	4-Bromophenyl phenyl ether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-butyl phthalate	26	B U J
86-74-8	Carbazole	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butyl benzyl phthalate	13	B U J
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo[a]anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	30	B U J
117-84-0	Di-n-octyl phthalate	10	U
205-99-2	Benzo[b]fluoranthene	10	U
207-08-9	Benzo[k]fluoranthene	10	U
50-32-8	Benzo[a]pyrene	10	U
193-39-5	Indeno[1,2,3-cd]pyrene	10	U U J
53-70-3	Dibenz[a,h]anthracene	10	U U J
191-24-2	Benzo[g,h,i]perylene	10	U U J

J U J

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-03

Lab Name: Upstate Labs., Inc. Contract: C&H Engine

Lab Code: 10170 Case No.: _____ SAS No.: _____ SDG No.: CH08

Matrix: (soil/water) WATER Lab Sample ID: 21998025

Sample wt/vol: 1000 (g/ml) ML Lab File ID: A5476.D

Level: (low/med) LOW Date Received: 08/06/98

% Moisture: _____ decanted:(Y/N) N Date Extracted: 08/13/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/24/98

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
111-44-4	bis(2-Chloroethyl)ether	10	U
108-95-2	Phenol	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
95-48-7	2-Methylphenol	10	U
67-72-1	Hexachloroethane	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
106-44-5	4-Methylphenol	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
208-96-8	Acenaphthylene	10	U
131-11-3	Dimethyl phthalate	10	U
606-20-2	2,6-Dinitrotoluene	10	U
83-32-9	Acenaphthene	10	U
99-09-2	3-Nitroaniline	50	U
51-28-5	2,4-Dinitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
100-02-7	4-Nitrophenol	50	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-03

Lab Name: Upstate Labs., Inc. Contract: C&H Engine

Lab Code: 10170 Case No.: _____ SAS No.: _____ SDG No.: CH08

Matrix: (soil/water) WATER Lab Sample ID: 21998025

Sample wt/vol: 1000 (g/ml) ML Lab File ID: A5476.D

Level: (low/med) LOW Date Received: 08/06/98

% Moisture: _____ decanted:(Y/N) N Date Extracted: 08/13/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/24/98

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
86-73-7	Fluorene	10	U
7005-72-3	4-Chlorophenyl phenyl ether	10	U
84-66-2	Diethyl phthalate	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-methylphenol	50	U
86-30-6	n-Nitrosodiphenylamine	10	U
101-55-3	4-Bromophenyl phenyl ether	10	U
118-74-1	Hexachlorobenzene	10	U UJ
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-butyl phthalate	49	B U J
86-74-8	Carbazole	10	U
206-44-0	Fluoranthene	10	U UJ
129-00-0	Pyrene	10	U
85-68-7	Butyl benzyl phthalate	26	B U J
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo[a]anthracene	10	U UJ
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	44	B U J
117-84-0	Di-n-octyl phthalate	10	U
205-99-2	Benzo[b]fluoranthene	10	U
207-08-9	Benzo[k]fluoranthene	10	U UJ
50-32-8	Benzo[a]pyrene	10	U
193-39-5	Indeno[1,2,3-cd]pyrene	10	U UJ
53-70-3	Dibenz[a,h]anthracene	10	U UJ
191-24-2	Benzo[g,h,i]perylene	10	U UJ

JJS

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-04

Lab Name: Upstate Labs., Inc. Contract: C&H Engine

Lab Code: 10170 Case No.: _____ SAS No.: _____ SDG No.: CH08

Matrix: (soil/water) WATER Lab Sample ID: 21998026

Sample wt/vol: 1000 (g/ml) ML Lab File ID: A5477.D

Level: (low/med) LOW Date Received: 08/06/98

% Moisture: _____ decanted:(Y/N) N Date Extracted: 08/13/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/24/98

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
111-44-4	bis(2-Chloroethyl)ether	10	UJ
108-95-2	Phenol	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
95-48-7	2-Methylphenol	10	U
67-72-1	Hexachloroethane	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	UJ
106-44-5	4-Methylphenol	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
208-96-8	Acenaphthylene	10	U
131-11-3	Dimethyl phthalate	10	U
606-20-2	2,6-Dinitrotoluene	10	U
83-32-9	Acenaphthene	10	U
99-09-2	3-Nitroaniline	50	U
51-28-5	2,4-Dinitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
100-02-7	4-Nitrophenol	50	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-04

Lab Name: Upstate Labs., Inc. Contract: C&H Engine

Lab Code: 10170 Case No.: _____ SAS No.: _____ SDG No.: CH08

Matrix: (soil/water) WATER Lab Sample ID: 21998026

Sample wt/vol: 1000 (g/ml) ML Lab File ID: A5477.D

Level: (low/med) LOW Date Received: 08/06/98

% Moisture: _____ decanted:(Y/N) N Date Extracted: 08/13/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/24/98

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
86-73-7	Fluorene	10	U
7005-72-3	4-Chlorophenyl phenyl ether	10	U
84-66-2	Diethyl phthalate	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-methylphenol	50	U
86-30-6	n-Nitrosodiphenylamine	10	U
101-55-3	4-Bromophenyl phenyl ether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-butyl phthalate	61	BU
86-74-8	Carbazole	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butyl benzyl phthalate	8	JBU
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo[a]anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	16	BU
117-84-0	Di-n-octyl phthalate	10	U
205-99-2	Benzo[b]fluoranthene	10	U
207-08-9	Benzo[k]fluoranthene	10	U
50-32-8	Benzo[a]pyrene	10	U
193-39-5	Indeno[1,2,3-cd]pyrene	10	U
53-70-3	Dibenz[a,h]anthracene	10	U
191-24-2	Benzo[g,h,i]perylene	10	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-05

Lab Name: Upstate Labs., Inc. Contract: C&H Engine

Lab Code: 10170 Case No.: _____ SAS No.: _____ SDG No.: CH08

Matrix: (soil/water) WATER Lab Sample ID: 21998027

Sample wt/vol: 1000 (g/ml) ML Lab File ID: A5423.D

Level: (low/med) LOW Date Received: 08/06/98

% Moisture: _____ decanted:(Y/N) N Date Extracted: 08/12/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/19/98

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
111-44-4	bis(2-Chloroethyl)ether	10	U
108-95-2	Phenol	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
95-48-7	2-Methylphenol	10	U
67-72-1	Hexachloroethane	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
106-44-5	4-Methylphenol	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
208-96-8	Acenaphthylene	10	U
131-11-3	Dimethyl phthalate	10	U
606-20-2	2,6-Dinitrotoluene	10	U
83-32-9	Acenaphthene	10	U
99-09-2	3-Nitroaniline	50	U
51-28-5	2,4-Dinitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
100-02-7	4-Nitrophenol	50	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-05

Lab Name: Upstate Labs., Inc. Contract: C&H Engine

Lab Code: 10170 Case No.: _____ SAS No.: _____ SDG No.: CH08

Matrix: (soil/water) WATER Lab Sample ID: 21998027

Sample wt/vol: 1000 (g/ml) ML Lab File ID: A5423.D

Level: (low/med) LOW Date Received: 08/06/98

% Moisture: _____ decanted:(Y/N) N Date Extracted: 08/12/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/19/98

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
86-73-7	Fluorene	10	U
7005-72-3	4-Chlorophenyl phenyl ether	10	U
84-66-2	Diethyl phthalate	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-methylphenol	50	U
86-30-6	n-Nitrosodiphenylamine	10	U
101-55-3	4-Bromophenyl phenyl ether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-butyl phthalate	10	U
86-74-8	Carbazole	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butyl benzyl phthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo[a]anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	9	JBU
117-84-0	Di-n-octyl phthalate	10	U
205-99-2	Benzo[b]fluoranthene	10	U
207-08-9	Benzo[k]fluoranthene	10	U
50-32-8	Benzo[a]pyrene	10	U
193-39-5	Indeno[1,2,3-cd]pyrene	10	U
53-70-3	Dibenz[a,h]anthracene	10	U
191-24-2	Benzo[g,h,i]perylene	10	U

DATA USABILITY SUMMARY REPORT

for

BEARDSLEY DESIGN ASSOCIATES

431 EAST FAYETTE STREET

EAST SYRACUSE, NY 13202

FORMER BROWN MANUFACTURING SITE
SDG CH07, CH08
Sampled 7/20-22/98, 7/30/98, 8/6/98

SOILS and AQUEOUS SAMPLES for PCB

HB-9	(20598180)	GP-2	(20598181)	GP-8	(20598182)
GP-5	(20598183)	GP-13	(20598184)	GP-16	(20598185)
GP-25	(20598187)	T-1	(21598005)	T-2	(21598006
T-4	(21598007)	T-5	(21598008)	T-6	(21598009)
T-4oil	(21598010)	MW-1	(21998023)	MW-2	(21998024)
MW-3	(21998025)	MW-4	(21998026)	MW-5	(21998027)

DATA ASSESSMENT

A PCB data package containing analytical results for twelve soils, five aqueous samples, and one sample of oil that was collected with groundwater, was received from Beardsley Design Associates on 16Nov01. The ASP deliverables package included formal reports, raw data, the necessary QC, and supporting information. The samples, taken from the Former Brown Manufacturing site, were identified by Chain of Custody documents and trackable through the work of Upstate Laboratories, Inc., the laboratory contracted for analysis. Analyses, performed according to SW-846 Method 8080, addressed PCB analytes. Laboratory data was evaluated according to the Quality Assurance / Quality Control Requirements of the New York State Department of Environmental Conservation's Analytical Services Protocol (ASP), September 1989, Rev. 6/2000. When ASP protocol was not followed, the current EPA Region II Functional Guidelines (SPO NO. HW-6, Rev. #8, Jan. 1992, CLP Organics Data Review and Preliminary Review), was used as a technical reference.

CORRECTNESS AND USABILITY

Cooler temperatures between 11.9°C and 14.9°C were reported when this group of samples arrived at the laboratory. Because the samples were not properly chilled to 4°C at the time of collection, the possibility of degradative losses cannot be ignored. The results reported from every sample except T-4oil, a concentrated waste, have been qualified as estimations.

The concentrations of AR-1254 reported from HB-9 and GP-13, and the positive AR-1248 result from T-4 were not confirmed by a second analysis using a different chromatography system. Due to this omission, the positive PCB results reported from this group of samples have been qualified as estimations.

The header information on every Form 1 contained errors. Each report form has been edited to reflect correct analysis dates, sample dilutions, and units of concentration.

Reported data should be considered technically defensible in its present form. Reported concentrations that are felt to provide a usable estimation of the conditions being measured have been flagged "J" or "UJ". Estimated data should be used with caution. A detailed discussion of the review process follows.

Two facts should be considered by all data users. No compound concentration, even if it has passed all QC testing, can be guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error. Secondly.

DATAVAL, Inc. guarantees the quality of this data assessment. However, DATAVAL, Inc. does not warrant any interpretation or utilization of this data by a third party.

Reviewer's signature: James B. Baldwin Date: 1/21/02

SAMPLE HISTORY

Analyte concentrations can deteriorate with time due to chemical instability, bacterial degradation or volatility. Samples that are not properly preserved, or are not analyzed within established holding times, may no longer be considered representative. Holding times are calculated from the time of sample collection. Samples must remain chilled to 4°C from the time of collection. Aqueous samples must be extracted within 7 days. The extraction of soil samples must begin within 14 days of collection. Analyses must be completed within 40 days of extraction. Each sample delivery group, containing up to 20 samples, should include a field duplicate, a matrix spike, matrix spike duplicate, and a rinsate blank.

This sample delivery group, which included twelve soils, five aqueous samples, and one sample of oil that was collected with groundwater, was collected from the Former Brown Manufacturing site between 20Jul98 and 06Aug98. The samples were delivered to the laboratory in five groups (samples collected on 20Jul98, samples collected on 21Jul98, samples collected on 22Jul98, samples collected on 30Jul98 and 31Jul98, and samples collected on 06Aug98). Each group of samples arrived at the laboratory within two days of collection. A custody seal was present on each sample cooler, with the exception of the cooler used to transport the groundwater samples collected on 06Aug98. The groundwaters were sampled and immediately delivered to the laboratory.

Although the laboratory record indicates that most of the sample coolers contained ice, the loading was inadequate to properly chill the samples. Sample temperatures between 11.9°C and 14.9°C were recorded by the laboratory at the time of receipt. Due to the possibility of analyte losses caused by improper handling, the results reported from every sample except T-4oil, a concentrated waste, have been qualified as estimations.

Each soil sample was extracted within eight days of collection. Aqueous samples were extracted within five days. The analysis of each sample, including repeated analyses, was completed within nine days of extraction. Program holding time limitations were satisfied.

Method 8080 requires that each positive Aroclor result be confirmed by a similar analysis using a second, dissimilar chromatography column. The results obtained from both systems must be in close agreement. A second analysis was not performed to confirm the presence of AR-1254 in HB-9 and GP-13, or the presence of AR-1248 in T-4. Each of these results has been qualified as an estimation.

Errors were present on the report form of every sample. Where necessary, the date of analysis, the level of dilution, and the units of concentration have been corrected.

BLANKS
Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Method blanks are analyzed to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

Four method blanks were analyzed with this group of samples. Each of these blanks was free of PCB contamination.

CALIBRATION
Requirements for instrument calibration are established to ensure that laboratory equipment is capable of producing accurate, quantitative data. Initial calibrations demonstrate a range through which measurements may be made. Continuing calibration standards verify instrument stability.

The initial instrument calibration was performed on 10Jun98. Five levels of concentration were included for AR1016 and AR1260. Three standards were included for the remaining Aroclors. With the exception of AR1221, the lowest calibration standard for each Aroclor equaled PQL. The detection limit for AR1221 has been doubled, to reflect the concentration of the lowest standard.

Poor linearity was observed in the calibrations for AR1016, AR1232 and AR1242. Although errors would be expected in concentrations calculated from these curves, it may be assumed that AR1016, AR1232 and AR1242 would be detected if present in samples. Because they were not detected, associated data has been left unqualified.

A continuing calibration verification was completed prior to and following each group of program samples. These checks produced acceptable recoveries of AR1016 and AR1260.

SURROGATES
Each sample, blank and standard is spiked with surrogate compounds prior to analysis. The structures of surrogates are similar to analytes of interest, but they are not normally found in environmental samples. Surrogate recoveries are monitored to evaluate overall laboratory performance and the efficiency of laboratory technique.

Two surrogates, TCX and DCB, were added to each sample. In most cases, these additions were recovered successfully. High recoveries were reported for the surrogate additions T-4oil. This indication of positive bias warrants no concern. PBC's were not detected in this sample.

Low surrogate recoveries were reported from HB-9 and T-1. In both cases, the low recoveries were reported from sample dilutions that were prepared following the addition of surrogates. The low recoveries reported from these samples are not considered significant. The surrogates added to the remaining samples were recovered successfully.

MATRIX SPIKES / MATRIX SPIKE DUPLICATES / MATRIX SPIKED BLANKS
Matrix spiking refers to the addition of known analyte concentrations to a sample, prior to analysis. Analyte recoveries provide an indication of laboratory accuracy. The analysis of a duplicate spiked aliquot provides a measurement of precision.

Samples HB-9 and T-1 were selected for matrix spiking. MS/MSD recoveries were also reported for a sample from an unrelated program. Only the results obtained from HB-9 and T-1 should be considered significant. Low spike recoveries were reported for the analyte additions to both samples. Again, the reported recoveries were obtained following large sample dilutions. Data has not been qualified based on matrix spike performance.

DUPLICATES
Two aliquots of the same sample are processed separately through all aspects of sample preparation and analysis. Results produced by the analysis of this pair of samples are compared as a measurement of precision. Poor precision, may be indicative of sample non-homogeneity, method defects, or poor laboratory technique.

Field split duplicates were not included in this group of samples.

SUMMARY OF QUALIFIED DATA

FORMER BROWN MANUFACTURING SITE

SAMPLED 7/20/98 thru 8/6/98

		HANDLING	FORM 1 HEADER	CRDL AR1221	CONFIRMATION AR-1248	CONFIRMATION AR-1254
HB-9	(20598180)	ALL J/UJ	CORRECT	2.00		72J
GP-2	(20598181)	ALL UJ	CORRECT	0.18		
GP-8	(20598182)	ALL UJ	CORRECT	0.20		
GP-5	(20598183)	ALL UJ	CORRECT	0.20		
GP-13	(20598184)	ALL J/UJ	CORRECT	0.18		22J
GP-16	(20598185)	ALL UJ	CORRECT	0.18		
GP-25	(20598187)	ALL UJ	CORRECT	0.18		
T-1	(21598005)	ALL UJ	CORRECT	30.0		
T-2	(21598006)	ALL UJ	CORRECT	0.20		
T-4	(21598007)	ALL J/UJ	CORRECT	0.20	5.0J	
T-5	(21598008)	ALL UJ	CORRECT	0.20		
T-6	(21598009)	ALL UJ	CORRECT	0.20		
T-4oil	(21598101)		CORRECT	10.0		
MW-1	(21998023)	ALL UJ	CORRECT	0.10		
MW-2	(21998024)	ALL UJ	CORRECT	0.10		
MW-3	(21998025)	ALL UJ	CORRECT	0.10		
MW-4	(21998026)	ALL UJ	CORRECT	0.10		
MW-5	(21998027)	ALL UJ	CORRECT	0.10		

1A
PCB ANALYSIS DATA SHEET

Lab Name: Upstate Labs Inc.

Lab Code: 10170

Matrix: Soil

Lab Sample ID: C&H 205-180

Sample wt.: 30 (g)

Lab File ID: PA4401

% Moisture: 20 Decanted: No

Date Received:

Extraction: Son Dis

Date Extracted: 7/28/98

Conc Extract Vol.: 10000 (uL)

Date Analyzed: ~~7/31/98~~ 8/4/98

GPC Cleanup: No pH:

Dilution Factor: ~~50~~ 500 JBJ

Instr. ID: 50.0

Column: DB-608 ID: (.53)mm

Sulfur Cleanup: Yes

CAS NO.	COMPOUND	CONCENTRATION UNITS mg/Kg	Q	
12674-11-2	Aroclor 1016	1.00	U	
11104-28-2	Aroclor 1221	200 ~~1.00~~	U	
11141-16-5	Aroclor 1232	1.00	U	UJ
53469-21-9	Aroclor 1242	1.00	U	
12672-29-6	Aroclor 1248	1.00	U	
11097-69-1	Aroclor 1254	72.00	J	
11096-82-5	Aroclor 1260	1.00	U	UJ

JBJ

Prepared by: _____ Date: _____

Keypunched : _____ Date: _____

1A
PCB ANALYSIS DATA SHEET

Lab Name: Upstate Labs Inc.

Lab Code: 10170

Matrix:	Soil			Lab Sample ID:	C&H 205-181
Sample wt.:	30	(g)		Lab File ID:	PA4401
% Moisture:	11	Decanted:	No	Date Received:	
Extraction:	Son Dis			Date Extracted:	7/28/98
Conc Extract Vol.:		10000 (uL)		Date Analyzed:	~~7/31/98~~ 8/3/98
GPC Cleanup:	No	pH:		Dilution Factor:	50
Instr. ID:	50.0				
Column:	DB-608	ID:	(.53)mm	Sulfur Cleanup:	Yes

CAS NO.	COMPOUND	CONCENTRATION UNITS mg/Kg	Q
12674-11-2	Aroclor 1016	.09	U
11104-28-2	Aroclor 1221	0.18 ~~.09~~	U
11141-16-5	Aroclor 1232	.09	U
53469-21-9	Aroclor 1242	.09	U
12672-29-6	Aroclor 1248	.09	U
11097-69-1	Aroclor 1254	.09	U
11096-82-5	Aroclor 1260	.09	U

UJ

JRB

Prepared by: _____ Date: _____

Keypunched : _____ Date: _____

1A

PCB ANALYSIS DATA SHEET

Lab Name: Upstate Labs Inc.

Lab Code: 10170

Matrix Soil — Lab Sample ID: C&H 205-182

Sample wt.: 30 (g) — Lab File ID: PA4401

% Moisture: 14 — Decanted: No — Date Received:

Extraction: Son Dis — Date Extracted: 7/28/98

Conc Extract Vol.: 10000 (uL) — Date Analyzed: ~~7/31/98~~ 8/3/98

GPC Cleanup: No — pH: — Dilution Factor 50

Instr. ID: 50.0

Column: DB-608 — ID: (.53)mm — Sulfur Cleanup: Yes

CAS NO.	COMPOUND	CONCENTRATION UNITS mg/Kg	Q
12674-11-2	Aroclor 1016	.10	U
11104-28-2	Aroclor 1221	0.20 ~~.10~~	U
11141-16-5	Aroclor 1232	.10	U
53469-21-9	Aroclor 1242	.10	U
12672-29-6	Aroclor 1248	.10	U
11097-69-1	Aroclor 1254	.10	U
11096-82-5	Aroclor 1260	.10	U

U

JAB

Prepared by: _____ Date: _____

Keypunched : _____ Date: _____

1A

PCB ANALYSIS DATA SHEET

Lab Name: Upstate Labs Inc.

Lab Code: 10170

Matrix Soil

Lab Sample ID: C&H 205-183

Sample wt.: 30 (g)

Lab File ID: PA4401

% Moisture: 14 Decanted: No

Date Received:

Extraction: Son Dis

Date Extracted: 7/28/98

Conc Extract Vol.: 10000 (uL)

Date Analyzed: ~~7/31/98~~ 8/3/98

GPC Cleanup: No pH:

Dilution Factor 50

Instr. ID: 50.0

Column: DB-608 ID: (.53)mm

Sulfur Cleanup: Yes

CAS NO.	COMPOUND	CONCENTRATION UNITS mg/Kg	Q
12674-11-2	Aroclor 1016	.10	U
11104-28-2	Aroclor 1221	0.20 ~~.10~~	U
11141-16-5	Aroclor 1232	.10	U
53469-21-9	Aroclor 1242	.10	U
12672-29-6	Aroclor 1248	.10	U
11097-69-1	Aroclor 1254	.10	U
11096-82-5	Aroclor 1260	.10	U

U

MB

Prepared by: _____ Date: _____

Keypunched : _____ Date: _____

1A

PCB ANALYSIS DATA SHEET

Lab Name: Upstate Labs Inc.

Lab Code: 10170

Matrix Soil — Lab Sample ID: C&H 205-184

Sample wt.: 30 (g) — Lab File ID: PA4401

% Moisture: 7 — Decanted: No — Date Received:

Extraction: Son Dis — Date Extracted: 7/28/98

Conc Extract Vol.: 10000 (uL) — Date Analyzed: ~~7/31/98~~ 8/3/98

GPC Cleanup: No — pH: — Dilution Factor 50

Instr. ID: 50.0

Column: DB-608 — ID: (.53)mm — Sulfur Cleanup: Yes

CAS NO.	COMPOUND	CONCENTRATION UNITS mg/Kg	Q	
12674-11-2	Aroclor 1016	.09	U	
11104-28-2	Aroclor 1221	0.18 ~~.09~~	U	
11141-16-5	Aroclor 1232	.09	U	UJ
53469-21-9	Aroclor 1242	.09	U	
12672-29-6	Aroclor 1248	.09	U	
11097-69-1	Aroclor 1254	22.00		
11096-82-5	Aroclor 1260	.09	U	UJ

JJB

Prepared by: _____ Date: _____

Keypunched : _____ Date: _____

1A

PCB ANALYSIS DATA SHEET

Lab Name: Upstate Labs Inc.

Lab Code: 10170

Matrix Soil

Lab Sample ID: C&H 205-185

Sample wt.: 30 (g)

Lab File ID: PA4401

% Moisture: 8 Decanted: No

Date Received:

Extraction: Son Dis

Date Extracted: 7/28/98

Conc Extract Vol.: 10000 (uL)

Date Analyzed: ~~7/31/98~~ 8/3/98

GPC Cleanup: No pH:

Dilution Factor 50

Instr. ID: 50.0

Column: DB-608 ID: (.53)mm

Sulfur Cleanup: Yes

CAS NO.	COMPOUND	CONCENTRATION UNITS mg/Kg	Q
12674-11-2	Aroclor 1016	.09	U
11104-28-2	Aroclor 1221	0.18 ~~.09~~	U
11141-16-5	Aroclor 1232	.09	U
53469-21-9	Aroclor 1242	.09	U
12672-29-6	Aroclor 1248	.09	U
11097-69-1	Aroclor 1254	.09	U
11096-82-5	Aroclor 1260	.09	U

YD

Prepared by: _____ Date: _____

Keypunched : _____ Date: _____

1A

PCB ANALYSIS DATA SHEET

Lab Name: Upstate Labs Inc.

Lab Code: 10170

Matrix Soil

Lab Sample ID: C&H 205-187

Sample wt.: 30 (g)

Lab File ID: PA4401

% Moisture: 12 Decanted: No

Date Received:

Extraction: Son Dis

Date Extracted: 7/28/98

Conc Extract Vol.: 10000 (uL)

Date Analyzed: ~~7/31/98~~ 8/3/98

GPC Cleanup: No pH:

Dilution Factor 50

Instr. ID: 50.0

Column: DB-608 ID: (.53)mm

Sulfur Cleanup: Yes

CAS NO.	COMPOUND	CONCENTRATION UNITS mg/Kg	Q
12674-11-2	Aroclor 1016	.09	U
11104-28-2	Aroclor 1221	0.18 ~~.09~~	U
11141-16-5	Aroclor 1232	.09	U
53469-21-9	Aroclor 1242	.09	U
12672-29-6	Aroclor 1248	.09	U
11097-69-1	Aroclor 1254	.09	U
11096-82-5	Aroclor 1260	.09	U

Prepared by: _____ Date: _____

Keypunched : _____ Date: _____

1A
PCB ANALYSIS DATA SHEET

Lab Name: Upstate Labs Inc.

Lab Code: 10170

Matrix: soil

Lab Sample ID: C&H 215-5

Sample wt.: 30 (mL)

Lab File ID: PA4413

% Moisture: 43 Decanted: No

Date Received:

Extraction: Spn Dis

Date Extracted: 8/5/98

Conc Extract Vol.: 10000 (uL)

Date Analyzed: 8/14/98

GPC Cleanup: No pH:

Dilution Factor: ~~50~~ 5000

Instr. ID: 50.0

Column: DB-608 ID: (.53)mm

Sulfur Cleanup: Yes

CAS NO.	COMPOUND	CONCENTRATION UNITS ~~ug/L~~ mg/kg	Q
12674-11-2	Aroclor 1016	15.0	U
11104-28-2	Aroclor 1221	30.0 ~~15.0~~	U
11141-16-5	Aroclor 1232	15.0	U
53469-21-9	Aroclor 1242	15.0	U
12672-29-6	Aroclor 1248	15.0	U
11097-69-1	Aroclor 1254	15.0	U
11096-82-5	Aroclor 1260	15.0	U

U

Prepared by: _____ Date: _____

Keypunched : _____ Date: _____

0002465

1A
PCB ANALYSIS DATA SHEET

Lab Name: Upstate Labs Inc.

Lab Code: 10170

Matrix: soil

Lab Sample ID: C&H 215-6

Sample wt.: 30 (mL)

Lab File ID: PA4413

% Moisture: 17 Decanted: No

Date Received:

Extraction: Spn Dis

Date Extracted: 8/5/98

Conc Extract Vol.: 10000 (uL)

Date Analyzed: 8/13/98

GPC Cleanup: No pH:

Dilution Factor: 50

Instr. ID: 50.0

Column: DB-608 ID: (.53)mm

Sulfur Cleanup: Yes

CAS NO.	COMPOUND	CONCENTRATION UNITS ~~ug/L~~ mg/kg	Q
12674-11-2	Aroclor 1016	0.1	U
11104-28-2	Aroclor 1221	0.10 ~~0.1~~	U
11141-16-5	Aroclor 1232	0.1	U
53469-21-9	Aroclor 1242	0.1	U
12672-29-6	Aroclor 1248	0.1	U
11097-69-1	Aroclor 1254	0.1	U
11096-82-5	Aroclor 1260	0.1	U

JJB

Prepared by: _____ Date: _____

Keypunched : _____ Date: _____

1A
PCB ANALYSIS DATA SHEET

Lab Name: Upstate Labs Inc.

Lab Code: 10170

Matrix: Soil

Lab Sample ID: C&H 215-7

Sample wt.: 30 (mL)

Lab File ID: PA4413

% Moisture: 24 Decanted: No

Date Received:

Extraction: Spn Dis

Date Extracted: 8/5/98

Conc Extract Vol.: 10000 (uL)

Date Analyzed: 8/14/98

GPC Cleanup: No pH:

Dilution Factor: 50

Instr. ID: 50.0

Column: DB-608 ID: (.53)mm

Sulfur Cleanup: Yes

CAS NO.	COMPOUND	CONCENTRATION UNITS ~~ug/L~~ mg/kg	Q
12674-11-2	Aroclor 1016	0.1	U
11104-28-2	Aroclor 1221	0.20 ~~0.1~~	U
11141-16-5	Aroclor 1232	0.1	U
53469-21-9	Aroclor 1242	0.1	U
12672-29-6	Aroclor 1248	5.0	
11097-69-1	Aroclor 1254	0.1	U
11096-82-5	Aroclor 1260	0.1	U

Prepared by: _____ Date: _____

Keypunched : _____ Date: _____

1A
PCB ANALYSIS DATA SHEET

Lab Name: Upstate Labs Inc.

Lab Code: 10170

Matrix: soil		Lab Sample ID:	C&H 215-8
Sample wt.: 30	(mL)	Lab File ID:	PA4413
% Moisture: 37	Decanted: No	Date Received:	
Extraction: Spn Dis		Date Extracted:	8/5/98
Conc Extract Vol.:	10000 (uL)	Date Analyzed:	~~8/13/98~~ 8/14/98
GPC Cleanup: No	pH:	Dilution Factor:	50
Instr. ID: 50.0			
Column: DB-608	ID: (.53)mm	Sulfur Cleanup:	Yes

CAS NO.	COMPOUND	CONCENTRATION UNITS ~~ug/L~~ mg/kg	Q
12674-11-2	Aroclor 1016	0.1	U
11104-28-2	Aroclor 1221	0.20 ~~0.1~~	U
11141-16-5	Aroclor 1232	0.1	U
53469-21-9	Aroclor 1242	0.1	U
12672-29-6	Aroclor 1248	0.1	U
11097-69-1	Aroclor 1254	0.1	U
11096-82-5	Aroclor 1260	0.1	U

JB

Prepared by: _____ Date: _____

Keypunched : _____ Date: _____

1A
PCB ANALYSIS DATA SHEET

Lab Name: Upstate Labs Inc.

Lab Code: 10170

Matrix: soil

Lab Sample ID: C6H 215-9

Sample wt.: 30 (mL)

Lab File ID: PA4413

% Moisture: 32 Decanted: No

Date Received:

Extraction: Spn Dis

Date Extracted: 8/5/98

Conc Extract Vol.: 10000 (uL)

Date Analyzed: ~~8/13/98~~ 8/14/98

GPC Cleanup: No pH:

Dilution Factor: 50

Instr. ID: 50.0

Column: DB-608 ID: (.53)mm

Sulfur Cleanup: Yes

CAS NO.	COMPOUND	CONCENTRATION UNITS ~~ug/L~~ mg/kg	Q
12674-11-2	Aroclor 1016	0.1	U
11104-28-2	Aroclor 1221	0.20 ~~0.1~~	U
11141-16-5	Aroclor 1232	0.1	U
53469-21-9	Aroclor 1242	0.1	U
12672-29-6	Aroclor 1248	0.1	U
11097-69-1	Aroclor 1254	0.1	U
11096-82-5	Aroclor 1260	0.1	U

Prepared by: _____ Date: _____

Keypunched : _____ Date: _____

1A
PCB ANALYSIS DATA SHEET

Lab Name: Upstate Labs Inc.

Lab Code: 10170

Matrix: OIL

Lab Sample ID: C&H 215-10

Sample wt.: 0.05 (g)

Lab File ID: PA4416

% Moisture: N/A Decanted: No

Date Received:

Extraction: Son Dis

Date Extracted: 8/5/98

Conc Extract Vol.: 5000 (uL)

Date Analyzed: ~~8/11/98~~ 8/12/98

GPC Cleanup: No pH:

Dilution Factor: 10

Instr. ID: 50.0

Column: DB-608 ID: (.53)mm

Sulfur Cleanup: Yes

CAS NO.	COMPOUND	CONCENTRATION UNITS mg/Kg	Q
12674-11-2	Aroclor 1016	5.00	U
11104-28-2	Aroclor 1221	10.0 ~~5.00~~	U
11141-16-5	Aroclor 1232	5.00	U
53469-21-9	Aroclor 1242	5.00	U
12672-29-6	Aroclor 1248	5.00	U
11097-69-1	Aroclor 1254	5.00	U
11096-82-5	Aroclor 1260	5.00	U

Prepared by: _____ Date: _____

Keypunched : _____ Date: _____

1A
PCB ANALYSIS DATA SHEET

Lab Name: Upstate Labs Inc.

Lab Code: 10170

Matrix:	Water	Lab Sample ID:	C&H 219-23
Sample wt.:	1000 (g)	Lab File ID:	PA4427
% Moisture:	N/A Decanted: No	Date Received:	
Extraction:	Sep Fun	Date Extracted:	8/11/98
Conc Extract Vol.:	10000 (uL)	Date Analyzed:	8/20/98
GPC Cleanup:	No pH:	Dilution Factor:	1
Instr. ID:	50.0		
Column:	DB-608 ID: (.53)mm	Sulfur Cleanup:	Yes

CAS NO.	COMPOUND	CONCENTRATION UNITS ~~mg/Kg~~ ug/L	Q
12674-11-2	Aroclor 1016	.05	U
11104-28-2	Aroclor 1221	0.10 ~~.05~~	U
11141-16-5	Aroclor 1232	.05	U
53469-21-9	Aroclor 1242	.05	U
12672-29-6	Aroclor 1248	.05	U
11097-69-1	Aroclor 1254	.05	U
11096-82-5	Aroclor 1260	.05	U

JBS

Prepared by: _____ Date: _____

Keypunched : _____ Date: _____

1A
PCB ANALYSIS DATA SHEET

Lab Name: Upstate Labs Inc.

Lab Code: 10170

Matrix: Water

Lab Sample ID: C&H 219-24

Sample wt.: 1000 (g)

Lab File ID: PA4427

% Moisture: N/A Decanted: No

Date Received:

Extraction: Sep Fun

Date Extracted: 8/11/98

Conc Extract Vol.: 10000 (uL)

Date Analyzed: 8/20/98

GPC Cleanup: No pH:

Dilution Factor: 1

Instr. ID: 50.0

Column: DB-608 ID: (.53)mm

Sulfur Cleanup: Yes

CAS NO.	COMPOUND	CONCENTRATION UNITS ~~mg/Kg~~ ug/L	Q
12674-11-2	Aroclor 1016	.05	U
11104-28-2	Aroclor 1221	0.10 ~~.05~~	U
11141-16-5	Aroclor 1232	.05	U
53469-21-9	Aroclor 1242	.05	U
12672-29-6	Aroclor 1248	.05	U
11097-69-1	Aroclor 1254	.05	U
11096-82-5	Aroclor 1260	.05	U

JB

Prepared by: _____ Date: _____

Keypunched : _____ Date: _____

1A
PCB ANALYSIS DATA SHEET

Lab Name: Upstate Labs Inc.

Lab Code: 10170

Matrix: Water

Lab Sample ID: C&H 219-25

Sample wt.: 1000 (g)

Lab File ID: PA4427

% Moisture: N/A Decanted: No

Date Received:

Extraction: Sep Fun

Date Extracted: 8/11/98

Conc Extract Vol.: 10000 (uL)

Date Analyzed: 8/20/98

GPC Cleanup: No pH:

Dilution Factor: 1

Instr. ID: 50.0

Column: DB-608 ID: (.53)mm

Sulfur Cleanup: Yes

CAS NO.	COMPOUND	CONCENTRATION UNITS ~~mg/Kg~~ ug/L	Q
12674-11-2	Aroclor 1016	.05	U
11104-28-2	Aroclor 1221	0.10 ~~.05~~	U
11141-16-5	Aroclor 1232	.05	U
53469-21-9	Aroclor 1242	.05	U
12672-29-6	Aroclor 1248	.05	U
11097-69-1	Aroclor 1254	.05	U
11096-82-5	Aroclor 1260	.05	U

U1

Prepared by: _____ Date: _____

Keypunched : _____ Date: _____

1A
PCB ANALYSIS DATA SHEET

Lab Name: Upstate Labs Inc.

Lab Code: 10170

Matrix: Water

Lab Sample ID: C&H 219-26

Sample wt.: 1000 (g)

Lab File ID: PA4427

% Moisture: N/A Decanted: No

Date Received:

Extraction: Sep Fun

Date Extracted: 8/11/98

Conc Extract Vol.: 10000 (uL)

Date Analyzed: 8/20/98

GPC Cleanup: No pH:

Dilution Factor: 1

Instr. ID: 50.0

Column: DB-608 ID: (.53)mm

Sulfur Cleanup: Yes

CAS NO.	COMPOUND	CONCENTRATION UNITS ~~mg/Kg~~ ug/L	Q
12674-11-2	Aroclor 1016	.05	U
11104-28-2	Aroclor 1221	0.10 ~~.05~~	U
11141-16-5	Aroclor 1232	.05	U
53469-21-9	Aroclor 1242	.05	U
12672-29-6	Aroclor 1248	.05	U
11097-69-1	Aroclor 1254	.05	U
11096-82-5	Aroclor 1260	.05	U

U

Prepared by: _____ Date: _____

Keypunched : _____ Date: _____

1A

PCB ANALYSIS DATA SHEET

Lab Name: Upstate Labs Inc.

Lab Code: 10170

Matrix: Water

Lab Sample ID: C&H 219-27

Sample wt.: 1000 (g)

Lab File ID: PA4427

% Moisture: N/A Decanted: No

Date Received:

Extraction: Sep Fun

Date Extracted: 8/11/98

Conc Extract Vol.: 10000 (uL)

Date Analyzed: 8/20/98

GPC Cleanup: No pH:

Dilution Factor: 1

Instr. ID: 50.0

Column: DB-608 ID: (.53)mm

Sulfur Cleanup: Yes

CAS NO.	COMPOUND	CONCENTRATION UNITS ~~mg/Kg~~ ug/L	Q
12674-11-2	Aroclor 1016	.05	U
11104-28-2	Aroclor 1221	~~.05~~ QLD	U
11141-16-5	Aroclor 1232	.05	U
53469-21-9	Aroclor 1242	.05	U
12672-29-6	Aroclor 1248	.05	U
11097-69-1	Aroclor 1254	.05	U
11096-82-5	Aroclor 1260	.05	U

UJ

JB

Prepared by: _____ Date: _____

Keypunched : _____ Date: _____

DATA USABILITY SUMMARY REPORT

for

BEARDSLEY DESIGN ASSOCIATES

431 EAST FAYETTE STREET

EAST SYRACUSE, NY 13202

FORMER BROWN MANUFACTURING SITE
SDG CH08
Sampled 7/20-22/98, 7/30/98, 8/6/98

SOILS and AQUEOUS SAMPLES for INORGANICS

HB-9	(20598180)	GP-2	(20598181)	GP-8	(20598182)
GP-5	(20598183)	GP-13	(20598184)	GP-16	(20598185)
GP-17	(20598186)	GP-25	(20598187)	T-1	(21598005)
T-2	(21598006)	T-4	(21598007)	T-5	(21598008)
T-6	(21598009)	MW-1	(21998023)	MW-2	(21998024)
MW-3	(21998025)	MW-4	(21998026)	MW-5	(21998027)

DATA ASSESSMENT

A inorganics data package containing analytical results for thirteen soils and five aqueous samples was received from Beardsley Design Associates on 16Nov01. The ASP deliverables package included formal reports, raw data, the necessary QC, and supporting information. The samples, taken from the Former Brown Manufacturing site, were identified by Chain of Custody documents and trackable through the work of Upstate Laboratories, Inc., the laboratory contracted for analysis. Analyses, performed according to SW-846 methodologies, addressed Target Compound List analytes. Laboratory data was evaluated according to the Quality Assurance / Quality Control Requirements of the New York State Department of Environmental Conservation's Analytical Services Protocol (ASP), September 1989, Rev. 6/2000. When ASP protocol was not followed, the current EPA Region II Functional Guidelines (SOW HW-2, Rev. 11, Jan. 1992, Evaluation of Metals Data for the Contract Laboratory Program), was used as a technical reference.

The arsenic results reported from GP-5, GP-13, GP-16 and GP-17; the lead results from HB-9 and T-1, and the calcium results from GP-2 and T-1 have been qualified as estimations do to poor calibration performance.

Do to unacceptable CRDL recoveries, the lad results from T-5 and T-6, and the arsenic concentrations reported rom GP-25, T-2, T-4, T-5, MW-1, MW-2, MW-3 and MW-4 have been rejected. Similarly, the cadmium results from HB-9, GP-2, GP-8, GP-13, GP-17, T-2, T-4, T-5 and T-6; the nickel results from GP-5, T-2 and T-5; the chromium results from T-2, T-4 and T-6; the selenium results from T-5, T-6, Mw-1, MW-2, MW-3, MW-4 and MW-5; and the zinc results from MW-2, MW-3, MW-4 and MW-5 have been qualified as estimations.

The cadmium results reported from every soil sample except GP-5 and T-1 have been qualified as estimations do to possible interferences caused by high background concentrations of calcium.

The cadmium and zinc concentrations reported from each groundwater sample, and the silver results from T-1, T-2, T-4, T-5 and T-6 have been rejected due to poor matrix spike recoveries. The remaining silver and all zinc results have been qualified as estimations. Also due to poor spike recoveries, the antimony and mercury results reported from each soil sample have been qualified as estimations.

The cadmium, calcium, manganese and zinc results reported from each groundwater sample, and the arsenic, chromium, copper, lead, iron, manganese, nickel, potassium, selenium, sodium and thallium results reported from each soil have been qualified due to the poor precision demonstrated by the analysis of laboratory split duplicate samples.

With the exception of the cadmium result from GP-5, the antimony,

selenium, cadmium, manganese and zinc results from each soil sample have been qualified as estimations due to unacceptable Laboratory Control Sample recoveries.

The aluminum and iron results reported from each soil sample have been qualified as estimations due to poor serial dilution performance.

CORRECTNESS AND USABILITY

The mercury result reported from HB-9 has been qualified as an estimation because the program holding time limitation had expired one day prior to the analysis of this sample.

The metals results reported for every soil sample have been qualified as estimations because the associated ICP digestion records were incomplete. Similarly, the mercury results from every sample except T-1, T-2, T-4, T-5 and T-6 have been rejected.

Results reported from this group of samples should be considered technically defensible in their present form. Reported concentrations that are felt to provide a usable estimation of the conditions being measured have been flagged "J", "UJ" or "BJ". Data felt to be unreliable has been identified with a single red line and flagged "R". Rejected data should not be included in data tables. Estimated results should be used with caution. A detailed discussion of the review process follows.

Two facts should be considered by all data users. No compound concentration, even if it has passed strict QC testing, can be guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error. Secondly. DATAVAL, Inc. guarantees the quality of this data assessment. However, DATAVAL does not warrant any interpretation or utilization of this data by a third party.

Reviewer's signature: James B. Baldwin Date: 1/21/92

SAMPLE HISTORY

Sample holding times are calculated between the time of sampling and the time of analysis. Mercury samples must be analyzed within 28 days of sampling; the remaining metals within 180 days. Each sample delivery group, containing up to 20 samples, should include a field duplicate, a laboratory split duplicate, a matrix spiked sample, and a rinsate blank.

This sample delivery group, which included thirteen soils and five acid preserved aqueous samples, was collected from the Former Brown Manufacturing site between 20Jul98 and 06Aug98. The samples were delivered to the laboratory in five groups (samples collected on 20Jul98, samples collected on 21Jul98, samples collected on 22Jul98, samples collected on 30Jul98 and 31Jul98, and samples collected on 06Aug98). Each group of samples arrived at the laboratory within 2 days of collection. A custody seal was present on every sample cooler, with the exception of the cooler used to transport the groundwater samples collected on 06Aug98. The groundwaters were sampled and immediately delivered to the laboratory. This delivery group also contained an equipment blank that was created on 20Jul98.

The mercury sample from HB-9 was held for 29 days prior to analysis, exceeding the program holding time limitation by one day. That result has been qualified as an estimation. The remaining analyses were completed within established holding time limitations.

It is noted that the digestion records for this group of samples were incomplete. Dates, signatures, sample weights and standards information was missing. Although some sample weights and volumes were provided, only the ICP digestions of groundwater samples were properly documented.

None of the mercury digestions were properly documented. Sample weights were only provided for samples T-1, T-2, T-4, T-5 and T-6. The work was otherwise completely undocumented.

Due to inadequate documentation, the ICP results obtained from each soil sample, and the mercury results obtained from T-1, T-2, T-4, T-5 and T-6 have been qualified as estimations. Although these results may be considered technically usable, it should be understood that they would not withstand a legal challenge. The remaining mercury results have been rejected. Only the ICP results obtained from groundwater samples remain unqualified.

CALIBRATIONS

Calibration curves are constructed, using certified materials, to define the linear range of each analytical instrument. Beyond this

range measurements cannot be made with confidence. The calibration curve is immediately tested by analyzing an initial calibration verification standard (ICV). Continuing verifications (CCV) must bracket each group of up to ten samples. ICV and CCV recoveries must meet established criteria (90-110%).

ICP calibrations were performed with a blank and one standard. Mercury calibrations included a blank and four standards. Although CRDL was not demonstrated during the initial instrument calibration, a CRA standard was analyzed. Both mercury calibrations did demonstrate an acceptable degree of linearity.

Instrument calibrations were immediately verified by the analysis of an ICV standard. Continuing calibration checks were made following each group of 10 samples. Most of the calibration checks that were used to bracket samples from this program satisfied the program acceptance criteria.

Unacceptably high calibration results were reported for antimony (111%, 112%), arsenic (113%), calcium (129%) and lead (117%). Based on this performance, the positive arsenic results reported from GP-5, GP-13, GP-16, GP-17, and the Equipment Blank; the lead concentrations reported from T-1 and HB-9; and the calcium results from T-1 and GP-2 have been qualified as estimations.

CONTRACT REQUIRED DETECTION LIMIT STANDARDS (CRDL)
To verify instrument linearity near CRDL, an ICP standard at a concentration of twice CRDL (CRI) is analyzed at the beginning and end of each analytical sequence. A standard equaling CRDL (CRA) must be included in each atomic absorption sequence. CRDL standards must produce a recovery between 80% and 120%.

The required CRDL verifications were made at the beginning and end of each ICP run. A CRA standard was analyzed at the beginning of each mercury run. The CRDL recoveries reported by the laboratory included unacceptable results for arsenic (0%,13%, 63%), cadmium (138%,133%), chromium (123%), nickel (146%), selenium (73%,74%), lead (236%,394%), silver (140%,233%) and zinc (71%). Based on CRDL performance, arsenic, cadmium, chromium, nickel, selenium, lead, and zinc results less than two times CRDL have been qualified. Positive lead results, and all arsenic results within this range have been rejected. Positive cadmium, chromium, and nickel results, and all selenium and zinc results have been qualified as estimations.

BLANKS
Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Preparation blanks are carried through the digestion process with each group of

samples to evaluate general laboratory technique. Calibration blanks are run periodically to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

An initial blank (ICB) was analyzed following the calibration in each analytical sequence. Additional blanks were analyzed after every ten samples (CCB) and at the end of each sequence. Preparation blanks were digested, prior to analysis, with each group of samples. Although aluminum, arsenic, lead and silver calibration blanks did exceed CRDL, the analyte concentrations present in the associated samples exceeded the range requiring qualification.

ICP INTERFERENCE CHECK SAMPLE (ICS)
ICS standards are analyzed at the beginning and end of each ICP analysis sequence to verify background and interelement correction factors. The recoveries of specified analytes are measured in the presence of high Al, Ca, Mg and Fe concentrations.

Interference check standards, ICSA and ICSAB, were run at the beginning and end of each ICP analysis sequence. These produced unacceptable recoveries of cadmium (122%,123%), iron (73%) and calcium (123%). The iron and calcium results warrant no concern, the affected measurements were made beyond the linear range of the analytical instrument. The positive bias affecting cadmium must be considered. The traces of cadmium present in HB-9, GP-2, GP-8, GP-13, GP-16, GP-17, GP-25, T-2, T-4, T-5 and T-6 might be attributed to the high concentrations of calcium present in these samples. The affected results have been qualified as estimations.

PREDIGESTION SPIKE
The recovery of spike concentrations added to samples prior to digestion and analysis demonstrates measurement bias caused by sample matrix effects. Predigestion spikes must be recovered within control limits of 75-125%.

Samples MW-1, HB-9 and T-1 were selected for matrix spiking. Analyte additions to the groundwater produced extremely low recoveries of cadmium (2.3%) and zinc (0.5%). The spiked soils produced unacceptable recoveries of antimony (37%,22%), mercury (64%,141%), silver (0%,47%) and zinc (72%). Based on this performance, the cadmium and zinc results obtained from groundwater samples, and the silver results from T-1, T-2, T-4, T-5, T-6 have been rejected. Antimony, mercury, zinc and the remaining silver results have been qualified as estimations.

DUPLICATES
Two aliquots of the same sample are processed separately through all aspects of sample preparation and analysis. Results produced

by this pair of samples are compared as a measurement of precision. Poor precision may be indicative of sample non-homogeneity, method defects, or poor laboratory technique.

Laboratory split duplicates of MW-1, T-01 and HB-9 were analyzed with this group of samples. The duplicates of MW-1 demonstrated poor precision during measurements of cadmium, calcium, manganese and zinc. These analytes have been qualified in the associated groundwater samples. The soils produced unacceptable differences in measurements of arsenic, chromium, copper, lead, iron, manganese, nickel, potassium, selenium, sodium and thallium. These metals have been qualified as estimations on each soil report.

Field split duplicates were not included in this group of samples.

LABORATORY CONTROL SAMPLE (LCS)
Laboratory control samples are prepared by adding analytes to clean sand or reagent water. Analyte concentrations are then determined without interferences caused by sample matrix effects.

Aqueous and solid LCS samples were digested and analyzed with this group of samples. Acceptable recoveries were reported for the aqueous sample. One solid LCS sample produced a low antimony recovery and high recoveries of cadmium, manganese, selenium and zinc. The second LCS produced a low selenium recovery. Based on LCS performance, positive cadmium, manganese and zinc results reported from soils have been qualified as estimations. All antimony and selenium results reported from soils have been likewise qualified.

ICP SERIAL DILUTION SAMPLE
Possible matrix effects are verified by the process of serial dilutions. Samples are diluted 1:5 to reduce matrix contributions that might bias measurements. The original sample result, and the corrected concentration of the diluted sample are compared. Sample data is qualified if the original concentrations are not recovered within 10%. Analytes with initial concentrations below 10 times IDL are not considered.

MW-01, T-06 and GP-25 were prepared as serial dilutions. The measurements obtained from MW-01 were acceptable. Of the analytes present in the soil samples, at concentrations exceeding ten times IDL, measurements of aluminum and iron differed by more than 10%. Based on this performance, the aluminum and iron results reported from soil samples have been qualified as estimations.

SUMMARY OF QUALIFIED DATA

FORMER BROWN MANUFACTURING SITE — SAMPLED 7/20/98 thru 8/6/98

		HOLD TIME MERCURY	RECORDS ICP METALS	RECORDS MERCURY	CALIBRATE ARSENIC	CALIBRATE LEAD	CALIBRATE CALCIUM	CRDL LEAD	CRDL ARSENIC
HB-9	(20598180)	UJ	ALL J/UJ	REJECT		107J			
GP-2	(20598181)		ALL J/UJ	REJECT			169000J		
GP-8	(20598182)		ALL J/UJ	REJECT					
GP-5	(20598183)		ALL J/UJ	REJECT	6.9J				
GP-13	(20598184)		ALL J/UJ	REJECT	19.0J				
GP-16	(20598185)		ALL J/UJ	REJECT	20.3J				
GP-17	(20598186)		ALL J/UJ	REJECT	12.6J				
GP-25	(20598187)		ALL J/UJ	REJECT					REJECT
T-1	(21598005)		ALL J/UJ	UJ		641J	44400J		
T-2	(21598006)		ALL J/UJ	3.9J					REJECT
T-4	(21598007)		ALL J/UJ	UJ					REJECT
T-5	(21598008)		ALL J/UJ	UJ				REJECT	REJECT
T-6	(21598009)		ALL J/UJ	UJ				REJECT	
MW-1	(21998023)			REJECT					REJECT
MW-2	(21998024)			REJECT					REJECT
MW-3	(21998025)			REJECT					REJECT
MW-4	(21998026)			REJECT					REJECT
MW-5	(21998027)			REJECT					

SUMMARY OF QUALIFIED DATA

FORMER BROWN MANUFACTURING SITE — SAMPLED 7/20/98 thru 8/6/98

		CRDL CADMIUM	CRDL NICKEL	CRDL CHROMIUM	CRDL SELENIUM	CRDL ZINC	ICP ICS CADMIUM	SPIKES Cd,Zn	SPIKES SILVER	SPIKES Sb,Hg,Zn
HB-9	(20598180)	2.0J					2.0J		UJ	J/UJ
GP-2	(20598181)	1.7J					1.7J		UJ	J/UJ
GP-8	(20598182)	2.3J					2.3J		UJ	J/UJ
GP-5	(20598183)		13.9J						UJ	J/UJ
GP-13	(20598184)	2.0J					2.0J		UJ	J/UJ
GP-16	(20598185)						2.5J		UJ	J/UJ
GP-17	(20598186)	2.0J					2.0J		UJ	J/UJ
GP-25	(20598187)						2.7J		UJ	J/UJ
T-1	(21598005)								REJECT	J/UJ
T-2	(21598006)	1.5J	2.7J	3.7BJ			1.5J		REJECT	J/UJ
T-4	(21598007)	2.4J		8.2J			2.4J		REJECT	J/UJ
T-5	(21598008)	3.0J	15.5J		UJ		3.0J		REJECT	J/UJ
T-6	(21598009)	2.0J		12.1J	4.7J		2.0J		REJECT	J/UJ
MW-1	(21998023)				UJ			REJECT	UJ	UJ
MW-2	(21998024)				UJ	14.8J		REJECT	UJ	UJ
MW-3	(21998025)				UJ	UJ		REJECT	UJ	UJ
MW-4	(21998026)				UJ	UJ		REJECT	UJ	UJ
MW-5	(21998027)				UJ	UJ		REJECT	UJ	UJ

SUMMARY OF QUALIFIED DATA

FORMER BROWN MANUFACTURING SITE — SAMPLED 7/20/98 thru 8/6/98

		DUPLICATES	LCS Sb,Se	LCS Cd/Mn/Zn	SERIAL DILUTE Al / Fe
HB-9	(20598180)	SOIL J/UJ	UJ/J	J/J/J	J/J
GP-2	(20598181)	SOIL J/UJ	UJ/J	J/J/J	J/J
GP-8	(20598182)	SOIL J/UJ	UJ/J	J/J/J	J/J
GP-5	(20598183)	SOIL J/UJ	UJ/J	-/J/J	J/J
GP-13	(20598184)	SOIL J/UJ	UJ/J	J/J/J	J/J
GP-16	(20598185)	SOIL J/UJ	UJ/J	J/J/J	J/J
GP-17	(20598186)	SOIL J/UJ	UJ/J	J/J/J	J/J
GP-25	(20598187)	SOIL J/UJ	UJ/J	J/J/J	J/J
T-1	(21598005)	SOIL J/UJ	UJ/J	J/J/J	J/J
T-2	(21598006)	SOIL J/UJ	UJ/J	J/J/J	J/J
T-4	(21598007)	SOIL J/UJ	UJ/J	J/J/J	J/J
T-5	(21598008)	SOIL J/UJ	UJ/UJ	J/J/J	J/J
T-6	(21598009)	SOIL J/UJ	UJ/J	J/J/J	J/J
MW-1	(21998023)	GW J/UJ			
MW-2	(21998024)	GW J/UJ			
MW-3	(21998025)	GW J/UJ			
MW-4	(21998026)	GW J/UJ			
MW-5	(21998027)	GW J/UJ			

GW = cadmium, calcium, manganese, zinc

SOIL = arsenic, chromium, copper, lead, iron, manganese, nickel, potassium, selenium, sodium, thallium

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

HB-9TT

Lab Name: Upstate Laboratories, Inc Contract:

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH07

Matrix (soil/water): SOIL Lab Sample ID: 20598180

Level (low/med): LOW Date Received: 07/22/98

% Solids: 70.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6760		E J	P
7440-36-0	Antimony	4.3	U	N UJ	P
7440-38-2	Arsenic	21.5		* J	P
7440-39-3	Barium	456		J	P
7440-41-7	Beryllium	0.86	U	UJ	P
7440-43-9	Cadmium	2.0		N*	P
7440-70-2	Calcium	124000		E*	P
7440-47-3	Chromium	25.7		* J	P
7440-48-4	Cobalt	5.7	U	UJ	P
7440-50-8	Copper	46.6		* J	P
7439-89-6	Iron	15600		E* J	P
7439-92-1	Lead	107		*N J	P
7439-95-4	Magnesium	17100		J	P
7439-96-5	Manganese	309		* J	P
7439-97-6	Mercury	1.4	U	* UJ	CV
7440-02-0	Nickel	29.3		* J	P
7440-09-7	Potassium	920	B	* BJ	P
7782-49-2	Selenium	5.4		* J	P
7440-22-4	Silver	2.9	U	N UJ	P
7440-23-5	Sodium	422	B	* BJ	P
7440-28-0	Thallium	5.4		* J	P
7440-31-5	Tin				
7440-62-2	Vanadium	22.6		J	P
7440-66-6	Zinc	205		N* J	P
	Cyanide				

R JS

R

JJS

olor Before: BROWN Clarity Before: OPAQUE Texture: COARSE

olor After: YELLOW Clarity After: CLEAR Artifacts: NO

Comments:

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

GP-2TT

Lab Name: Upstate Laboratories, Inc Contract:

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH07

Matrix (soil/water): SOIL Lab Sample ID: 20598181

Level (low/med): LOW Date Received: 07/22/98

% Solids: 89.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6310		E J	P
7440-36-0	Antimony	3.4	U	N UJ	P
7440-38-2	Arsenic	7.2		* J	P
7440-39-3	Barium	170		J	P
7440-41-7	Beryllium	0.67	U	UJ	P
7440-43-9	Cadmium	~~1.7~~ 1.7 J		N*	P
7440-70-2	Calcium	169000		E* J	P
7440-47-3	Chromium	22.6		* J	P
7440-48-4	Cobalt	5.1	B	BJ	P
7440-50-8	Copper	35.8		* J	P
7439-89-6	Iron	11300		E* J	P
7439-92-1	Lead	243		*N J	P
7439-95-4	Magnesium	25700		J	P
7439-96-5	Manganese	253		* J	P
7439-97-6	Mercury	~~1.1~~	U	N	CV
7440-02-0	Nickel	21.7		* J	P
7440-09-7	Potassium	1160		* J	P
7782-49-2	Selenium	7.1		* J	P
7440-22-4	Silver	2.2	U	N UJ	P
7440-23-5	Sodium	225	U	* UJ	P
7440-28-0	Thallium	2.2	U	* UJ	P
7440-31-5	Tin				
7440-62-2	Vanadium	17.7		* J	P
7440-66-6	Zinc	246		* J	P
	Cyanide				

R JJS

R

JJS

Color Before: BROWN Clarity Before: OPAQUE Texture: COARSE

Color After: YELLOW Clarity After: CLEAR Artifacts: NO

Comments:

ENVIROFORMS/INORGANIC CLP

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

GP-5TT

Lab Name: Upstate Laboratories, Inc Contract:

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH07

Matrix (soil/water): SOIL Lab Sample ID: 20598183

Level (low/med): LOW Date Received: 07/22/98

% Solids: 86.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4540		J	P
7440-36-0	Antimony	3.5	U	UJ	P
7440-38-2	Arsenic	6.9		J	P
7440-39-3	Barium	68.0		J	P
7440-41-7	Beryllium	0.70	U	UJ	P
7440-43-9	Cadmium	1.2U ~~1.2~~	U	~~UJ~~	~~P~~ R JJJ
7440-70-2	Calcium	66800		J	P
7440-47-3	Chromium	9.2		J	P
7440-48-4	Cobalt	5.7	B	BJ	P
7440-50-8	Copper	43.3		J	P
7439-89-6	Iron	12700		J	P
7439-92-1	Lead	115		J	P
7439-95-4	Magnesium	19400		J	P
7439-96-5	Manganese	232		J	P
7439-97-6	Mercury	~~1.2~~	~~U~~	~~N~~	~~CV~~ R
7440-02-0	Nickel	13.9 J ~~13.9~~		~~J~~	~~P~~ R JJJ
7440-09-7	Potassium	792	B	J	P
7782-49-2	Selenium	5.8		J	P
7440-22-4	Silver	2.3	U	UJ	P
7440-23-5	Sodium	233	B	BJ	P
7440-28-0	Thallium	2.3	U	UJ	P
7440-31-5	Tin				
7440-62-2	Vanadium	17.2		J	P
7440-66-6	Zinc	112		J	P
	Cyanide				

JJJ

Color Before: BROWN Clarity Before: OPAQUE Texture: COARSE

Color After: YELLOW Clarity After: CLEAR Artifacts: NO

Comments:

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

GP-8TT

Lab Name: Upstate Laboratories, Inc Contract:

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH07

Matrix (soil/water): SOIL Lab Sample ID: 20598182

Level (low/med): LOW Date Received: 07/22/98

% Solids: 86.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8640		E J	P
7440-36-0	Antimony	3.5	U	N UJ	P
7440-38-2	Arsenic	22.4		* J	P
7440-39-3	Barium	201		J	P
7440-41-7	Beryllium	0.98	B	BJ	P
7440-43-9	Cadmium	2.3J ~~2.3~~		N*	P R UJ
7440-70-2	Calcium	42300		E*	P
7440-47-3	Chromium	16.6		* J	P
7440-48-4	Cobalt	7.4	B	BJ	P
7440-50-8	Copper	66.7		* J	P
7439-89-6	Iron	17500		E* J	P
7439-92-1	Lead	243		*N J	P
7439-95-4	Magnesium	6550		J	P
7439-96-5	Manganese	294		* J	P
7439-97-6	Mercury	~~1.2~~	U	N	CV R
7440-02-0	Nickel	21.0		* J	P
7440-09-7	Potassium	1060	B	* J	P
7782-49-2	Selenium	7.5		* J	P
7440-22-4	Silver	2.3	U	N UJ	P
7440-23-5	Sodium	249	B	* BJ	P
7440-28-0	Thallium	4.5		* J	P
7440-31-5	Tin				
7440-62-2	Vanadium	24.0		J	P
7440-66-6	Zinc	229		N* J	P
	Cyanide				

TB

Color Before: BROWN Clarity Before: OPAQUE Texture: COARSE

Color After: YELLOW Clarity After: CLEAR Artifacts: NO

Comments:

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

GP13TT

Lab Name: Upstate Laboratories, Inc Contract:

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH07

Matrix (soil/water): SOIL Lab Sample ID: 20598184

Level (low/med): LOW Date Received: 07/22/98

% Solids: 93.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7650		E J	P
7440-36-0	Antimony	3.2	U	N UJ	P
7440-38-2	Arsenic	19.0		* J	P
7440-39-3	Barium	258		J	P
7440-41-7	Beryllium	0.74	B	BJ	P
7440-43-9	Cadmium	2.0J ~~2.0~~		N*	P
7440-70-2	Calcium	107000		E*	P
7440-47-3	Chromium	17.8		* J	P
7440-48-4	Cobalt	6.8	B	BJ	P
7440-50-8	Copper	54.5		* J	P
7439-89-6	Iron	15900		E* J	P
7439-92-1	Lead	230		*N J	P
7439-95-4	Magnesium	13800		J	P
7439-96-5	Manganese	380		* J	P
7439-97-6	Mercury	~~1.1~~	U	N	~~CV~~
7440-02-0	Nickel	22.3		* J	P
7440-09-7	Potassium	1150		* J	P
7782-49-2	Selenium	5.0		* J	P
7440-22-4	Silver	2.2	U	N UJ	P
7440-23-5	Sodium	215	U	* J	P
7440-28-0	Thallium	2.2	U	* J	P
7440-31-5	Tin				
7440-62-2	Vanadium	19.2		J	P
7440-66-6	Zinc	184		N* J	P
	Cyanide				

R JB

R

JB

Color Before: BROWN Clarity Before: OPAQUE Texture: COARSE

Color After: YELLOW Clarity After: CLEAR Artifacts: NO

Comments:

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

GP16TT

Lab Name: Upstate Laboratories, Inc Contract:

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH07

Matrix (soil/water): SOIL Lab Sample ID: 20598185

Level (low/med): LOW Date Received: 07/22/98

% Solids: 94.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7810		E J	P
7440-36-0	Antimony	3.2	U	N UJ	P
7440-38-2	Arsenic	20.3		* J	P
7440-39-3	Barium	343		E J	P
7440-41-7	Beryllium	0.88	B	B J	P
7440-43-9	Cadmium	2.5		N* J	P
7440-70-2	Calcium	104000		E	P
7440-47-3	Chromium	22.1		* J	P
7440-48-4	Cobalt	7.2	B	B J	P
7440-50-8	Copper	87.8		* J	P
7439-89-6	Iron	22400		E* J	P
7439-92-1	Lead	320		*N J	P
7439-95-4	Magnesium	16600		J	P
7439-96-5	Manganese	359		* J	P
7439-97-6	Mercury	~~1.1~~	U	N	CV
7440-02-0	Nickel	22.3		* J	P
7440-09-7	Potassium	1330		* J	P
7782-49-2	Selenium	8.1		* J	P
7440-22-4	Silver	2.1	U	N UJ	P
7440-23-5	Sodium	238	B	* BJ	P
7440-28-0	Thallium	2.1	U	* UJ	P
7440-31-5	Tin				
7440-62-2	Vanadium	21.7		J	P
7440-66-6	Zinc	323		N* J	P
	Cyanide				

R

JB

Color Before: BROWN Clarity Before: OPAQUE Texture: COARSE

Color After: YELLOW Clarity After: CLEAR Artifacts: NO

Comments:

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

GP17TT

Lab Name: Upstate Laboratories, Inc Contract:

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH07

Matrix (soil/water): SOIL Lab Sample ID: 20598186

Level (low/med): LOW Date Received: 07/22/98

% Solids: 78.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	10500		J	P
7440-36-0	Antimony	3.8	U	UJ	P
7440-38-2	Arsenic	12.6		J	P
7440-39-3	Barium	120		J	P
7440-41-7	Beryllium	1.0	B	BJ	P
7440-43-9	Cadmium	2.0J ~~2.0~~		J	P
7440-70-2	Calcium	13400		J	P
7440-47-3	Chromium	17.9		J	P
7440-48-4	Cobalt	10.3		J	P
7440-50-8	Copper	19.9		J	P
7439-89-6	Iron	19900		J	P
7439-92-1	Lead	48.1		J	P
7439-95-4	Magnesium	6240		J	P
7439-96-5	Manganese	450		J	P
7439-97-6	Mercury	1.3	U	UJ	CV
7440-02-0	Nickel	23.2		J	P
7440-09-7	Potassium	1210	B	BJ	P
7782-49-2	Selenium	5.2		J	P
7440-22-4	Silver	2.6	U	UJ	P
7440-23-5	Sodium	256	U	UJ	P
7440-28-0	Thallium	2.6	U	UJ	P
7440-31-5	Tin				
7440-62-2	Vanadium	19.3		J	P
7440-66-6	Zinc	58.4		J	P
	Cyanide				

RJB

JRB

Color Before: BROWN Clarity Before: OPAQUE Texture: COARSE

Color After: YELLOW Clarity After: CLEAR Artifacts: NO

Comments:

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

GP25TT

Lab Name: Upstate Laboratories, Inc Contract:

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH07

Matrix (soil/water): SOIL Lab Sample ID: 20598187

Level (low/med): LOW Date Received: 07/22/98

% Solids: 88.0

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	7230		E J	P	
7440-36-0	Antimony	3.4	U	N UJ	P	
7440-38-2	Arsenic	~~3.0~~	~~U~~	~~*~~	~~P~~	R
7440-39-3	Barium	2150		J	P	
7440-41-7	Beryllium	1.0	B	BJ	P	
7440-43-9	Cadmium	2.7		N* J	P	
7440-70-2	Calcium	34200		~~E*~~	P	
7440-47-3	Chromium	33.2		* J	P	
7440-48-4	Cobalt	6.2	B	BJ	P	
7440-50-8	Copper	99.5		* J	P	
7439-89-6	Iron	27300		E* J	P	
7439-92-1	Lead	2460		*N J	P	
7439-95-4	Magnesium	7310		J	P	
7439-96-5	Manganese	285		* J	P	
7439-97-6	Mercury	~~1.1~~	~~U~~	~~N~~	~~CV~~	R
7440-02-0	Nickel	426		* J	P	
7440-09-7	Potassium	1320		* J	P	
7782-49-2	Selenium	5.2		* J	P	
7440-22-4	Silver	2.3	U	N UJ	P	
7440-23-5	Sodium	227	U	* UJ	P	
7440-28-0	Thallium	2.3	U	* UJ	P	
7440-31-5	Tin					
7440-62-2	Vanadium	15.1		J	P	
7440-66-6	Zinc	234		N* J	P	
	Cyanide					

JBS

Color Before: BROWN Clarity Before: OPAQUE Texture: COARSE

Color After: YELLOW Clarity After: CLEAR Artifacts: NO

Comments:

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

TI-01T

Lab Name: Upstate Laboratories, Inc Contract:

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH07

Matrix (soil/water): SOIL Lab Sample ID: 21598005

Level (low/med): LOW Date Received: 07/31/98

% Solids: 57.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5940		E J	P
7440-36-0	Antimony	5.3	U	N UJ	P
7440-38-2	Arsenic	29.3		* J	P
7440-39-3	Barium	10300		J	P
7440-41-7	Beryllium	0.93		J	P
7440-43-9	Cadmium	14.7		* J	P
7440-70-2	Calcium	44400		E* J	P
7440-47-3	Chromium	156		* J	P
7440-48-4	Cobalt	6.1	B		P
7440-50-8	Copper	536		* J	P
7439-89-6	Iron	27700		E* J	P
7439-92-1	Lead	641		*N J	P
7439-95-4	Magnesium	8550		J	P
7439-96-5	Manganese	545		* J	P
7439-97-6	Mercury	1.8	U	N UJ	CV
7440-02-0	Nickel	342		* J	P
7440-09-7	Potassium	922	B	* J	P
7782-49-2	Selenium	13.5		* J	P
7440-22-4	Silver	~~1.8~~	U	N UJ	P
7440-23-5	Sodium	1220	B	* UJ	P
7440-28-0	Thallium	3.5	U	* UJ	P
7440-31-5	Tin				
7440-62-2	Vanadium	14.2		J	P
7440-66-6	Zinc	686		N* J	P
	Cyanide				

R

NB

Color Before: BROWN Clarity Before: OPAQUE Texture: COARSE

Color After: YELLOW Clarity After: CLEAR Artifacts: NO

Comments:

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

TI-02T

Lab Name: Upstate Laboratories, Inc Contract:

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH07

Matrix (soil/water): SOIL Lab Sample ID: 21598006

Level (low/med): LOW Date Received: 07/31/98

% Solids: 83.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2460		E J	P
7440-36-0	Antimony	1.8	U	UJ	P
7440-38-2	Arsenic	~~2.0~~		*	P R
7440-39-3	Barium	34.5	B	BJ	P
7440-41-7	Beryllium	0.36	U	UJ	P
7440-43-9	Cadmium	1.5 J ~~1.5~~		N*	P R JJ
7440-70-2	Calcium	80700		E*	P
7440-47-3	Chromium	2.2 J ~~2.7~~		*	P R JJ
7440-48-4	Cobalt	2.4	U	UJ	P
7440-50-8	Copper	5.0		* J	P
7439-89-6	Iron	3540		E* J	P
7439-92-1	Lead	31.2		*N J	P
7439-95-4	Magnesium	9630		J	P
7439-96-5	Manganese	82.4		* J	P
7439-97-6	Mercury	3.9		N J	CV
7440-02-0	Nickel	3.7 BJ ~~3.7~~	B	*	P R JJ
7440-09-7	Potassium	407	B	* J	P
7782-49-2	Selenium	3.0		* J	P
7440-22-4	Silver	~~1.2~~	U	UJ	P R
7440-23-5	Sodium	241	U	* UJ	P
7440-28-0	Thallium	2.4	U	* UJ	P
7440-31-5	Tin				
7440-62-2	Vanadium	4.5	B	BJ	P
7440-66-6	Zinc	29.3		N* J	P
	Cyanide				

JJS

Color Before: BROWN Clarity Before: OPAQUE Texture: COARSE

Color After: YELLOW Clarity After: CLEAR Artifacts: NO

Comments:

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

TI-04T

Lab Name: Upstate Laboratories, Inc Contract:

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH07

Matrix (soil/water): SOIL Lab Sample ID: 21598007

Level (low/med): LOW Date Received: 07/31/98

% Solids: 76.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5730		E J	P
7440-36-0	Antimony	2.0	U	N U J	P
7440-38-2	Arsenic	~~4.5~~		*	P R
7440-39-3	Barium	95.3		J	P
7440-41-7	Beryllium	0.39	U	U J	P
7440-43-9	Cadmium	2.4 J ~~2.4~~		N*	P R J
7440-70-2	Calcium	70700		E*	P
7440-47-3	Chromium	6.1		* J	P
7440-48-4	Cobalt	2.9	B	B J	P
7440-50-8	Copper	11.6		* J	P
7439-89-6	Iron	7650		E* J	P
7439-92-1	Lead	56.4		*N J	P
7439-95-4	Magnesium	11700		J	P
7439-96-5	Manganese	197		* J	P
7439-97-6	Mercury	1.3	U	N U J	CV
7440-02-0	Nickel	8.2 J ~~8.2~~		*	P R J
7440-09-7	Potassium	642	B	* J	P
7782-49-2	Selenium	5.4		* J	P
7440-22-4	Silver	~~1.3~~	U	N U J	P R
7440-23-5	Sodium	263	U	* U J	P
7440-28-0	Thallium	2.6	U	* U J	P
7440-31-5	Tin				
7440-62-2	Vanadium	7.7		J	P
7440-66-6	Zinc	74.0		N* J	P
	Cyanide				

J B J

Color Before: BROWN Clarity Before: OPAQUE Texture: COARSE

Color After: YELLOW Clarity After: CLEAR Artifacts: NO

Comments:

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

TI-05T

Lab Name: Upstate Laboratories, Inc Contract:

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH07

Matrix (soil/water): SOIL Lab Sample ID: 21598008

Level (low/med): LOW Date Received: 07/31/98

% Solids: 63.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4740		J	P
7440-36-0	Antimony	4.8	U	UJ	P
7440-38-2	Arsenic	~~6.0~~		*	~~P~~ R
7440-39-3	Barium	40.9	B	BJ	P
7440-41-7	Beryllium	0.95	U	UJ	P
7440-43-9	Cadmium	3.0J ~~3.0~~		*	~~P~~ R JJ
7440-70-2	Calcium	139000		~~E~~*	P
7440-47-3	Chromium	8.9		* J	P
7440-48-4	Cobalt	6.3	U	UJ	P
7440-50-8	Copper	19.3		* J	P
7439-89-6	Iron	12800		E* J	P
7439-92-1	Lead	~~9.4~~		*N	~~P~~ R
7439-95-4	Magnesium	17300		J	P
7439-96-5	Manganese	302		* J	P
7439-97-6	Mercury	1.6	U	N UJ	CV
7440-02-0	Nickel	15.5 ~~15.5~~		*	~~P~~ R JJ
7440-09-7	Potassium	890	B	* J	P
7782-49-2	Selenium	1.6	U	* UJ	P
7440-22-4	Silver	~~3.2~~	U	N UJ	~~P~~ R
7440-23-5	Sodium	317	U	* UJ	P
7440-28-0	Thallium	3.2	U	* UJ	P
7440-31-5	Tin				
7440-62-2	Vanadium	14.5	B	BJ	P
7440-66-6	Zinc	37.7		N* J	P
	Cyanide				

JJ

Color Before: BROWN Clarity Before: OPAQUE Texture: COARSE

Color After: YELLOW Clarity After: CLEAR Artifacts: NO

Comments:

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

TI-06T

Lab Name: Upstate Laboratories, Inc Contract:

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH07

Matrix (soil/water): SOIL Lab Sample ID: 21598009

Level (low/med): LOW Date Received: 07/31/98

% Solids: 68.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4560		~~E~~ J	P
7440-36-0	Antimony	4.4	~~U~~	~~N~~ UJ	P
7440-38-2	Arsenic	9.7		~~*~~ J	P
7440-39-3	Barium	56.4	~~B~~	~~B~~ J	P
7440-41-7	Beryllium	0.88	~~U~~	UJ	P
7440-43-9	Cadmium	~~2.0~~ 2.0 J		~~N*~~	~~P~~ R JJ3
7440-70-2	Calcium	54500		~~E*~~	P
7440-47-3	Chromium	8.6		~~*~~ J	P
7440-48-4	Cobalt	5.9	U	UJ	P
7440-50-8	Copper	11.7		~~*~~ J	P
7439-89-6	Iron	9210		~~E*~~ J	P
7439-92-1	Lead	~~6.8~~		~~*N~~	~~P~~ R
7439-95-4	Magnesium	9090		J	P
7439-96-5	Manganese	163		~~*~~ J	P
7439-97-6	Mercury	1.5	~~U~~	~~N~~ UJ	CV R JJ3
7440-02-0	Nickel	~~13.1~~ 12.1 J		~~*~~	~~P~~
7440-09-7	Potassium	562	B	~~*~~ J	P
7782-49-2	Selenium	4.7		~~*~~ J	P
7440-22-4	Silver	~~2.9~~	~~U~~	~~N~~ UJ	~~P~~ R
7440-23-5	Sodium	294	~~U~~	~~*~~ UJ	P
7440-28-0	Thallium	2.9	~~U~~	~~*~~ UJ	P
7440-31-5	Tin				
7440-62-2	Vanadium	14.2	~~B~~	BJ	P
7440-66-6	Zinc	52.9		~~N*~~ J	P
	Cyanide				

JB3

Color Before: BROWN Clarity Before: OPAQUE Texture: COARSE

Color After: YELLOW Clarity After: CLEAR Artifacts: NO

Comments:

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

MW-01D

Lab Name: Upstate Laboratories, Inc Contract:

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH07

Matrix (soil/water): WATER Lab Sample ID: 21998023

Level (low/med): LOW Date Received: 08/06/98

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	222		E	P	
7440-36-0	Antimony	15.0	U	UJ	P	
7440-38-2	Arsenic	~~10.0~~	U	*	P	R
7440-39-3	Barium	77.2	B		P	
7440-41-7	Beryllium	3.0	U		P	
7440-43-9	Cadmium	~~45.4~~		N*	P	R
7440-70-2	Calcium	66000		E* J	P	
7440-47-3	Chromium	5.0	U	*	P	
7440-48-4	Cobalt	20.0	U		P	
7440-50-8	Copper	10.0	U	*	P	
7439-89-6	Iron	60.0	U	E*	P	
7439-92-1	Lead	3.0	U	*N	P	
7439-95-4	Magnesium	20300			P	
7439-96-5	Manganese	15.5		* J	P	
7439-97-6	Mercury	~~0.20~~	U	N	CV	R
7440-02-0	Nickel	30.0	U	*	P	
7440-09-7	Potassium	3540	B	*	P	
7782-49-2	Selenium	5.0	U	* UJ	P	
7440-22-4	Silver	10 UJ ~~10.0~~	U	N	P	R JJ
7440-23-5	Sodium	26900		*	P	
7440-28-0	Thallium	10.0	U	*	P	
7440-31-5	Tin					
7440-62-2	Vanadium	30.0	U		P	
7440-66-6	Zinc	~~445~~		N*	P	R
	Cyanide					

Color Before: COLORLESS Clarity Before: CLEAR Texture: LIQ

Color After: COLORLESS Clarity After: CLEAR Artifacts: NO

Comments:

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

MW-02D

Lab Name: Upstate Laboratories, Inc Contract:

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH07

Matrix (soil/water): WATER Lab Sample ID: 21998024

Level (low/med): LOW Date Received: 08/06/98

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	143	B	E	P
7440-36-0	Antimony	15.0	U	*UJ	P
7440-38-2	Arsenic	~~10.0~~	U	*	P R
7440-39-3	Barium	50.0	U		P
7440-41-7	Beryllium	3.0	U		P
7440-43-9	Cadmium	~~5.0~~	U	N*	P R
7440-70-2	Calcium	44500		E* J	P
7440-47-3	Chromium	5.0	U	*	P
7440-48-4	Cobalt	20.0	U		P
7440-50-8	Copper	10.0	U	*	P
7439-89-6	Iron	60.0	U	E*	P
7439-92-1	Lead	3.0	U	*N	P
7439-95-4	Magnesium	10300			P
7439-96-5	Manganese	10.0	U	*UJ	P
7439-97-6	Mercury	~~0.20~~	U	N	CV R
7440-02-0	Nickel	30.0	U	*	P
7440-09-7	Potassium	1480	B	*	P
7782-49-2	Selenium	5.0	U	*UJ	P
7440-22-4	Silver	10UJ ~~10.0~~	U	N	P R JM
7440-23-5	Sodium	8070		*	P
7440-28-0	Thallium	10.0	U	*	P
7440-31-5	Tin				
7440-62-2	Vanadium	30.0	U		P
7440-66-6	Zinc	~~14.8~~	B	N* J	P R
	Cyanide				

Color Before: COLORLESS Clarity Before: CLEAR Texture: LIQ

Color After: COLORLESS Clarity After: CLEAR Artifacts: NO

Comments:

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

MW-03D

Lab Name: Upstate Laboratories, Inc Contract:

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH07

Matrix (soil/water): WATER Lab Sample ID: 21998025

Level (low/med): LOW Date Received: 08/06/98

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	139	B	E	P	
7440-36-0	Antimony	15.0	U	UJ	P	
7440-38-2	Arsenic	~~10.0~~	U	*	P	R
7440-39-3	Barium	201			P	
7440-41-7	Beryllium	3.0	U		P	
7440-43-9	Cadmium	~~5.0~~	U	N*	P	R
7440-70-2	Calcium	81500		E* J	P	
7440-47-3	Chromium	5.0	U	*	P	
7440-48-4	Cobalt	20.0	U		P	
7440-50-8	Copper	10.0	U	*	P	
7439-89-6	Iron	60.0	U	E*	P	
7439-92-1	Lead	3.0	U	*N	P	
7439-95-4	Magnesium	20500			P	
7439-96-5	Manganese	216		* J	P	
7439-97-6	Mercury	~~0.20~~	U	N	CV	R
7440-02-0	Nickel	30.0	U	*	P	
7440-09-7	Potassium	11400		*	P	
7782-49-2	Selenium	5.0	U	* UJ	P	
7440-22-4	Silver	10 UJ ~~10.0~~	U	N	P	R JJS
7440-23-5	Sodium	44700		*	P	
7440-28-0	Thallium	10.0	U	*	P	
7440-31-5	Tin					
7440-62-2	Vanadium	30.0	U		P	
7440-66-6	Zinc	~~10.0~~	U	* UJ	P	R
	Cyanide					

Color Before: COLORLESS Clarity Before: CLEAR Texture: LIQ

Color After: COLORLESS Clarity After: CLEAR Artifacts: NO

Comments:

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

MW-04D

Lab Name: Upstate Laboratories, Inc Contract:

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH07

Matrix (soil/water): WATER Lab Sample ID: 21998026

Level (low/med): LOW Date Received: 08/06/98

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	169	B	E	P
7440-36-0	Antimony	15.0	U	N	P
7440-38-2	Arsenic	~~10.0~~	~~U~~	~~*~~	~~P~~ R
7440-39-3	Barium	491			P
7440-41-7	Beryllium	3.0	U		P
7440-43-9	Cadmium	~~5.0~~	~~U~~	~~N*~~	~~P~~ R
7440-70-2	Calcium	147000		~~E*~~ J	P
7440-47-3	Chromium	5.0	U	*	P
7440-48-4	Cobalt	20.0	U		P
7440-50-8	Copper	10.0	U	*	P
7439-89-6	Iron	60.0	U	E*	P
7439-92-1	Lead	3.0	U	*N	P
7439-95-4	Magnesium	23700			P
7439-96-5	Manganese	10.0	~~U~~	* UJ	P
7439-97-6	Mercury	~~0.20~~	~~U~~	~~N~~	~~CV~~ R
7440-02-0	Nickel	30.0	U	*	P
7440-09-7	Potassium	7510		*	P
7782-49-2	Selenium	5.0	~~U~~	~~*~~ UJ	P
7440-22-4	Silver	10 UJ ~~10.0~~	~~U~~	~~N~~	~~P~~ R JB
7440-23-5	Sodium	36400		*	P
7440-28-0	Thallium	10.0	U	*	P
7440-31-5	Tin				
7440-62-2	Vanadium	30.0	U		P
7440-66-6	Zinc	~~10.0~~	~~U~~	~~N*~~ UJ	~~P~~ R
	Cyanide				

olor Before: COLORLESS Clarity Before: CLEAR Texture: LIQ

olor After: COLORLESS Clarity After: CLEAR Artifacts: NO

Comments:

ENVIROFORMS/INORGANIC CLP

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

MW-05D

Lab Name: Upstate Laboratories, Inc Contract:

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH07

Matrix (soil/water): WATER Lab Sample ID: 21998027

Level (low/med): LOW Date Received: 08/06/98

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	147	B	E	P
7440-36-0	Antimony	15.0	U	* UJ	P
7440-38-2	Arsenic	10.9		*	P
7440-39-3	Barium	279			P
7440-41-7	Beryllium	3.0	U		P
7440-43-9	Cadmium	~~5.0~~	U	N*	P
7440-70-2	Calcium	114000		E* J	P
7440-47-3	Chromium	5.0	U	*	P
7440-48-4	Cobalt	20.0	U		P
7440-50-8	Copper	10.0	U	*	P
7439-89-6	Iron	60.0	U	E*	P
7439-92-1	Lead	3.0	U	* N	P
7439-95-4	Magnesium	23800			P
7439-96-5	Manganese	35.3		* J	P
7439-97-6	Mercury	~~0.20~~	U	N	CV
7440-02-0	Nickel	30.0	U	*	P
7440-09-7	Potassium	10400		*	P
7782-49-2	Selenium	5.0	U	* UJ	P
7440-22-4	Silver	10 UJ ~~10.0~~	U	N	P
7440-23-5	Sodium	59100		*	P
7440-28-0	Thallium	10.0	U	*	P
7440-31-5	Tin				
7440-62-2	Vanadium				
7440-66-6	Zinc	~~10.0~~	U	N* UJ	P
	Cyanide				

R

R

R JW

R

Color Before: COLORLESS Clarity Before: CLEAR Texture: LIQ

Color After: COLORLESS Clarity After: CLEAR Artifacts: NO

Comments:

APPENDIX C

PHASE IIA ANALYTICAL DATA

DATA USABILITY SUMMARY REPORT

for

BEARDSLEY DESIGN ASSOCIATES

431 EAST FAYETTE STREET

EAST SYRACUSE, NY 13202

FORMER BROWN MANUFACTURING SITE
SDG CH13
Sampled 11/16/99

AQUEOUS/OIL SAMPLES for VOLATILE ORGANICS

T8-oil (32199029)

DATA ASSESSMENT

A volatile organics data package containing analytical results for one oil sample that was collected with groundwater was received from Beardsley Design Associates on 16Nov01. The ASP deliverables package included formal reports, raw data, the necessary QC, and supporting information. The samples, taken from the Former Brown Manufacturing site, were identified by Chain of Custody documents and trackable through the work of Upstate Laboratories, Inc., the laboratory contracted for analysis. Analyses, performed according to SW-846 Method 8260, addressed Target Compound List analytes. Laboratory data was evaluated according to the Quality Assurance / Quality Control Requirements of the New York State Department of Environmental Conservation's Analytical Services Protocol (ASP), September 1989, Rev. 6/2000. When ASP protocol was not followed, the current EPA Region II Functional Guidelines (SPO NO. HW-6, Rev. #8, Jan. 1992, CLP Organics Data Review and Preliminary Review), was used as a technical reference.

The concentration of methylene chloride that was detected in T8-oil is assumed to represent a laboratory or program artifact. The result has been qualified as an estimation. Because methylene chloride was not detected in the associated method blank, the result cannot be removed from Form 1.

CORRECTNESS AND USABILITY

MS/MSD samples were not included with the analysis of T8-oil. This omission makes it impossible to evaluated matrix effects that might bias measurements. Because the matrix of T8-oil would be expected to cause interferences, results obtained from this sample have been qualified as estimations.

The identifications of ethylbenzene and xylene in T8-oil could not be confirmed based on the reference mass spectra included in the raw data. Ethylbenzene and xylene should be considered undetected in the affected sample.

Library searches were performed to identify each reported Tentatively Identified Compound (TIC) that was present in T8-oil. When the supporting mass spectra failed to provide a conclusive identification, or when a more definitive identification was possible, Form 1E was edited.

Reported data should be considered technically usable in its present form. Reported concentrations that are felt to provide a usable estimation of the conditions being measured have been flagged "J" or "UJ". Estimated data should be used with caution. A detailed discussion of the review process follows.

Two facts should be considered by all data users. No compound

concentration, even if it has passed all QC testing, can be guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error. Secondly. DATAVAL, Inc. guarantees the quality of this data assessment. However, DATAVAL, Inc. does not warrant any interpretation or utilization of this data by a third party.

Reviewer's signature: James B. Baldwin Date: 1/21/02

SAMPLE HISTORY

Analyte concentrations can deteriorate with time due to chemical instability, bacterial degradation or volatility. Samples that are not properly preserved or are not analyzed within established holding times may no longer be considered representative. Holding times are calculated from the time of sample collection. Samples must remain chilled to 4°C from the time of collection. VOA analyses must be completed within 14 days of receipt. Each sample delivery group, containing up to 20 samples, should include a field duplicate, a matrix spike, matrix spike duplicate, and a rinsate blank.

This sample delivery group, which included one sample of oil that was collected with groundwater, was collected from the Former Brown Manufacturing site on 16Nov99. The sample was delivered to the laboratory, after hours, on the day of collection. The cooler arrived intact, with custody seals in place. A cooler temperature of 6.9°C was recorded by the laboratory at the time of receipt. T8-oil was analyzed as a medium level oil on 18Nov99, satisfying program holding time limitations.

BLANKS

Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Method blanks are analyzed to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank. Any sample concentration less than 5 times the level determined in a blank must be qualified. The qualification criteria is extended to ten times the concentration observed in blanks for common laboratory artifacts. These include acetone, methylene chloride and 2-butanone. Chloroform is also frequently present as a laboratory artifact.

One method blank was analyzed with this group of samples. This blank was free of targeted analyte contamination. Methylene chloride was detected in T8-oil. This result has been flagged as an estimation because methylene chloride is known to be a prevalent laboratory artifact. The methylene chloride was not removed from Form 1 because a similar artifact was not present in the associated blank.

MS TUNING

Mass spectrometer tuning and performance criteria are established to ensure sufficient mass resolution and sensitivity to accurately detect and identify targeted analytes. Verification is accomplished using a certified standard.

An Instrument Performance Check Standard of BFB was analyzed prior to each analytical sequence and during every 12 hour period of instrument operation. An Instrument Performance Check Form is present for each BFB evaluation. The BFB tunes associated with this group of samples satisfied the program acceptance criteria.

CALIBRATION

Requirements for instrument calibration are established to ensure that laboratory equipment is capable of producing accurate, quantitative data. Initial calibrations demonstrate a range through which measurements may be made. Continuing calibration standards verify instrument stability.

The required levels of initial calibration were performed on 11Nov99. This sequence of calibration standards included analyte concentrations of 10, 20, 50, 100 and 200 µg/l. With one exception, the required levels of instrument response and an acceptable degree of linearity was demonstrated for each targeted analyte. Although bromomethane standards displayed poor linearity, the required minimum level of response was achieved by each standard. Although errors might be expected in measurements of bromomethane, it can be assumed this analyte would be detected if present in samples. Because bromomethane was not detected, data has been left unqualified.

Continuing calibration verification standards were analyzed prior to each twelve hour period of instrument operation. These checks demonstrated an acceptable level of instrument stability.

SURROGATES

Each sample, blank and standard is spiked with surrogate compounds prior to analysis. The structures of surrogates are similar to analytes of interest, but they are not normally found in environmental samples. Surrogate recoveries are monitored to evaluate overall laboratory performance and the efficiency of laboratory technique.

Surrogate standard summary reports were properly prepared; the correct acceptance criteria applied. The surrogate standard recoveries reported from this group of samples satisfied the program acceptance criteria.

INTERNAL STANDARDS

Internal standards are added to each sample, blank and standard just prior to injection. Analyte concentrations are calculated relative to the response of a specific internal standard. Internal standard performance criteria ensure that GC/MS sensitivity and response are stable during the analysis of each sample. The area of internal standard peaks may not vary by more than a factor of two. When compared to the preceding calibration check, retention times may not vary by more than 30 seconds.

The laboratory correctly calculated control limits for internal standard response and retention times. The response and retention time of each internal standard that was added to this group of samples fell within the calculated limits of acceptance.

MATRIX SPIKES / MATRIX SPIKE DUPLICATES / MATRIX SPIKED BLANKS

Matrix spiking refers to the addition of known analyte concentra-

tions to a sample, prior to analysis. Analyte recoveries provide an indication of laboratory accuracy. The analysis of a duplicate spiked aliquot provides a measurement of precision.

Recoveries were not reported for MS/MSD samples. This omission makes it impossible to evaluate the presence of interferences that might bias the analysis of T8-oil. Because an oily sample would be expected to generate matrix effects, data reported from T8-oil has been qualified as an estimation.

DUPLICATES

Two aliquots of the same sample are processed separately through all aspects of sample preparation and analysis. Results produced by the analysis of this pair of samples are compared as a measurement of precision. Poor precision may be indicative of sample non-homogeneity, method defects or poor laboratory technique.

Field split duplicates were not included in this group of samples.

REPORTED ANALYTES

A formal report was provided for T8-oil. The data package also included total ion chromatograms and raw instrument printouts. Laboratory results have been adjusted to reflect sample size and moisture content. Reference mass spectra were provided to confirm the identification of each targeted analyte that was detected in T8-oil. It is noted that the identifications of ethylbenzene and xylene could not be conclusively confirmed using the mass spectra references supplied by the laboratory. Ethylbenzene and xylene should be considered undetected in T8-oil.

Tentatively Identified Compounds (TIC) were reported from T8-oil. Frequently, these identifications were not soundly supported by the library searches contained in the raw data. Where appropriate, Form 1E has been corrected.

SUMMARY OF QUALIFIED DATA

FORMER BROWN MANUFACTURING SITE SAMPLED 11/16/99

		BLANKS METH CHLORIDE	SPECTRA ID TARGETS*	SPECTRA ID TIC	MS/MSD
T8-oil	(32199029)	9700 J	34000 U	EDIT	ALL J/UJ

TARGETS = ethylbenzene, xylene

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

T8OIL

Lab Name: UPSTATE LABS INC. Contract: C&H ENG.-

Lab Code: 10170 Case No.: 01 SAS No.: SDG No.: CH13

Matrix: (soil/water) OIL Lab Sample ID: 32199029

Sample wt/vol: 1.0 (g/ml) G Lab File ID: D1268.D

Level: (low/med) MED Date Received: 11/16/99

% Moisture: not dec. 1 Date Analyzed: 11/18/99

GC Column: RTX VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 15 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	chloromethane	34000	U
75-01-4	vinyl chloride	34000	U
74-83-9	bromomethane	34000	U
75-00-3	chloroethane	34000	U
67-64-1	acetone	34000	U
75-35-4	1,1-dichloroethene	34000	U
75-15-0	carbon disulfide	34000	U
75-09-2	methylene chloride	9700	J
156-60-5	trans-1,2-dichloroethene	34000	U
75-34-33	1,1-dichloroethane	34000	U
156-59-2	cis-1,2-dichloroethene	34000	U
67-66-3	chloroform	34000	U
56-23-5	carbon tetrachloride	34000	U
107-06-2	1,2-dichloroethane	34000	U
78-93-2	2-butanone	34000	U
71-55-6	1,1,1-trichloroethane	34000	U
71-43-2	benzene	34000	U
79-01-6	trichloroethene	34000	U
78-87-5	1,2-dichloropropane	34000	U
75-27-4	bromodichloromethane	34000	U
10061-1-5	cis-1,3-dichloropropene	34000	U
10061-2-6	trans-1,3-dichloropropene	34000	U
79-00-5	1,1,2-trichloroethane	34000	U
124-48-1	dibromochloromethane	34000	U
75-25-2	bromoform	34000	U
108-10-1	4-methyl-2-pentanone	34000	U
108-88-3	toluene	34000	U
591-78-6	2-hexanone	34000	U
127-18-4	tetrachloroethene	34000	U
108-90-7	chlorobenzene	34000	U
100-41-4	ethylbenzene	~~16000~~ 34000	~~J~~ U J
	m,p-xylene	~~16000~~ 34000	~~J~~ U J
95-47-6	o-xylene	34000	U
100-42-5	styrene	34000	U
79-34-5	1,1,2,2-tetrachloroethane	34000	U

U J

U J

U J

JBD

DATA USABILITY SUMMARY REPORT

for

BEARDSLEY DESIGN ASSOCIATES

431 EAST FAYETTE STREET

EAST SYRACUSE, NY 13202

FORMER BROWN MANUFACTURING SITE
SDG CH13
Sampled 11/15/99, 11/16/99, 11/18/99

SOILS and AQUEOUS SAMPLES for SEMIVOLATILE ORGANICS

T7-2	(32099002)	T7-4	(32099004)	T8-OIL	(32199029)
T8-2	(32199030)	T8-2dup	(32199031)	T9-1	(32199032)
T12-1	(32399037)	T13-1	(32399040)	T14-1	(32399042)
T15-1	(32399044)				

DATA ASSESSMENT

A semivolatile organics data package containing analytical results for nine soils and one oil sample that was collected with groundwater, was received from Beardsley Design Associates on 16Nov01. The ASP deliverables package included formal reports, raw data, the necessary QC, and supporting information. The samples, taken from the Former Brown Manufacturing site, were identified by Chain of Custody documents and trackable through the work of Upstate Laboratories, Inc., the laboratory contracted for analysis. Analyses, performed according to SW-846 Method 8270, addressed Target Compound List analytes. Laboratory data was evaluated according to the Quality Assurance / Quality Control Requirements of the New York State Department of Environmental Conservation's Analytical Services Protocol (ASP), September 1989, Rev. 6/2000. When ASP protocol was not followed, the current EPA Region II Functional Guidelines (SPO NO. HW-6, Rev. #8, Jan. 1992, CLP Organics Data Review and Preliminary Review), was used as a technical reference.

Traces of bis(2-ethylhexyl)phthalate were detected in T7-4, T9-1 and T15-1. When present in samples, this phthalate is assumed to represent a laboratory artifact. As such, bis(2-ethylhexyl)-phthalate should be interpreted as undetected in program samples.

Aldol Condensation products were reported as Tentatively Identified Compounds (TIC) throughout this group of samples. When present, they have been removed from Form 1F. A large number of additional unidentified TICs were present in each method blank. Because of their number, it must be assumed that some of the TICs reported from samples also represent laboratory artifacts.

Internal standards #5 and/or #6 produced a low instrument response in samples T7-2, T8-2 and T8-2dup. Analytes dependant upon the response of these internal standards have been qualified as estimations in the affected samples.

CORRECTNESS AND USABILITY

The identifications of naphthalene, benzo[a]anthracene, pyrene, bis(2-ethylhexyl)phthalate, acenaphthalene and phenanthrene from T7-4, T8-2, T8-2dup, 9-1 or T15-1 were not conclusive, based on the mass spectra references provided by the laboratory. Where affected, these analytes should be considered undetected.

The Tentatively Identified Compounds (TIC) reported from every sample except the T12-1 included identifications that were not conclusively supported by the library searches supplied by the laboratory. The affected identifications have been edited on Form 1F.

Reported data should be considered technically defensible in its present form. Reported concentrations that are felt to provide a usable estimation of the conditions being measured have been

flagged "J" or "UJ". Data that is felt to be unreliable has been identified with a single red line and flagged "R". Rejected data should not be included in data tables. Estimated data should be used with caution. A detailed discussion of the review process follows.

Two facts should be considered by all data users. No compound concentration, even if it has passed all QC testing, can be guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error. Secondly. DATAVAL, Inc. guarantees the quality of this data assessment. However, DATAVAL, Inc. does not warrant any interpretation or utilization of this data by a third party.

Reviewer's signature: James B. Baldwin Date: 1/21/02

SAMPLE HISTORY

Analyte concentrations can deteriorate with time due to chemical instability, bacterial degradation or volatility. Samples that are not properly preserved, or are not analyzed within established holding times, may no longer be considered representative. Holding times are calculated from the time of sample collection. Samples must remain chilled to 4°C from the time of collection. Aqueous samples must be extracted within 7 days. The extraction of soil samples must begin within 14 days of collection. Analyses must be completed within 40 days of extraction. Each sample delivery group, containing up to 20 samples, should include a field duplicate, a matrix spike, matrix spike duplicate, and a rinsate blank.

This sample delivery group, which included nine soils and one sample of oil that was collected with groundwater, was collected from the Former Brown Manufacturing site between 15Nov99 and 18Nov99. Two samples collected on 15Nov99, four collected on 16Nov99 and four collected on 18Nov99 were delivered to the laboratory, after hours, on the day they were sampled. Each cooler of samples arrived intact, with custody seals in place. A temperature of 6.9°C was obtained from each sample cooler at the time of laboratory receipt.

Sample extractions were performed on 18Nov99, 19Nov99 and 22Nov99. Analyses, including reruns, were completed by 17Dec99. Program holding time limitations were satisfied.

BLANKS

Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Method blanks are analyzed to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank. Any sample concentration less than 5 times the level determined in a blank must be qualified. The qualification criteria is extended to ten times the concentration observed in blanks for common laboratory artifacts. These include phthalate esters.

Three method blanks were analyzed with this group of samples. Traces of bis(2-ethylhexyl)phthalate were detected in two blanks. When present in samples, similar phthalates are assumed to represent laboratory artifacts. Phthalates should be considered undetected in program samples. Detection limits equaling CRDL or the reported concentration, whichever is greater, should be assumed.

Aldol Condensation products (4-methyl-3-penten-2-one, 4-hydroxy-4-methyl-2-pentanone) and a large number of unidentified TIC's were also present in blanks. When present in samples, aldol products have been removed from Form 1F. Because of the large number of TICS present in blanks, it must be assumed that some of the TICs present in samples also represent laboratory artifacts.

MS TUNING
Mass spectrometer tuning and performance criteria are established to ensure sufficient mass resolution and sensitivity to accurately detect and identify targeted analytes. Verification is accomplished using a certified standard.

An Instrument Performance Check Standard of DFTPP was analyzed prior to each analytical sequence and during every 12 hour period of instrument operation. An Instrument Performance Check Form is present for each DFTPP evaluation. The DFTPP tunes associated with this group of samples satisfied the program acceptance criteria.

CALIBRATION
Requirements for instrument calibration are established to ensure that laboratory equipment is capable of producing accurate, quantitative data. Initial calibrations demonstrate a range through which measurements may be made. Continuing calibration standards verify instrument stability.

The required levels of initial calibration were performed on 09Dec99 and 15Dec99. Standards of 20, 50, 80, 120 and 160 ng were included. The calibration curves for each analyte demonstrated the required levels of instrument response and an acceptable degree of linearity. It is noted that during the 09Dec99 initial calibration, pentachlorophenol standards demonstrated poor linearity. Each calibration standard did, however, generate the minimum required levels of instrument response. Although errors might be expected in the calculation of pentachlorophenol concentrations, this analyte would be detected if present in samples. Because pentachlorophenol was not detected, data has been left unqualified.

A continuing calibration verification was completed prior to each twelve hour period of instrument operation. These checks demonstrated an acceptable level of instrument stability.

SURROGATES
Each sample, blank and standard is spiked with surrogate compounds prior to analysis. The structures of surrogates are similar to analytes of interest, but they are not normally found in environmental samples. Surrogate recoveries are monitored to evaluate overall laboratory performance and the efficiency of laboratory technique.

Surrogate Summary Sheets were properly prepared; the correct acceptance criteria applied. The surrogate additions to T9-1, T8-2, T8-2-dup, T-7-4 and T14-1 were recovered successfully. No more than one surrogate of either fraction, acid or base/neutral, produced an unacceptable recovery.

The surrogate additions to T8-oil, T7-2, T13-1, T12-1 and T15-1 were completely unrecovered. Poor recoveries were also reported for the additions to T7-2dl. In each case, however, these samples were diluted between 1:10 and 1:100 after the surrogates were

added. Because the observed surrogate performance may be attributed to sample dilutions, data has been left unqualified.

INTERNAL STANDARDS
Internal standards are added to each sample, blank and standard just prior to injection. Analyte concentrations are calculated relative to the response of a specific internal standard. Internal standard performance criteria ensure that GC/MS sensitivity and response are stable during the analysis of each sample. The area of internal standard peaks may not vary by more than a factor of two. When compared to the preceding calibration check, retention times may not vary by more than 30 seconds.

The laboratory correctly calculated control limits for internal standard response and retention times. The response produced by the chrysene-d12 additions to T7-2 and T7-2-d1, and the perylene-d12 additions to T-2, T8-2DP, T7-2 and T7-2DL failed to satisfy the calculated limits of acceptance. Analytes dependant upon the response of these internal standards have been qualified as estimations in the affected samples.

MATRIX SPIKES / MATRIX SPIKE DUPLICATES / MATRIX SPIKED BLANKS
Matrix spiking refers to the addition of known analyte concentrations to a sample, prior to analysis. Analyte recoveries provide an indication of laboratory accuracy. The analysis of a duplicate spiked aliquot provides a measurement of precision.

Sample T8-2 was selected for matrix spiking. The additions to two portions of this sample produced unacceptable recoveries of 2,4-dinitrotoluene (90%,90%) and 4-nitrophenol (193%, 166%). Although the reported recoveries of 1,4-dichlorobenzene were acceptable, the measurements indicated poor precision. This performance alone, does not warrant data qualifications.

DUPLICATES
Two aliquots of the same sample are processed separately through all aspects of sample preparation and analysis. Results produced by the analysis of this pair of samples are compared as a measurement of precision. Poor precision, may be indicative of sample non-homogeneity, method defects, or poor laboratory technique.

Field split duplicates of D8-2 were included in this group of samples. The low analyte concentrations detected in this pair of samples demonstrated an acceptable level of reproducibility.

	T8-2	T8-2dup
2-Methylnaphthalene	1200	1200
Fluorene	170	
Phenanthrene	670	

SAMPLE INFORMATION
Formal reports were provided for each sample. The data package also included total ion chromatograms and raw instrument printouts.

Sample chromatograms were properly attenuated. Mass spectra references were provided to confirm the identification of each reported analyte. When the laboratory generated references failed to provide a conclusive identification, Form 1 was edited to indicate a negative result. Questionable identifications are tabulated below.

SAMPLE	QUESTIONABLE IDENTIFICATIONS
T15-1	benzo[a]anthracene, naphthalene, pyrene
T9-1	bis(2-ethylhexyl)phthalate
T8-2	naphthalene, acenaphthene
T8-2dup	naphthalene, phenanthrene
T7-4	bis(2-ethylhexyl)phthalate

In several cases, TIC identifications were not conclusively supported by the library searches included in the raw data. In such cases, Form 1F has been edited to indicate an appropriate identification. The Form 1F of every sample except T12-1 has been corrected.

SUMMARY OF QUALIFIED DATA

FORMER BROWN MANUFACTURING SITE — SAMPLED 11/15/99 thru 11/18/99

		BLANK TIC	BLANK PHTHALATE	INTERNAL STD	SPECTRA ID TARGETS	SPECTRA ID TIC
T7-2	(32099002)	REMOVE		IS5,6 J/UJ		EDIT
T7-4	(32099004)	REMOVE	390U		MS2 U	EDIT
T8-OIL	(32199029)					EDIT
T8-2	(32199030)	REMOVE		IS6 J/UJ	MS3,4 U	EDIT
T8-2dup	(32199031)	REMOVE		IS6 J/UJ	MS3,5 U	EDIT
T9-1	(32199032)	REMOVE	420U		MS2 U	EDIT
T12-1	(32399037)					EDIT
T13-1	(32399040)					EDIT
T14-1	(32399042)	REMOVE				EDIT
T15-1	(32399044)		40000U		MS1,3 U	EDIT

IS5 = pyrene, butylbenzylhthalate, 3,3'dichlorobenzidine, benzo[a]anthracene, chrysene, bis(2-ethylhexyl)phthalate,
IS6 = di-n-octylphthalae, benzo[b]fluoranthene, benzo[k]fluoranthene, benzo[a]pyrene, indeno[1,2,3-cd]pyrene, dibenz[a,h]anthracene, benzo[g,h,i]perylene
MS1 = benzo[a]anthracene, pyrene
MS2 = bis(2-ethylhexyl)phthalate
MS3 = naphthalene
MS4 = acenaphthalene
MS5 = phenanthrene

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T7-2

Lab Name: Upstate Laboratories, Inc. Contract: C&H

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH13

Matrix: (soil/water) SOIL Lab Sample ID: 32099002

Sample wt/vol: 30.1 (g/ml) G Lab File ID: B7606.D

Level: (low/med) LOW Date Received: 11/15/99

% Moisture: 16 decanted:(Y/N) N Date Extracted: 11/18/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/16/99

Injection Volume: 2.0 (uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
86-30-6	N-nitrosodimethylamine	4000	U	
111-44-4	bis(2-Chloroethyl)ether	4000	U	
108-95-2	Phenol	4000	U	
95-57-8	2-Chlorophenol	4000	U	
541-73-1	1,3-Dichlorobenzene	4000	U	
106-46-7	1,4-Dichlorobenzene	4000	U	
95-50-1	1,2-Dichlorobenzene	4000	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	4000	U	
95-48-7	2-Methylphenol	4000	U	
67-72-1	Hexachloroethane	4000	U	
621-64-7	N-Nitroso-di-n-propylamine	4000	U	
106-44-5	(3+4)-Methylphenol	4000	U	
98-95-3	Nitrobenzene	4000	U	
78-59-1	Isophorone	4000	U	
88-75-5	2-Nitrophenol	4000	U	
105-67-9	2,4-Dimethylphenol	4000	U	
111-91-1	bis(2-Chloroethoxy)methane	4000	U	
120-83-2	2,4-Dichlorophenol	4000	U	
120-82-1	1,2,4-Trichlorobenzene	4000	U	
91-20-3	Naphthalene	4600	D	✓
106-47-8	4-Chloroaniline	4000	U	
87-68-3	Hexachlorobutadiene	4000	U	
59-50-7	4-Chloro-3-methylphenol	4000	U	
91-57-6	2-Methylnaphthalene	2200	JD	✓
77-47-4	Hexachlorocyclopentadiene	4000	U	
88-06-2	2,4,6-Trichlorophenol	4000	U	
95-95-4	2,4,5-Trichlorophenol	40000	U	
91-58-7	2-Chloronaphthalene	4000	U	
88-74-4	2-Nitroaniline	40000	U	
208-96-8	Acenaphthylene	1200	JD	✓
131-11-3	Dimethyl phthalate	4000	U	
606-20-2	2,6-Dinitrotoluene	4000	U	
83-32-9	Acenaphthene	4600	D	✓
99-09-2	3-Nitroaniline	40000	U	
51-28-5	2,4-Dinitrophenol	40000	U	
132-64-9	Dibenzofuran	3600	JD	✓
121-14-2	2,4-Dinitrotoluene	4000	U	

JPS

0000267

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T7-2

Lab Name: Upstate Laboratories, Inc. Contract: C&H

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH13

Matrix: (soil/water) SOIL Lab Sample ID: 32099002

Sample wt/vol: 30.1 (g/ml) G Lab File ID: B7606.D

Level: (low/med) LOW Date Received: 11/15/99

% Moisture: 16 decanted:(Y/N) N Date Extracted: 11/18/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/16/99

Injection Volume: 2.0 (uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG		Q
100-02-7	4-Nitrophenol		40000	U
86-73-7	Fluorene		6300	D
7005-72-3	4-Chlorophenyl phenyl ether		4000	U
84-66-2	Diethyl phthalate		4000	U
100-01-6	4-Nitroaniline		40000	U
534-52-1	4,6-Dinitro-2-methylphenol		20000	U
86-30-6	n-Nitrosodiphenylamine		4000	U
101-55-3	4-Bromophenyl phenyl ether		4000	U
118-74-1	Hexachlorobenzene		4000	U
87-86-5	Pentachlorophenol		7900	U
85-01-8	Phenanthrene	32000	~~43000~~	~~ED~~ D
120-12-7	Anthracene		12000	D
84-74-2	Di-n-butyl phthalate		4000	U
86-74-8	Carbazole		3400	JD
206-44-0	Fluoranthene	25000	~~40000~~	~~ED~~ D
129-00-0	Pyrene	42000	~~50000~~	~~ED~~ DJ
85-68-7	Butyl benzyl phthalate		4000	~~D~~ UJ
91-94-1	3,3'-Dichlorobenzidine		4000	~~D~~ UJ
56-55-3	Benzo[a]anthracene		19000	~~D~~ DJ
218-01-9	Chrysene		17000	~~D~~ DJ
117-81-7	bis(2-Ethylhexyl)phthalate		4000	~~D~~ UJ
117-84-0	Di-n-octyl phthalate		4000	~~D~~ UJ
205-99-2	Benzo[b]fluoranthene	17000	~~34000~~	~~ED~~ DJ
207-08-9	Benzo[k]fluoranthene		7900	~~D~~ DJ
50-32-8	Benzo[a]pyrene		18000	~~D~~ DJ
193-39-5	Indeno[1,2,3-cd]pyrene		7600	~~D~~ DJ
53-70-3	Dibenz[a,h]anthracene		4000	~~D~~ UJ
191-24-2	Benzo[g,h,i]perylene		7600	~~D~~ DJ

733

0000268

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

T7-4

Lab Name: Upstate Laboratories, Inc. Contract: C&H

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH13

Matrix: (soil/water) SOIL Lab Sample ID: 32099004

Sample wt/vol: 30 (g/ml) G Lab File ID: B7601.D

Level: (low/med) LOW Date Received: 11/15/99

% Moisture: 15 decanted:(Y/N) N Date Extracted: 11/18/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/16/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
86-30-6	N-nitrosodimethylamine	390	U
111-44-4	bis(2-Chloroethyl)ether	390	U
108-95-2	Phenol	390	U
95-57-8	2-Chlorophenol	390	U
541-73-1	1,3-Dichlorobenzene	390	U
106-46-7	1,4-Dichlorobenzene	390	U
95-50-1	1,2-Dichlorobenzene	390	U
108-60-1	2,2'-oxybis(1-Chloropropane)	390	U
95-48-7	2-Methylphenol	390	U
67-72-1	Hexachloroethane	390	U
621-64-7	N-Nitroso-di-n-propylamine	390	U
106-44-5	(3+4)-Methylphenol	390	U
98-95-3	Nitrobenzene	390	U
78-59-1	Isophorone	390	U
88-75-5	2-Nitrophenol	390	U
105-67-9	2,4-Dimethylphenol	390	U
111-91-1	bis(2-Chloroethoxy)methane	390	U
120-83-2	2,4-Dichlorophenol	390	U
120-82-1	1,2,4-Trichlorobenzene	390	U
91-20-3	Naphthalene	390	U
106-47-8	4-Chloroaniline	390	U
87-68-3	Hexachlorobutadiene	390	U
59-50-7	4-Chloro-3-methylphenol	390	U
91-57-6	2-Methylnaphthalene	390	U
77-47-4	Hexachlorocyclopentadiene	390	U
88-06-2	2,4,6-Trichlorophenol	390	U
95-95-4	2,4,5-Trichlorophenol	3900	U
91-58-7	2-Chloronaphthalene	390	U
88-74-4	2-Nitroaniline	3900	U
208-96-8	Acenaphthylene	390	U
131-11-3	Dimethyl phthalate	390	U
606-20-2	2,6-Dinitrotoluene	390	U
83-32-9	Acenaphthene	390	U
99-09-2	3-Nitroaniline	3900	U
51-28-5	2,4-Dinitrophenol	3900	U
132-64-9	Dibenzofuran	390	U
121-14-2	2,4-Dinitrotoluene	390	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T7-4

Lab Name: Upstate Laboratories, Inc. Contract: C&H

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH13

Matrix: (soil/water) SOIL Lab Sample ID: 32099004

Sample wt/vol: 30 (g/ml) G Lab File ID: B7601.D

Level: (low/med) LOW Date Received: 11/15/99

% Moisture: 15 decanted:(Y/N) N Date Extracted: 11/18/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/16/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-02-7	4-Nitrophenol	3900	U
86-73-7	Fluorene	390	U
7005-72-3	4-Chlorophenyl phenyl ether	390	U
84-66-2	Diethyl phthalate	390	U
100-01-6	4-Nitroaniline	3900	U
534-52-1	4,6-Dinitro-2-methylphenol	2000	U
86-30-6	n-Nitrosodiphenylamine	390	U
101-55-3	4-Bromophenyl phenyl ether	390	U
118-74-1	Hexachlorobenzene	390	U
87-86-5	Pentachlorophenol	780	U
85-01-8	Phenanthrene	390	U
120-12-7	Anthracene	390	U
84-74-2	Di-n-butyl phthalate	390	U
86-74-8	Carbazole	390	U
206-44-0	Fluoranthene	390	U
129-00-0	Pyrene	390	U
85-68-7	Butyl benzyl phthalate	390	U
91-94-1	3,3'-Dichlorobenzidine	390	U
56-55-3	Benzo[a]anthracene	390	U
218-01-9	Chrysene	390	U
117-81-7	bis(2-Ethylhexyl)phthalate	390 ~~430~~	~~JB~~ U
117-84-0	Di-n-octyl phthalate	390	U
205-99-2	Benzo[b]fluoranthene	390	U
207-08-9	Benzo[k]fluoranthene	390	U
50-32-8	Benzo[a]pyrene	390	U
193-39-5	Indeno[1,2,3-cd]pyrene	390	U
53-70-3	Dibenz[a,h]anthracene	390	U
191-24-2	Benzo[g,h,i]perylene	390	U

0000310

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

T8OIL

Lab Name: Upstate Laboratories, Inc. Contract: C&H

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH13

Matrix: (soil/water) SOIL Lab Sample ID: 32199029

Sample wt/vol: 1 (g/ml) G Lab File ID: B7596.D

Level: (low/med) LOW Date Received: 11/16/99

% Moisture: 0 decanted:(Y/N) N Date Extracted: 11/18/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/99

Injection Volume: 2.0 (uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
86-30-6	N-nitrosodimethylamine	100000	U
111-44-4	bis(2-Chloroethyl)ether	100000	U
108-95-2	Phenol	100000	U
95-57-8	2-Chlorophenol	100000	U
541-73-1	1,3-Dichlorobenzene	100000	U
106-46-7	1,4-Dichlorobenzene	100000	U
95-50-1	1,2-Dichlorobenzene	100000	U
108-60-1	2,2'-oxybis(1-Chloropropane)	100000	U
95-48-7	2-Methylphenol	100000	U
67-72-1	Hexachloroethane	100000	U
621-64-7	N-Nitroso-dl-n-propylamine	100000	U
106-44-5	(3+4)-Methylphenol	100000	U
98-95-3	Nitrobenzene	100000	U
78-59-1	Isophorone	100000	U
88-75-5	2-Nitrophenol	100000	U
105-67-9	2,4-Dimethylphenol	100000	U
111-91-1	bis(2-Chloroethoxy)methane	100000	U
120-83-2	2,4-Dichlorophenol	100000	U
120-82-1	1,2,4-Trichlorobenzene	100000	U
91-20-3	Naphthalene	20000	JD
106-47-8	4-Chloroaniline	100000	U
87-68-3	Hexachlorobutadiene	100000	U
59-50-7	4-Chloro-3-methylphenol	100000	U
91-57-6	2-Methylnaphthalene	81000	JD
77-47-4	Hexachlorocyclopentadiene	100000	U
88-06-2	2,4,6-Trichlorophenol	100000	U
95-95-4	2,4,5-Trichlorophenol	1000000	U
91-58-7	2-Chloronaphthalene	100000	U
88-74-4	2-Nitroaniline	1000000	U
208-96-8	Acenaphthylene	100000	U
131-11-3	Dimethyl phthalate	100000	U
606-20-2	2,6-Dinitrotoluene	100000	U
83-32-9	Acenaphthene	100000	U
99-09-2	3-Nitroaniline	1000000	U
51-28-5	2,4-Dinitrophenol	1000000	U
132-64-9	Dibenzofuran	100000	U
121-14-2	2,4-Dinitrotoluene	100000	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T8OIL

Lab Name: Upstate Laboratories, Inc. Contract: C&H

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH13

Matrix: (soil/water) SOIL Lab Sample ID: 32199029

Sample wt/vol: 1 (g/ml) G Lab File ID: B7596.D

Level: (low/med) LOW Date Received: 11/16/99

% Moisture: 0 decanted:(Y/N) N Date Extracted: 11/18/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/99

Injection Volume: 2.0 (uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-02-7	4-Nitrophenol	1000000	U
86-73-7	Fluorene	100000	U
7005-72-3	4-Chlorophenyl phenyl ether	100000	U
84-66-2	Diethyl phthalate	100000	U
100-01-6	4-Nitroaniline	1000000	U
534-52-1	4,6-Dinitro-2-methylphenol	500000	U
86-30-6	n-Nitrosodiphenylamine	100000	U
101-55-3	4-Bromophenyl phenyl ether	100000	U
118-74-1	Hexachlorobenzene	100000	U
87-86-5	Pentachlorophenol	200000	U
85-01-8	Phenanthrene	18000	JD
120-12-7	Anthracene	100000	U
84-74-2	Di-n-butyl phthalate	100000	U
86-74-8	Carbazole	100000	U
206-44-0	Fluoranthene	100000	U
129-00-0	Pyrene	100000	U
85-68-7	Butyl benzyl phthalate	100000	U
91-94-1	3,3'-Dichlorobenzidine	100000	U
56-55-3	Benzo[a]anthracene	100000	U
218-01-9	Chrysene	100000	U
117-81-7	bis(2-Ethylhexyl)phthalate	100000	U
117-84-0	Di-n-octyl phthalate	100000	U
205-99-2	Benzo[b]fluoranthene	100000	U
207-08-9	Benzo[k]fluoranthene	100000	U
50-32-8	Benzo[a]pyrene	100000	U
193-39-5	Indeno[1,2,3-cd]pyrene	100000	U
53-70-3	Dibenz[a,h]anthracene	100000	U
191-24-2	Benzo[g,h,i]perylene	100000	U

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

T8-2

Lab Name: Upstate Laboratories, Inc. Contract: C&H

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH13

Matrix: (soil/water) SOIL Lab Sample ID: 32199030

Sample wt/vol: 30 (g/ml) G Lab File ID: B7599.D

Level: (low/med) LOW Date Received: 11/16/99

% Moisture: 15 decanted:(Y/N) N Date Extracted: 11/18/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/16/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
86-30-6	N-nitrosodimethylamine	390	U
111-44-4	bis(2-Chloroethyl)ether	390	U
108-95-2	Phenol	390	U
95-57-8	2-Chlorophenol	390	U
541-73-1	1,3-Dichlorobenzene	390	U
106-46-7	1,4-Dichlorobenzene	390	U
95-50-1	1,2-Dichlorobenzene	390	U
108-60-1	2,2'-oxybis(1-Chloropropane)	390	U
95-48-7	2-Methylphenol	390	U
67-72-1	Hexachloroethane	390	U
621-64-7	N-Nitroso-di-n-propylamine	390	U
106-44-5	(3+4)-Methylphenol	390	U
98-95-3	Nitrobenzene	390	U
78-59-1	Isophorone	390	U
88-75-5	2-Nitrophenol	390	U
105-67-9	2,4-Dimethylphenol	390	U
111-91-1	bis(2-Chloroethoxy)methane	390	U
120-83-2	2,4-Dichlorophenol	390	U
120-82-1	1,2,4-Trichlorobenzene	390	U
91-20-3	Naphthalene	390 ~~260~~	J ~~U~~
106-47-8	4-Chloroaniline	390	U
87-68-3	Hexachlorobutadiene	390	U
59-50-7	4-Chloro-3-methylphenol	390	U
91-57-6	2-Methylnaphthalene	1200	
77-47-4	Hexachlorocyclopentadiene	390	U
88-06-2	2,4,6-Trichlorophenol	390	U
95-95-4	2,4,5-Trichlorophenol	3900	U
91-58-7	2-Chloronaphthalene	390	U
88-74-4	2-Nitroaniline	3900	U
208-96-8	Acenaphthylene	390	U
131-11-3	Dimethyl phthalate	390	U
606-20-2	2,6-Dinitrotoluene	390	U
83-32-9	Acenaphthene	390 ~~75~~	J ~~U~~
99-09-2	3-Nitroaniline	3900	U
51-28-5	2,4-Dinitrophenol	3900	U
132-64-9	Dibenzofuran	390	U
121-14-2	2,4-Dinitrotoluene	390	U

0000359

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T8-2

Lab Name: Upstate Laboratories, Inc. Contract: C&H

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH13

Matrix: (soil/water) SOIL Lab Sample ID: 32199030

Sample wt/vol: 30 (g/ml) G Lab File ID: B7599.D

Level: (low/med) LOW Date Received: 11/16/99

% Moisture: 15 decanted:(Y/N) N Date Extracted: 11/18/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/16/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-02-7	4-Nitrophenol	3900	U
86-73-7	Fluorene	170	J
7005-72-3	4-Chlorophenyl phenyl ether	390	U
84-66-2	Diethyl phthalate	390	U
100-01-6	4-Nitroaniline	3900	U
534-52-1	4,6-Dinitro-2-methylphenol	2000	U
86-30-6	n-Nitrosodiphenylamine	390	U
101-55-3	4-Bromophenyl phenyl ether	390	U
118-74-1	Hexachlorobenzene	390	U
87-86-5	Pentachlorophenol	780	U
85-01-8	Phenanthrene	670	
120-12-7	Anthracene	390	U
84-74-2	Di-n-butyl phthalate	390	U
86-74-8	Carbazole	390	U
206-44-0	Fluoranthene	390	U
129-00-0	Pyrene	390	U
85-68-7	Butyl benzyl phthalate	390	U
91-94-1	3,3'-Dichlorobenzidine	390	U
56-55-3	Benzo[a]anthracene	390	U
218-01-9	Chrysene	390	U
117-81-7	bis(2-Ethylhexyl)phthalate	390	U
117-84-0	Di-n-octyl phthalate	390	U
205-99-2	Benzo[b]fluoranthene	390	U
207-08-9	Benzo[k]fluoranthene	390	U
50-32-8	Benzo[a]pyrene	390	U
193-39-5	Indeno[1,2,3-cd]pyrene	390	U
53-70-3	Dibenz[a,h]anthracene	390	U
191-24-2	Benzo[g,h,i]perylene	390	U

UJ

FORM I SV-2

3/90

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

T8-2DP

Lab Name: Upstate Laboratories, Inc. Contract: C&H

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH13

Matrix: (soil/water) SOIL Lab Sample ID: 32199031

Sample wt/vol: 30.1 (g/ml) G Lab File ID: B7600.D

Level: (low/med) LOW Date Received: 11/16/99

% Moisture: 20 decanted:(Y/N) N Date Extracted: 11/18/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/16/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
86-30-6	N-nitrosodimethylamine	420	U
111-44-4	bis(2-Chloroethyl)ether	420	U
108-95-2	Phenol	420	U
95-57-8	2-Chlorophenol	420	U
541-73-1	1,3-Dichlorobenzene	420	U
106-46-7	1,4-Dichlorobenzene	420	U
95-50-1	1,2-Dichlorobenzene	420	U
108-60-1	2,2'-oxybis(1-Chloropropane)	420	U
95-48-7	2-Methylphenol	420	U
67-72-1	Hexachloroethane	420	U
621-64-7	N-Nitroso-di-n-propylamine	420	U
106-44-5	(3+4)-Methylphenol	420	U
98-95-3	Nitrobenzene	420	U
78-59-1	Isophorone	420	U
88-75-5	2-Nitrophenol	420	U
105-67-9	2,4-Dimethylphenol	420	U
111-91-1	bis(2-Chloroethoxy)methane	420	U
120-83-2	2,4-Dichlorophenol	420	U
120-82-1	1,2,4-Trichlorobenzene	420	U
91-20-3	Naphthalene	420 ~~310~~ J	U
106-47-8	4-Chloroaniline	420	U
87-68-3	Hexachlorobutadiene	420	U
59-50-7	4-Chloro-3-methylphenol	420	U
91-57-6	2-Methylnaphthalene	1200	
77-47-4	Hexachlorocyclopentadiene	420	U
88-06-2	2,4,6-Trichlorophenol	420	U
95-95-4	2,4,5-Trichlorophenol	4200	U
91-58-7	2-Chloronaphthalene	420	U
88-74-4	2-Nitroaniline	4200	U
208-96-8	Acenaphthylene	420	U
131-11-3	Dimethyl phthalate	420	U
606-20-2	2,6-Dinitrotoluene	420	U
83-32-9	Acenaphthene	420	U
99-09-2	3-Nitroaniline	4200	U
51-28-5	2,4-Dinitrophenol	4200	U
132-64-9	Dibenzofuran	420	U
121-14-2	2,4-Dinitrotoluene	420	U

0000390

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T8-2DP

Lab Name: Upstate Laboratories, Inc. Contract: C&H

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH13

Matrix: (soil/water) SOIL Lab Sample ID: 32199031

Sample wt/vol: 30.1 (g/ml) G Lab File ID: B7600.D

Level: (low/med) LOW Date Received: 11/16/99

% Moisture: 20 decanted:(Y/N) N Date Extracted: 11/18/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/16/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-02-7	4-Nitrophenol	4200	U
86-73-7	Fluorene	420	U
7005-72-3	4-Chlorophenyl phenyl ether	420	U
84-66-2	Diethyl phthalate	420	U
100-01-6	4-Nitroaniline	4200	U
534-52-1	4,6-Dinitro-2-methylphenol	2100	U
86-30-6	n-Nitrosodiphenylamine	420	U
101-55-3	4-Bromophenyl phenyl ether	420	U
118-74-1	Hexachlorobenzene	420	U
87-86-5	Pentachlorophenol	830	U
85-01-8	Phenanthrene	420 ~~1000~~	U
120-12-7	Anthracene	420	U
84-74-2	Di-n-butyl phthalate	420	U
86-74-8	Carbazole	420	U
206-44-0	Fluoranthene	420	U
129-00-0	Pyrene	420	U
85-68-7	Butyl benzyl phthalate	420	U
91-94-1	3,3'-Dichlorobenzidine	420	U
56-55-3	Benzo[a]anthracene	420	U
218-01-9	Chrysene	420	U
117-81-7	bis(2-Ethylhexyl)phthalate	420	U
117-84-0	Di-n-octyl phthalate	420	U
205-99-2	Benzo[b]fluoranthene	420	U
207-08-9	Benzo[k]fluoranthene	420	U
50-32-8	Benzo[a]pyrene	420	U
193-39-5	Indeno[1,2,3-cd]pyrene	420	U
53-70-3	Dibenz[a,h]anthracene	420	U
191-24-2	Benzo[g,h,i]perylene	420	U

U5

JMB

0000391

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

T9-1

Lab Name: Upstate Laboratories, Inc. Contract: C&H

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH13

Matrix: (soil/water) SOIL Lab Sample ID: 32199032

Sample wt/vol: 30 (g/ml) G Lab File ID: B7597.D

Level: (low/med) LOW Date Received: 11/16/99

% Moisture: 20 decanted:(Y/N) N Date Extracted: 11/18/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
86-30-6	N-nitrosodimethylamine	420	U
111-44-4	bis(2-Chloroethyl)ether	420	U
108-95-2	Phenol	420	U
95-57-8	2-Chlorophenol	420	U
541-73-1	1,3-Dichlorobenzene	420	U
106-46-7	1,4-Dichlorobenzene	420	U
95-50-1	1,2-Dichlorobenzene	420	U
108-60-1	2,2'-oxybis(1-Chloropropane)	420	U
95-48-7	2-Methylphenol	420	U
67-72-1	Hexachloroethane	420	U
621-64-7	N-Nitroso-di-n-propylamine	420	U
106-44-5	(3+4)-Methylphenol	420	U
98-95-3	Nitrobenzene	420	U
78-59-1	Isophorone	420	U
88-75-5	2-Nitrophenol	420	U
105-67-9	2,4-Dimethylphenol	420	U
111-91-1	bis(2-Chloroethoxy)methane	420	U
120-83-2	2,4-Dichlorophenol	420	U
120-82-1	1,2,4-Trichlorobenzene	420	U
91-20-3	Naphthalene	420	U
106-47-8	4-Chloroaniline	420	U
87-68-3	Hexachlorobutadiene	420	U
59-50-7	4-Chloro-3-methylphenol	420	U
91-57-6	2-Methylnaphthalene	420	U
77-47-4	Hexachlorocyclopentadiene	420	U
88-06-2	2,4,6-Trichlorophenol	420	U
95-95-4	2,4,5-Trichlorophenol	4200	U
91-58-7	2-Chloronaphthalene	420	U
88-74-4	2-Nitroaniline	4200	U
208-96-8	Acenaphthylene	420	U
131-11-3	Dimethyl phthalate	420	U
606-20-2	2,6-Dinitrotoluene	420	U
83-32-9	Acenaphthene	420	U
99-09-2	3-Nitroaniline	4200	U
51-28-5	2,4-Dinitrophenol	4200	U
132-64-9	Dibenzofuran	420	U
121-14-2	2,4-Dinitrotoluene	420	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T9-1

Lab Name: Upstate Laboratories, Inc. Contract: C&H

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH13

Matrix: (soil/water) SOIL Lab Sample ID: 32199032

Sample wt/vol: 30 (g/ml) G Lab File ID: B7597.D

Level: (low/med) LOW Date Received: 11/16/99

% Moisture: 20 decanted:(Y/N) N Date Extracted: 11/18/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-02-7	4-Nitrophenol	4200	U
86-73-7	Fluorene	420	U
7005-72-3	4-Chlorophenyl phenyl ether	420	U
84-66-2	Diethyl phthalate	420	U
100-01-6	4-Nitroaniline	4200	U
534-52-1	4,6-Dinitro-2-methylphenol	2100	U
86-30-6	n-Nitrosodiphenylamine	420	U
101-55-3	4-Bromophenyl phenyl ether	420	U
118-74-1	Hexachlorobenzene	420	U
87-86-5	Pentachlorophenol	830	U
85-01-8	Phenanthrene	420	U
120-12-7	Anthracene	420	U
84-74-2	Di-n-butyl phthalate	420	U
86-74-8	Carbazole	420	U
206-44-0	Fluoranthene	420	U
129-00-0	Pyrene	420	U
85-68-7	Butyl benzyl phthalate	420	U
91-94-1	3,3'-Dichlorobenzidine	420	U
56-55-3	Benzo[a]anthracene	420	U
218-01-9	Chrysene	420	U
117-81-7	bis(2-Ethylhexyl)phthalate	420 ~~110~~	~~B~~ U
117-84-0	Di-n-octyl phthalate	420	U
205-99-2	Benzo[b]fluoranthene	420	U
207-08-9	Benzo[k]fluoranthene	420	U
50-32-8	Benzo[a]pyrene	420	U
193-39-5	Indeno[1,2,3-cd]pyrene	420	U
53-70-3	Dibenz[a,h]anthracene	420	U
191-24-2	Benzo[g,h,i]perylene	420	U

0000424

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T12-1

Lab Name: Upstate Laboratories, Inc. Contract: C&H

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH13

Matrix: (soil/water) SOIL Lab Sample ID: 32399037

Sample wt/vol: 30 (g/ml) G Lab File ID: B7627.D

Level: (low/med) LOW Date Received: 11/18/99

% Moisture: 20 decanted:(Y/N) N Date Extracted: 11/18/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/17/99

Injection Volume: 2.0 (uL) Dilution Factor: 100.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
86-30-6	N-nitrosodimethylamine	42000	U
111-44-4	bis(2-Chloroethyl)ether	42000	U
108-95-2	Phenol	42000	U
95-57-8	2-Chlorophenol	42000	U
541-73-1	1,3-Dichlorobenzene	42000	U
106-46-7	1,4-Dichlorobenzene	42000	U
95-50-1	1,2-Dichlorobenzene	42000	U
108-60-1	2,2'-oxybis(1-Chloropropane)	42000	U
95-48-7	2-Methylphenol	42000	U
67-72-1	Hexachloroethane	42000	U
621-64-7	N-Nitroso-di-n-propylamine	42000	U
106-44-5	(3+4)-Methylphenol	42000	U
98-95-3	Nitrobenzene	42000	U
78-59-1	Isophorone	42000	U
88-75-5	2-Nitrophenol	42000	U
105-67-9	2,4-Dimethylphenol	42000	U
111-91-1	bis(2-Chloroethoxy)methane	42000	U
120-83-2	2,4-Dichlorophenol	42000	U
120-82-1	1,2,4-Trichlorobenzene	42000	U
91-20-3	Naphthalene	42000	U
106-47-8	4-Chloroaniline	42000	U
87-68-3	Hexachlorobutadiene	42000	U
59-50-7	4-Chloro-3-methylphenol	42000	U
91-57-6	2-Methylnaphthalene	42000	U
77-47-4	Hexachlorocyclopentadiene	42000	U
88-06-2	2,4,6-Trichlorophenol	42000	U
95-95-4	2,4,5-Trichlorophenol	420000	U
91-58-7	2-Chloronaphthalene	42000	U
88-74-4	2-Nitroaniline	420000	U
208-96-8	Acenaphthylene	42000	U
131-11-3	Dimethyl phthalate	42000	U
606-20-2	2,6-Dinitrotoluene	42000	U
83-32-9	Acenaphthene	42000	U
99-09-2	3-Nitroaniline	420000	U
51-28-5	2,4-Dinitrophenol	420000	U
132-64-9	Dibenzofuran	42000	U
121-14-2	2,4-Dinitrotoluene	42000	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T12-1

Lab Name: Upstate Laboratories, Inc. Contract: C&H

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH13

Matrix: (soil/water) SOIL Lab Sample ID: 32399037

Sample wt/vol: 30 (g/ml) G Lab File ID: B7627.D

Level: (low/med) LOW Date Received: 11/18/99

% Moisture: 20 decanted:(Y/N) N Date Extracted: 11/18/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/17/99

Injection Volume: 2.0 (uL) Dilution Factor: 100.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-02-7	4-Nitrophenol	420000	U
86-73-7	Fluorene	42000	U
7005-72-3	4-Chlorophenyl phenyl ether	42000	U
84-66-2	Diethyl phthalate	42000	U
100-01-6	4-Nitroaniline	420000	U
534-52-1	4,6-Dinitro-2-methylphenol	210000	U
86-30-6	n-Nitrosodiphenylamine	42000	U
101-55-3	4-Bromophenyl phenyl ether	42000	U
118-74-1	Hexachlorobenzene	42000	U
87-86-5	Pentachlorophenol	83000	U
85-01-8	Phenanthrene	42000	U
120-12-7	Anthracene	42000	U
84-74-2	Di-n-butyl phthalate	42000	U
86-74-8	Carbazole	42000	U
206-44-0	Fluoranthene	42000	U
129-00-0	Pyrene	42000	U
85-68-7	Butyl benzyl phthalate	42000	U
91-94-1	3,3'-Dichlorobenzidine	42000	U
56-55-3	Benzo[a]anthracene	42000	U
218-01-9	Chrysene	42000	U
117-81-7	bis(2-Ethylhexyl)phthalate	42000	U
117-84-0	Di-n-octyl phthalate	42000	U
205-99-2	Benzo[b]fluoranthene	42000	U
207-08-9	Benzo[k]fluoranthene	42000	U
50-32-8	Benzo[a]pyrene	42000	U
193-39-5	Indeno[1,2,3-cd]pyrene	42000	U
53-70-3	Dibenz[a,h]anthracene	42000	U
191-24-2	Benzo[g,h,i]perylene	42000	U

0000439

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

T13-1

Lab Name: Upstate Laboratories, Inc. Contract: C&H

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH13

Matrix: (soil/water) SOIL Lab Sample ID: 32399040

Sample wt/vol: 30.6 (g/ml) G Lab File ID: B7626.D

Level: (low/med) LOW Date Received: 11/18/99

% Moisture: 6 decanted:(Y/N) N Date Extracted: 11/18/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/17/99

Injection Volume: 2.0 (uL) Dilution Factor: 100.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
86-30-6	N-nitrosodimethylamine	35000	U
111-44-4	bis(2-Chloroethyl)ether	35000	U
108-95-2	Phenol	35000	U
95-57-8	2-Chlorophenol	35000	U
541-73-1	1,3-Dichlorobenzene	35000	U
106-46-7	1,4-Dichlorobenzene	35000	U
95-50-1	1,2-Dichlorobenzene	35000	U
108-60-1	2,2'-oxybis(1-Chloropropane)	35000	U
95-48-7	2-Methylphenol	35000	U
67-72-1	Hexachloroethane	35000	U
621-64-7	N-Nitroso-di-n-propylamine	35000	U
106-44-5	(3+4)-Methylphenol	35000	U
98-95-3	Nitrobenzene	35000	U
78-59-1	Isophorone	35000	U
88-75-5	2-Nitrophenol	35000	U
105-67-9	2,4-Dimethylphenol	35000	U
111-91-1	bis(2-Chloroethoxy)methane	35000	U
120-83-2	2,4-Dichlorophenol	35000	U
120-82-1	1,2,4-Trichlorobenzene	35000	U
91-20-3	Naphthalene	35000	U
106-47-8	4-Chloroaniline	35000	U
87-68-3	Hexachlorobutadiene	35000	U
59-50-7	4-Chloro-3-methylphenol	35000	U
91-57-6	2-Methylnaphthalene	35000	U
77-47-4	Hexachlorocyclopentadiene	35000	U
88-06-2	2,4,6-Trichlorophenol	35000	U
95-95-4	2,4,5-Trichlorophenol	350000	U
91-58-7	2-Chloronaphthalene	35000	U
88-74-4	2-Nitroaniline	350000	U
208-96-8	Acenaphthylene	35000	U
131-11-3	Dimethyl phthalate	35000	U
606-20-2	2,6-Dinitrotoluene	35000	U
83-32-9	Acenaphthene	35000	U
99-09-2	3-Nitroaniline	350000	U
51-28-5	2,4-Dinitrophenol	350000	U
132-64-9	Dibenzofuran	35000	U
121-14-2	2,4-Dinitrotoluene	35000	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T13-1

Lab Name: Upstate Laboratories, Inc. Contract: C&H

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH13

Matrix: (soil/water) SOIL Lab Sample ID: 32399040

Sample wt/vol: 30.6 (g/ml) G Lab File ID: B7626.D

Level: (low/med) LOW Date Received: 11/18/99

% Moisture: 6 decanted:(Y/N) N Date Extracted: 11/18/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/17/99

Injection Volume: 2.0 (uL) Dilution Factor: 100.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-02-7	4-Nitrophenol	350000	U
86-73-7	Fluorene	35000	U
7005-72-3	4-Chlorophenyl phenyl ether	35000	U
84-66-2	Diethyl phthalate	35000	U
100-01-6	4-Nitroaniline	350000	U
534-52-1	4,6-Dinitro-2-methylphenol	170000	U
86-30-6	n-Nitrosodiphenylamine	35000	U
101-55-3	4-Bromophenyl phenyl ether	35000	U
118-74-1	Hexachlorobenzene	35000	U
87-86-5	Pentachlorophenol	70000	U
85-01-8	Phenanthrene	35000	U
120-12-7	Anthracene	35000	U
84-74-2	Di-n-butyl phthalate	35000	U
86-74-8	Carbazole	35000	U
206-44-0	Fluoranthene	35000	U
129-00-0	Pyrene	35000	U
85-68-7	Butyl benzyl phthalate	35000	U
91-94-1	3,3'-Dichlorobenzidine	35000	U
56-55-3	Benzo[a]anthracene	35000	U
218-01-9	Chrysene	35000	U
117-81-7	bis(2-Ethylhexyl)phthalate	35000	U
117-84-0	Di-n-octyl phthalate	35000	U
205-99-2	Benzo[b]fluoranthene	35000	U
207-08-9	Benzo[k]fluoranthene	35000	U
50-32-8	Benzo[a]pyrene	35000	U
193-39-5	Indeno[1,2,3-cd]pyrene	35000	U
53-70-3	Dibenz[a,h]anthracene	35000	U
191-24-2	Benzo[g,h,i]perylene	35000	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T14-1

Lab Name: Upstate Laboratories, Inc. Contract: C&H Engine

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH13

Matrix: (soil/water) SOIL Lab Sample ID: 32399042

Sample wt/vol: 30.3 (g/ml) G Lab File ID: A9824.D

Level: (low/med) LOW Date Received: 11/18/99

% Moisture: 38 decanted:(Y/N) N Date Extracted: 11/22/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
86-30-6	N-nitrosodimethylamine	530	U
111-44-4	bis(2-Chloroethyl)ether	530	U
108-95-2	Phenol	530	U
95-57-8	2-Chlorophenol	530	U
541-73-1	1,3-Dichlorobenzene	530	U
106-46-7	1,4-Dichlorobenzene	530	U
95-50-1	1,2-Dichlorobenzene	530	U
108-60-1	2,2'-oxybis(1-Chloropropane)	530	U
95-48-7	2-Methylphenol	530	U
67-72-1	Hexachloroethane	530	U
621-64-7	N-Nitroso-di-n-propylamine	530	U
106-44-5	(3+4)-Methylphenol	530	U
98-95-3	Nitrobenzene	530	U
78-59-1	Isophorone	530	U
88-75-5	2-Nitrophenol	530	U
105-67-9	2,4-Dimethylphenol	530	U
111-91-1	bis(2-Chloroethoxy)methane	530	U
120-83-2	2,4-Dichlorophenol	530	U
120-82-1	1,2,4-Trichlorobenzene	530	U
91-20-3	Naphthalene	530	U
106-47-8	4-Chloroaniline	530	U
87-68-3	Hexachlorobutadiene	530	U
59-50-7	4-Chloro-3-methylphenol	530	U
91-57-6	2-Methylnaphthalene	530	U
77-47-4	Hexachlorocyclopentadiene	530	U
88-06-2	2,4,6-Trichlorophenol	530	U
95-95-4	2,4,5-Trichlorophenol	5300	U
91-58-7	2-Chloronaphthalene	530	U
88-74-4	2-Nitroaniline	5300	U
208-96-8	Acenaphthylene	530	U
131-11-3	Dimethyl phthalate	530	U
606-20-2	2,6-Dinitrotoluene	530	U
83-32-9	Acenaphthene	530	U
99-09-2	3-Nitroaniline	5300	U
51-28-5	2,4-Dinitrophenol	5300	U
132-64-9	Dibenzofuran	530	U
121-14-2	2,4-Dinitrotoluene	530	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T14-1

Lab Name: Upstate Laboratories, Inc. Contract: C&H Engine

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH13

Matrix: (soil/water) SOIL Lab Sample ID: 32399042

Sample wt/vol: 30.3 (g/ml) G Lab File ID: A9824.D

Level: (low/med) LOW Date Received: 11/18/99

% Moisture: 38 decanted:(Y/N) N Date Extracted: 11/22/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-02-7	4-Nitrophenol	5300	U
86-73-7	Fluorene	530	U
7005-72-3	4-Chlorophenyl phenyl ether	530	U
84-66-2	Diethyl phthalate	530	U
100-01-6	4-Nitroaniline	5300	U
534-52-1	4,6-Dinitro-2-methylphenol	2700	U
86-30-6	n-Nitrosodiphenylamine	530	U
101-55-3	4-Bromophenyl phenyl ether	530	U
118-74-1	Hexachlorobenzene	530	U
87-86-5	Pentachlorophenol	1100	U
85-01-8	Phenanthrene	530	U
120-12-7	Anthracene	530	U
84-74-2	Di-n-butyl phthalate	530	U
86-74-8	Carbazole	530	U
206-44-0	Fluoranthene	530	U
129-00-0	Pyrene	530	U
85-68-7	Butyl benzyl phthalate	530	U
91-94-1	3,3'-Dichlorobenzidine	530	U
56-55-3	Benzo[a]anthracene	530	U
218-01-9	Chrysene	530	U
117-81-7	bis(2-Ethylhexyl)phthalate	530	U
117-84-0	Di-n-octyl phthalate	530	U
205-99-2	Benzo[b]fluoranthene	530	U
207-08-9	Benzo[k]fluoranthene	530	U
50-32-8	Benzo[a]pyrene	530	U
193-39-5	Indeno[1,2,3-cd]pyrene	530	U
53-70-3	Dibenz[a,h]anthracene	530	U
191-24-2	Benzo[g,h,i]perylene	530	U

0000457

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T15-1

Lab Name: Upstate Laboratories, Inc. Contract: C&H Engine

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH13

Matrix: (soil/water) SOIL Lab Sample ID: 32399044

Sample wt/vol: 30 (g/ml) G Lab File ID: A9825.D

Level: (low/med) LOW Date Received: 11/18/99

% Moisture: 16 decanted:(Y/N) N Date Extracted: 11/22/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/99

Injection Volume: 2.0 (uL) Dilution Factor: 100.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
86-30-6	N-nitrosodimethylamine	40000	U
111-44-4	bis(2-Chloroethyl)ether	40000	U
108-95-2	Phenol	40000	U
95-57-8	2-Chlorophenol	40000	U
541-73-1	1,3-Dichlorobenzene	40000	U
106-46-7	1,4-Dichlorobenzene	40000	U
95-50-1	1,2-Dichlorobenzene	40000	U
108-60-1	2,2'-oxybis(1-Chloropropane)	40000	U
95-48-7	2-Methylphenol	40000	U
67-72-1	Hexachloroethane	40000	U
621-64-7	N-Nitroso-di-n-propylamine	40000	U
106-44-5	(3+4)-Methylphenol	40000	U
98-95-3	Nitrobenzene	40000	U
78-59-1	Isophorone	40000	U
88-75-5	2-Nitrophenol	40000	U
105-67-9	2,4-Dimethylphenol	40000	U
111-91-1	bis(2-Chloroethoxy)methane	40000	U
120-83-2	2,4-Dichlorophenol	40000	U
120-82-1	1,2,4-Trichlorobenzene	40000	U
91-20-3	Naphthalene	40000	U
106-47-8	4-Chloroaniline	40000	U
87-68-3	Hexachlorobutadiene	40000	U
59-50-7	4-Chloro-3-methylphenol	40000	U
91-57-6	2-Methylnaphthalene	40000	U
77-47-4	Hexachlorocyclopentadiene	40000	U
88-06-2	2,4,6-Trichlorophenol	40000	U
95-95-4	2,4,5-Trichlorophenol	400000	U
91-58-7	2-Chloronaphthalene	40000	U
88-74-4	2-Nitroaniline	400000	U
208-96-8	Acenaphthylene	40000	U
131-11-3	Dimethyl phthalate	40000	U
606-20-2	2,6-Dinitrotoluene	40000	U
83-32-9	Acenaphthene	40000	U
99-09-2	3-Nitroaniline	400000	U
51-28-5	2,4-Dinitrophenol	400000	U
132-64-9	Dibenzofuran	40000	U
121-14-2	2,4-Dinitrotoluene	40000	U

0000478

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T15-1

Lab Name: Upstate Laboratories, Inc. Contract: C&H Engine

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH13

Matrix: (soil/water) SOIL Lab Sample ID: 32399044

Sample wt/vol: 30 (g/ml) G Lab File ID: A9825.D

Level: (low/med) LOW Date Received: 11/18/99

% Moisture: 16 decanted:(Y/N) N Date Extracted: 11/22/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/99

Injection Volume: 2.0 (uL) Dilution Factor: 100.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-02-7	4-Nitrophenol	400000	U
86-73-7	Fluorene	40000	U
7005-72-3	4-Chlorophenyl phenyl ether	40000	U
84-66-2	Diethyl phthalate	40000	U
100-01-6	4-Nitroaniline	400000	U
534-52-1	4,6-Dinitro-2-methylphenol	200000	U
86-30-6	n-Nitrosodiphenylamine	40000	U
101-55-3	4-Bromophenyl phenyl ether	40000	U
118-74-1	Hexachlorobenzene	40000	U
87-86-5	Pentachlorophenol	79000	U
85-01-8	Phenanthrene	22000	JD
120-12-7	Anthracene	4800	JD
84-74-2	Di-n-butyl phthalate	40000	U
86-74-8	Carbazole	40000	U
206-44-0	Fluoranthene	27000	JD
129-00-0	Pyrene	29000	JD
85-68-7	Butyl benzyl phthalate	40000	U
91-94-1	3,3'-Dichlorobenzidine	40000	U
56-55-3	Benzo[a]anthracene	40000 ~~10000~~	~~JD~~ U
218-01-9	Chrysene	13000	JD
117-81-7	bis(2-Ethylhexyl)phthalate	40000	U
117-84-0	Di-n-octyl phthalate	40000	U
205-99-2	Benzo[b]fluoranthene	14000	JD
207-08-9	Benzo[k]fluoranthene	4200	JD
50-32-8	Benzo[a]pyrene	9900	JD
193-39-5	Indeno[1,2,3-cd]pyrene	40000	U
53-70-3	Dibenz[a,h]anthracene	40000	U
191-24-2	Benzo[g,h,i]perylene	40000	U

0000479

DATA USABILITY SUMMARY REPORT

for

BEARDSLEY DESIGN ASSOCIATES

431 EAST FAYETTE STREET

EAST SYRACUSE, NY 13202

FORMER BROWN MANUFACTURING SITE
SDG CH13
Sampled 11/15/99, 11/16/99, 11/18/99

SOILS SAMPLES for PCB

T7-1	(32099001	T7-2	(32099002)	T7-3	(32099003)
T7-4	(32099004)	T8-1	(32099005)	T8-2	(32199030)
T8-2dup	(32199031)	T9-1	(32199032)	T12-1	(32399037)
T12-2	(32399038)	T12-3	(32399039)	T13-1	(32399040)
T13-2	(32399041)	T14-1	(32399042)	T14-2	(32399043)
T15-1	(32399044)	T15-2	(32399045)		

DATA ASSESSMENT

A PCB data package containing analytical results for seventeen soil samples was received from Beardsley Design Associates on 16Nov01. The ASP deliverables package included formal reports, raw data, the necessary QC, and supporting information. The samples, taken from the Former Brown Manufacturing site, were identified by Chain of Custody documents and trackable through the work of Upstate Laboratories, Inc., the laboratory contracted for analysis. Analyses, performed according to SW-846 Method 8080, addressed determinations of PCB. Laboratory data was evaluated according to the Quality Assurance / Quality Control Requirements of the New York State Department of Environmental Conservation's Analytical Services Protocol (ASP), September 1989, Rev. 6/2000. When ASP protocol was not followed, the current EPA Region II Functional Guidelines (SPO NO. HW-6, Rev. #8, Jan. 1992, CLP Organics Data Review and Preliminary Review), was used as a technical reference.

The PCB results obtained from this group of samples have been qualified due to poor calibration performance. The reported sample concentrations were based on a calibration that was performed four days after the samples were actually analyzed. Calibration verifications based on the correct calibration files demonstrated poor instrument stability. Based on this performance, the data reported from this group of samples has been qualified as an estimation.

CORRECTNESS AND USABILITY

The PCB concentrations and CRDL's reported from this group of samples were calculated incorrectly. The reported values were calculated as mg/kg but reported as µg/kg. Form 1's have been corrected.

Reported data should be considered usable in its present form. Reported concentrations that are felt to provide a reasonable estimation of the conditions being measured have been flagged "J" or "UJ". Estimated data should be used with caution. A detailed discussion of the review process follows.

Two facts should be considered by all data users. No compound concentration, even if it has passed all QC testing, can be guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error. Secondly. DATAVAL, Inc. guarantees the quality of this data assessment. However, DATAVAL, Inc. does not warrant any interpretation or utilization of this data by a third party.

Reviewer's signature: James B. Baldwin Date: 1/21/02

SAMPLE HISTORY

Analyte concentrations can deteriorate with time due to chemical instability, bacterial degradation or volatility. Samples that are not properly preserved, or are not analyzed within established holding times, may no longer be considered representative. Holding times are calculated from the time of sample collection. Samples must remain chilled to 4°C from the time of collection. Aqueous samples must be extracted within 7 days. The extraction of soil samples must begin within 14 days of collection. Analyses must be completed within 40 days of extraction. Each sample delivery group, containing up to 20 samples, should include a field duplicate, a matrix spike, matrix spike duplicate, and a rinsate blank.

This sample delivery group, which included seventeen soil samples, was collected from the Former Brown Manufacturing site between 15Nov99 and 18Nov99. Five samples collected on 15Nov99, three collected on 16Nov99 and nine collected on 18Nov99 were delivered to the laboratory, after hours, on the day of collection. Each cooler of samples arrived intact, with custody seals in place. A temperature of 6.9°C was obtained from each sample cooler at the time of laboratory receipt.

Sample extractions were performed on 19Nov99 and 23Nov99. Analyses were completed by 18Dec99. Program holding time limitations were satisfied.

BLANKS

Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Method blanks are analyzed to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

Two method blanks were analyzed with this group of samples. Both blanks were free of PCB contamination.

CALIBRATION

Requirements for instrument calibration are established to ensure that laboratory equipment is capable of producing accurate, quantitative data. Initial calibrations demonstrate a range through which measurements may be made. Continuing calibration standards verify instrument stability.

The calculations included in this data package were based on calibration files that were generated four days after this group of samples was analyzed. It must be assumed that preventative maintenance was performed prior to this calibration, and that instrument performance had changed. The laboratory provided a second data submission which included the correct initial calibration. These files were generated nine months prior to the analysis of samples. The calibration sequences could not be directly compared because, in some cases, different chromatographic peaks were used for quantitation.

In an effort to avoid data rejections, the results reported from each sample, and from the associated calibration verifications, were recalculated by this reviewer. The analysis of this group of samples was bracketed by check standards of AR-1260, AR-1232 and AR-1254. These 500 µg/l standards produced recoveries of 75%, 149% and 122%, respectively. Although this performance does not satisfy the acceptance criteria found in SW-846 Method 8000, this work appears to provide a useful estimation of the levels of PCB present in each sample. This information should be used with caution.

An additional error was identified in the calculation of reported PCB results. The reported PCB concentrations and CRDL's were low by a factor of 1000. The laboratory's results were calculated as mg/kg, but reported as µg/l. Form 1's have been corrected.

SURROGATES

Each sample, blank and standard is spiked with surrogate compounds prior to analysis. The structures of surrogates are similar to analytes of interest, but they are not normally found in environmental samples. Surrogate recoveries are monitored to evaluate overall laboratory performance and the efficiency of laboratory technique.

Two surrogates, TCX and DCB were added to each sample. At least one of the additions to each sample was recovered successfully on both chromatographic columns. The surrogate performance reported for each sample satisfied the program acceptance criteria.

MATRIX SPIKES / MATRIX SPIKE DUPLICATES / MATRIX SPIKED BLANKS

Matrix spiking refers to the addition of known analyte concentrations to a sample, prior to analysis. Analyte recoveries provide an indication of laboratory accuracy. The analysis of a duplicate spiked aliquot provides a measurement of precision.

Sample T8-2 was selected for matrix spiking. Aroclor 1248 was added to two portions of this sample. The recoveries reported for both additions demonstrated acceptable levels of measurement accuracy and precision. A spike of AR1248 to a clean matrix was also recovered successfully.

DUPLICATES

Two aliquots of the same sample are processed separately through all aspects of sample preparation and analysis. Results produced by the analysis of this pair of samples are compared as a measurement of precision. Poor precision, may be indicative of sample non-homogeneity, method defects, or poor laboratory technique.

Field split duplicates of T8-2 were included in this group of samples. PCB were not detected in either sample.

SUMMARY OF QUALIFIED DATA

FORMER BROWN MANUFACTURING SITE — SAMPLED 11/15/99 thru 11/18/99

		CALIBRATE	CALCULATE AR 1254	CALCULATE AR 1248	CALCULATE CRDL
T7-1	(32099001)	ALL J/UJ	2210 µg/kg		100 µg/kg
T7-2	(32099002)	ALL J/UJ	2400 µg/kg		100 µg/kg
T7-3	(32099003)	ALL J/UJ	1585 µg/kg	4453 µg/kg	90 µg/kg
T7-4	(32099004)	ALL UJ			90 µg/kg
T8-1	(32099005)	ALL UJ			110 µg/kg
T8-2	(32199030)	ALL UJ			90 µg/kg
T8-2dup	(32199031)	ALL UJ			100 µg/kg
T9-1	(32199032)	ALL UJ			100 µg/kg
T12-1	(32399037)	ALL UJ			100 µg/kg
T12-2	(32399038)	ALL UJ			90 µg/kg
T12-3	(32399039)	ALL UJ			90 µg/kg
T13-1	(32399040)	ALL UJ			90 µg/kg
T13-2	(32399041)	ALL UJ			100 µg/kg
T14-1	(32399042)	ALL UJ			130 µg/kg
T14-2	(32399043)	ALL UJ			110 µg/kg
T15-1	(32399044)	ALL J/UJ	800 µg/kg		100 µg/kg
T15-2	(32399045)	ALL J/UJ	640 µg/kg		100 µg/kg

1A
PCB ANALYSIS DATA SHEET

NYSDEC SAMPLE NO. T7-1

Lab Name: Upstate Labs Inc. Contract:

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH13

Matrix: Soil Lab Sample ID: 32099001

Sample wt.: 30 (g) Lab File ID: PA5382

% Moisture: 17 Decanted: NO Date Received: 11/15/99

Extraction: shaker Date Extracted: 11/19/99

Conc Extract Vol.: ~~1000~~ 10000 (uL) Date Analyzed: 12/17/99

Injection Vol.: 2 (uL) Time Analyzed: 08:36PM

GPC Cleanup: No pH: Dilution Factor: 50

Instr. ID: ULI 9.0 Sulfur Cleanup: Yes

CAS NO.	COMPOUND	CONCENTRATION UNITS ug/Kg	Q
12674-11-2	Aroclor 1016	<100 ~~<10~~	U
11104-28-2	Aroclor 1221	<100 ~~<10~~	U
11141-16-5	Aroclor 1232	<100 ~~<10~~	U
53469-21-9	Aroclor 1242	<100 ~~<10~~	U
12672-29-6	Aroclor 1248	<100 ~~<10~~	U
11097-69-1	Aroclor 1254	2210 ~~1.25~~	J
11096-82-5	Aroclor 1260	<100 ~~<10~~	U

Not Det.

1A
PCB ANALYSIS DATA SHEET

NYSDEC SAMPLE NO. T7-2

Lab Name: Upstate Labs Inc. Contract:

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH13

Matrix: Soil Lab Sample ID: 32099002

Sample wt.: 30 (g) Lab File ID: PA5382

% Moisture: 16 Decanted: NO Date Received: 11/15/99

Extraction: shaker Date Extracted: 11/19/99

Conc Extract Vol.: 10000 ~~1000~~ (uL) JB Date Analyzed: 12/17/99

Injection Vol.: 2 (uL) Time Analyzed: 09:21PM

GPC Cleanup: No pH: Dilution Factor: 50

Instr. ID: ULI 9.0 Sulfur Cleanup: Yes

CAS NO.	COMPOUND	CONCENTRATION UNITS ug/Kg		Q
12674-11-2	Aroclor 1016	<100	~~<10~~	U
11104-28-2	Aroclor 1221	<100	~~<10~~	U
11141-16-5	Aroclor 1232	<100	~~<10~~ UJ	U
53469-21-9	Aroclor 1242	<100	~~<10~~	U
12672-29-6	Aroclor 1248	<100	~~<10~~	U
11097-69-1	Aroclor 1254	2400	~~1.14~~ J	J
11096-82-5	Aroclor 1260	<100	~~<10~~ UJ	U

JB JB

1A

PCB ANALYSIS DATA SHEET

NYSDEC SAMPLE NO. T7-3

Lab Name: Upstate Labs Inc. Contract:

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH13

Matrix: Soil Lab Sample ID: 32099003

Sample wt.: 30 (g) Lab File ID: PA5382

% Moisture: 12 Decanted: NO Date Received: 11/15/99

Extraction: shaker Date Extracted: 11/19/99

Conc Extract Vol.: 1000 (uL) Date Analyzed: 12/17/99

Injection Vol.: 2 (uL) Time Analyzed: 10:05PM

GPC Cleanup: No pH: Dilution Factor: 50

Instr. ID: ULI 9.0 Sulfur Cleanup: Yes

CAS NO.	COMPOUND	CONCENTRATION UNITS ug/Kg	Q
12674-11-2	Aroclor 1016	<90 ~~<.00~~	UJ
11104-28-2	Aroclor 1221	<90 ~~<.00~~	UJ
11141-16-5	Aroclor 1232	<90 ~~<.00~~	UJ
53469-21-9	Aroclor 1242	<90 ~~<.00~~	UJ
12672-29-6	Aroclor 1248	4453 ~~3.00~~	J
11097-69-1	Aroclor 1254	1585 ~~0.85~~	J
11096-82-5	Aroclor 1260	<90 ~~<.00~~	UJ

J/J J/J

1A
PCB ANALYSIS DATA SHEET

NYSDEC SAMPLE NO. T7-4

Lab Name: Upstate Labs Inc. Contract:

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH13

Matrix: Soil Lab Sample ID: 32099004

Sample wt.: 30 (g) Lab File ID: PA5302

% Moisture: 15 Decanted: NO Date Received: 11/15/99

Extraction: shaker Date Extracted: 11/19/99

Conc Extract Vol.: ~~1000~~ 10000 (uL) JB Date Analyzed: 12/17/99

Injection Vol.: 2 (uL) Time Analyzed: 10:50PM

GPC Cleanup: No pH: Dilution Factor: 50

Instr. ID: ULI 9.0 Sulfur Cleanup: Yes

CAS NO.	COMPOUND	CONCENTRATION UNITS ug/Kg		Q
12674-11-2	Aroclor 1016	<90 ~~<.09~~		U
11104-28-2	Aroclor 1221	<90 ~~<.09~~		U
11141-16-5	Aroclor 1232	<90 ~~<.09~~		U
53469-21-9	Aroclor 1242	<90 ~~<.09~~	(U)	U
12672-29-6	Aroclor 1248	<90 ~~<.09~~		U
11097-69-1	Aroclor 1254	<90 ~~<.09~~		U
11096-82-5	Aroclor 1260	<90 ~~<.09~~		U

JB

JB

1A

PCB ANALYSIS DATA SHEET

NYSDEC SAMPLE NO. T8-1

Lab Name: Upstate Labs Inc. Contract:

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH13

Matrix: Soil Lab Sample ID: 32099005

Sample wt.: 30 (g) Lab File ID: PA5382

% Moisture: 28 Decanted: NO Date Received: 11/15/99

Extraction: shaker Date Extracted: 11/19/99

Conc Extract Vol.: ~~1000~~ 10000 (uL) JB Date Analyzed: 12/17/99

Injection Vol.: 2 (uL) Time Analyzed: 11:34PM

GPC Cleanup: No pH: Dilution Factor: 50

Instr. ID: OLI 9.0 Sulfur Cleanup: Yes

CAS NO.	COMPOUND	CONCENTRATION UNITS ug/Kg	Q
12674-11-2	Aroclor 1016	<110 ~~<11~~	U
11104-28-2	Aroclor 1221	<110 ~~<11~~	U
11141-16-5	Aroclor 1232	<110 ~~<11~~	U
53469-21-9	Aroclor 1242	<110 ~~<11~~	U
12672-29-6	Aroclor 1248	<110 ~~<11~~	U
11097-69-1	Aroclor 1254	<110 ~~<11~~	U
11096-82-5	Aroclor 1260	<110 ~~<11~~	U

JB

1A
PCB ANALYSIS DATA SHEET

NYSDEC SAMPLE NO. T8-2

Lab Name: Upstate Labs Inc. Contract:

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH13

Matrix: Soil Lab Sample ID: 32199030

Sample wt.: 30 (g) Lab File ID: PA5382

% Moisture: 15 Decanted: NO Date Received: 11/16/99

Extraction: shaker Date Extracted: 11/19/99

Conc Extract Vol.: ~~1000~~ 10000 (uL) JMS Date Analyzed: 12/18/99

Injection Vol.: 2 (uL) Time Analyzed: 12:18AM

GPC Cleanup: No pH: Dilution Factor: 50

Instr. ID: ULI 9.0 Sulfur Cleanup: Yes

CAS NO.	COMPOUND	CONCENTRATION UNITS ug/Kg		Q
12674-11-2	Aroclor 1016	<90	~~<.09~~	U
11104-28-2	Aroclor 1221	<90	~~<.09~~	U
11141-16-5	Aroclor 1232	<90	~~<.09~~	U
53469-21-9	Aroclor 1242	<90	~~<.09~~	U
12672-29-6	Aroclor 1248	<90	~~<.09~~	U
11097-69-1	Aroclor 1254	<90	~~<.09~~	U
11096-82-5	Aroclor 1260	<90	~~<.09~~	U

U3

JMS

JMS

1A

PCB ANALYSIS DATA SHEET

NYSDEC SAMPLE NO. T8-2DP

Lab Name: Upstate Labs Inc. Contract:

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH13

Matrix: Soil Lab Sample ID: 32199031

Sample wt.: 30 (g) Lab File ID: PA5382

% Moisture: 20 Decanted: NO Date Received: 11/16/99*

Extraction: shaker Date Extracted: 11/19/99

Conc Extract Vol.: 10000 ~~1000~~ (uL) JB Date Analyzed: 12/18/99

Injection Vol.: 2 (uL) Time Analyzed: 02:31AM

GPC Cleanup: No pH: Dilution Factor: 50

Instr. ID: ULI 9.0 Sulfur Cleanup: Yes

CAS NO.	COMPOUND	CONCENTRATION UNITS ug/Kg	Q
12674-11-2	Aroclor 1016	<100 ~~<10~~	U
11104-28-2	Aroclor 1221	<100 ~~<10~~	U
11141-16-5	Aroclor 1232	<100 ~~<10~~	U
53469-21-9	Aroclor 1242	<100 ~~<10~~ UJ	U
12672-29-6	Aroclor 1248	<100 ~~<10~~	U
11097-69-1	Aroclor 1254	<100 ~~<10~~	U
11096-82-5	Aroclor 1260	<100 ~~<10~~	U

JB

JB

1A
PCB ANALYSIS DATA SHEET

NYSDEC SAMPLE NO. T9-1

Lab Name: Upstate Labs Inc.			Contract:		
Lab Code: 10170	Case No.:		SAS No.:	SDG No.: CH13	
Matrix:	Soil			Lab Sample ID:	32199032
Sample wt.:	30	(g)		Lab File ID:	PA5382
% Moisture:	20	Decanted:	NO	Date Received:	11/16/99
Extraction:	shaker			Date Extracted:	11/19/99
Conc Extract Vol.:		10000 ~~1000~~ (uL) JJB		Date Analyzed:	12/18/99
Injection Vol.:		2 (uL)		Time Analyzed:	03:16AM
GPC Cleanup:	No	pH:		Dilution Factor:	50
Instr. ID:	ULI 9.0			Sulfur Cleanup:	Yes

CAS NO.	COMPOUND	CONCENTRATION UNITS ug/Kg	Q
12674-11-2	Aroclor 1016	<100 ~~<.10~~	U
11104-28-2	Aroclor 1221	<100 ~~<.10~~	U
11141-16-5	Aroclor 1232	<100 ~~<.10~~	U
53469-21-9	Aroclor 1242	<100 ~~<.10~~	U
12672-29-6	Aroclor 1248	<100 ~~<.10~~	U
11097-69-1	Aroclor 1254	<100 ~~<.10~~	U
11096-82-5	Aroclor 1260	<100 ~~<.10~~	U

JJB

JJB

1A

PCB ANALYSIS DATA SHEET

NYSDEC SAMPLE NO. T12-1

Lab Name: Upstate Labs Inc. Contract:

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH13

Matrix: Soil Lab Sample ID: 32399037

Sample wt.: 30 (g) Lab File ID: PA5387

% Moisture: 20 Decanted: NO Date Received: 11/18/99

Extraction: shaker Date Extracted: 11/23/99

Conc Extract Vol.: ~~1000~~ 10000 (uL) JBS Date Analyzed: 12/17/99

Injection Vol.: 2 (uL) Time Analyzed: 10:09AM

GPC Cleanup: No pH: Dilution Factor: 50

Instr. ID: ULI 9.0 Sulfur Cleanup: Yes

CAS NO.	COMPOUND	CONCENTRATION UNITS ug/Kg	Q
12674-11-2	Aroclor 1016	<100 ~~<10~~	U
11104-28-2	Aroclor 1221	<100 ~~<10~~	U
11141-16-5	Aroclor 1232	<100 ~~<10~~	U
53469-21-9	Aroclor 1242	<100 ~~<10~~	U
12672-29-6	Aroclor 1248	<100 ~~<10~~	U
11097-69-1	Aroclor 1254	<100 ~~<10~~	U
11096-82-5	Aroclor 1260	<100 ~~<10~~	U

JBS

JBS

1A

PCB ANALYSIS DATA SHEET

NYSDEC SAMPLE NO. T12-2

Lab Name: Upstate Labs Inc. Contract:

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH13

Matrix: Soil Lab Sample ID: 32399038

Sample wt.: 30 (g) Lab File ID: PA5387

% Moisture: 11 Decanted: NO Date Received: 11/18/99

Extraction: shaker Date Extracted: 11/23/99

Conc Extract Vol.: 10000 ~~1000~~ (uL) JJS Date Analyzed: 12/17/99

Injection Vol.: 2 (uL) Time Analyzed: 10:54AM

GPC Cleanup: No pH: Dilution Factor: 50

Instr. ID: ULI 9.0 Sulfur Cleanup: Yes

CAS NO.	COMPOUND	CONCENTRATION UNITS ug/Kg	Q
12674-11-2	Aroclor 1016	<90 ~~<.09~~	U
11104-28-2	Aroclor 1221	<90 ~~<.09~~	U
11141-16-5	Aroclor 1232	<90 ~~<.09~~	U
53469-21-9	Aroclor 1242	<90 ~~<.09~~	U
12672-29-6	Aroclor 1248	<90 ~~<.09~~	U
11097-69-1	Aroclor 1254	<90 ~~<.09~~	U
11096-82-5	Aroclor 1260	<90 ~~<.09~~	U

JJS

JJS

1A
PCB ANALYSIS DATA SHEET

NYSDEC SAMPLE NO. T12-3

Lab Name: Upstate Labs Inc. Contract:

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH13

Matrix: Soil Lab Sample ID: 32399039

Sample wt.: 30 (g) Lab File ID: PA5387

% Moisture: 15 Decanted: NO Date Received: 11/18/99

Extraction: shaker Date Extracted: 11/23/99

Conc Extract Vol.: ~~1000~~ 10000 (uL) JMS Date Analyzed: 12/17/99

Injection Vol.: 2 (uL) Time Analyzed: 11:39AM

GPC Cleanup: No pH: Dilution Factor: 50

Instr. ID: ULI 9.0 Sulfur Cleanup: Yes

CAS NO.	COMPOUND	CONCENTRATION UNITS ug/Kg	Q
12674-11-2	Aroclor 1016	<90 ~~<.09~~	U
11104-28-2	Aroclor 1221	<90 ~~<.09~~	U
11141-16-5	Aroclor 1232	<90 ~~<.09~~	U
53469-21-9	Aroclor 1242	<90 ~~<.09~~	U
12672-29-6	Aroclor 1248	<90 ~~<.09~~	U
11097-69-1	Aroclor 1254	<90 ~~<.09~~	U
11096-82-5	Aroclor 1260	<90 ~~<.09~~	U

JMS

JMS

1A

PCB ANALYSIS DATA SHEET

NYSDEC SAMPLE NO. T13-1

Lab Name: Upstate Labs Inc. Contract:

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH13

Matrix: Soil Lab Sample ID: 32399040

Sample wt.: 30 (g) Lab File ID: PA5387

% Moisture: 6 Decanted: NO Date Received: 11/18/99

Extraction: shaker Date Extracted: 11/23/99

Conc Extract Vol.: 10000 ~~1000~~ (uL) JJJ Date Analyzed: 12/17/99

Injection Vol.: 2 (uL) Time Analyzed: 12:24PM

GPC Cleanup: No pH: Dilution Factor: 50

Instr. ID: ULI 9.0 Sulfur Cleanup: Yes

CAS NO.	COMPOUND	CONCENTRATION UNITS ug/Kg	Q
12674-11-2	Aroclor 1016	<90 ~~<.00~~	U
11104-28-2	Aroclor 1221	<90 ~~<.00~~	U
11141-16-5	Aroclor 1232	<90 ~~<.00~~	U
53469-21-9	Aroclor 1242	<90 ~~<.00~~	U
12672-29-6	Aroclor 1248	<90 ~~<.00~~	U
11097-69-1	Aroclor 1254	<90 ~~<.00~~	U
11096-82-5	Aroclor 1260	<90 ~~<.00~~	U

JJJ

JJJ

1A
PCB ANALYSIS DATA SHEET

NYSDEC SAMPLE NO. T13-2

Lab Name: Upstate Labs Inc. Contract:

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH13

Matrix: Soil Lab Sample ID: 32399041

Sample wt.: 30 (g) Lab File ID: PA5387

% Moisture: 16 Decanted: NO Date Received: 11/18/99

Extraction: shaker Date Extracted: 11/23/99

Conc Extract Vol.: 10000 ~~1000~~ (uL) JB Date Analyzed: 12/17/99

Injection Vol.: 2 (uL) Time Analyzed: 01:10PM

GPC Cleanup: No pH: Dilution Factor: 50

Instr. ID: ULI 9.0 Sulfur Cleanup: Yes

CAS NO.	COMPOUND	CONCENTRATION UNITS ug/Kg	Q
12674-11-2	Aroclor 1016	<100 ~~<10~~	U
11104-28-2	Aroclor 1221	<100 ~~<10~~	U
11141-16-5	Aroclor 1232	<100 ~~<10~~	U
53469-21-9	Aroclor 1242	<100 ~~<10~~	U
12672-29-6	Aroclor 1248	<100 ~~<10~~	U
11097-69-1	Aroclor 1254	<100 ~~<10~~	U
11096-82-5	Aroclor 1260	<100 ~~<10~~	U

JB

JB

1A

PCB ANALYSIS DATA SHEET

NYSDEC SAMPLE NO. T14-1

Lab Name: Upstate Labs Inc. Contract:

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH13

Matrix: Soil Lab Sample ID: 32399042

Sample wt.: 30 (g) Lab File ID: PA5387

% Moisture: 38 Decanted: NO Date Received: 11/18/99

Extraction: shaker Date Extracted: 11/23/99

Conc Extract Vol.: 10000 ~~1000~~ (uL) Date Analyzed: 12/17/99

Injection Vol.: 2 (uL) Time Analyzed: 04:10PM

GPC Cleanup: No pH: Dilution Factor: 50

Instr. ID: ULI 9.0 Sulfur Cleanup: Yes

CAS NO.	COMPOUND	CONCENTRATION UNITS ug/Kg	Q
12674-11-2	Aroclor 1016	<130 ~~<13~~	U
11104-28-2	Aroclor 1221	<130 ~~<13~~	U
11141-16-5	Aroclor 1232	<130 ~~<13~~	U
53469-21-9	Aroclor 1242	<130 ~~<13~~	U
12672-29-6	Aroclor 1248	<130 ~~<13~~	U
11097-69-1	Aroclor 1254	<130 ~~<13~~	U
11096-82-5	Aroclor 1260	<130 ~~<13~~	U

0000852

1A

PCB ANALYSIS DATA SHEET

NYSDEC SAMPLE NO. T14-2

Lab Name: Upstate Labs Inc. Contract:

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH13

Matrix: Soil Lab Sample ID: 32399043

Sample wt.: 30 (g) Lab File ID: PA5387

% Moisture: 27 Decanted: NO Date Received: 11/18/99

Extraction: shaker Date Extracted: 11/23/99

Conc Extract Vol.: 10000 ~~1000~~ (uL) JB Date Analyzed: 12/17/99

Injection Vol.: 2 (uL) Time Analyzed: 04:54PM

GPC Cleanup: No pH: Dilution Factor: 50

Instr. ID: ULI 9.0 Sulfur Cleanup: Yes

CAS NO.	COMPOUND	CONCENTRATION UNITS ug/Kg		Q
12674-11-2	Aroclor 1016	<110	~~<11~~	U
11104-28-2	Aroclor 1221	<110	~~<11~~	U
11141-16-5	Aroclor 1232	<110	~~<11~~	U
53469-21-9	Aroclor 1242	<110	~~<11~~	U
12672-29-6	Aroclor 1248	<110	~~<11~~	U
11097-69-1	Aroclor 1254	<110	~~<11~~	U
11096-82-5	Aroclor 1260	<110	~~<11~~	U

(U)

JB

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1A
PCB ANALYSIS DATA SHEET

NYSDEC SAMPLE NO. T15-1

Lab Name: Upstate Labs Inc. Contract:

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH13

Matrix: Soil Lab Sample ID: 32399044

Sample wt.: 30 (g) Lab File ID: PA5387

% Moisture: 16 Decanted: NO Date Received: 11/18/99

Extraction: shaker Date Extracted: 11/23/99

Conc Extract Vol.: 10000 ~~1000~~ (uL) Date Analyzed: 12/17/99

Injection Vol.: 2 (uL) Time Analyzed: 05:39PM

GPC Cleanup: No pH: Dilution Factor: 50

Instr. ID: ULI 9.0 Sulfur Cleanup: Yes

CAS NO.	COMPOUND	CONCENTRATION UNITS ug/Kg	Q
12674-11-2	Aroclor 1016	100 ~~<10~~	U
11104-28-2	Aroclor 1221	100 ~~<10~~	U
11141-16-5	Aroclor 1232	100 ~~<10~~ UJ	U
53469-21-9	Aroclor 1242	100 ~~<10~~	U
12672-29-6	Aroclor 1248	100 ~~<10~~	U
11097-69-1	Aroclor 1254	1480 ~~0.80~~ J	[illegible]
11096-82-5	Aroclor 1260	100 ~~<10~~ UJ	U

JJB JJB

1A

PCB ANALYSIS DATA SHEET

NYSDEC SAMPLE NO. T15-2

Lab Name: Upstate Labs Inc. Contract:

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH13

Matrix: Soil Lab Sample ID: 32399045

Sample wt.: 30 (g) Lab File ID: PA5387

% Moisture: 16 Decanted: NO Date Received: 11/18/99

Extraction: shaker Date Extracted: 11/23/99

Conc Extract Vol.: ~~1000~~ 10000 (uL) Date Analyzed: 12/17/99

Injection Vol.: 2 (uL) Time Analyzed: 06:23PM

GPC Cleanup: No pH: Dilution Factor: 50

Instr. ID: ULI 9.0 Sulfur Cleanup: Yes

CAS NO.	COMPOUND	CONCENTRATION UNITS ug/Kg	Q
12674-11-2	Aroclor 1016	<100 ~~<10~~	U
11104-28-2	Aroclor 1221	<100 ~~<10~~	U
11141-16-5	Aroclor 1232	<100 ~~<10~~ UJ	U
53469-21-9	Aroclor 1242	<100 ~~<10~~	U
12672-29-6	Aroclor 1248	<100 ~~<10~~	U
11097-69-1	Aroclor 1254	1120 ~~0.64~~ J	X.C.
11096-82-5	Aroclor 1260	<100 <10 UJ	U

JB

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DATA USABILITY SUMMARY REPORT

for

BEARDSLEY DESIGN ASSOCIATES

431 EAST FAYETTE STREET

EAST SYRACUSE, NY 13202

FORMER BROWN MANUFACTURING SITE
SDG CH13
Sampled 11/15/99, 11/16/99, 11/18/99

SOIL SAMPLES for TPH

T7-1	(32099001)	T7-2	(32099002)	T7-3	(32099003)
T7-4	(32099004)	T8-1	(32099005)	T8-oil	(32199029)
T8-2	(32199030)	T8-2dup	(32199031)	T9-1	(32199032)
T12-1	(32399037)	T12-2	(32399038)	T12-3	(32399039)
T13-1	(32399040)	T13-2	(32399041)	T14-1	(32399042)
T14-2	(32399043)	T15-1	(32399044)	T15-2	(32399045)

DATA ASSESSMENT

A TPH data package containing analytical results for seventeen soil samples and one oil was received from Beardsley Design Associates on 16Nov01. The ASP deliverables package included formal reports, raw data, the necessary QC, and supporting information. The samples, taken from the Former Brown Manufacturing site, were identified by Chain of Custody documents and trackable through the work of Upstate Laboratories, Inc., the laboratory contracted for analysis. Analyses, performed according to NYS DOH Method 310.13, addressed determinations of gasoline, Fuel Oil #1, Fuel Oil #2, lube oil and unidentified hydrocarbons. Laboratory data was evaluated according to the Quality Assurance / Quality Control Requirements of the New York State Department of Environmental Conservation's Analytical Services Protocol (ASP), September 1989, Rev. 6/2000, and the cited method.

The TPH results obtained from T7-1, T7-2, T9-1, T12-1, T12-2, T12-3, T13-1, T13-2, T14-1, T14-2, T15-1 and T15-2 have been qualified as estimations due to poor calibration performance.

Positive TPH results from T7-1, T7-2, T7-4, T8-1, T8-2, T8-2dup and T14-2; and all data obtained from T8-oil, T12-2, T12-3 and T15-1 have been qualified as estimations due to unacceptable surrogate standard recoveries.

CORRECTNESS AND USABILITY

A petroleum fingerprint was present in the chromatography of T8-oil and identified as an unknown hydrocarbon. A similar elution pattern was identified as lube oil in other program samples. The Form 1 of T8-oil has been edited to indicate the presence of lube oil.

A late eluting peak was present in the chromatography of T7-4, T13-2, T14-1 and T14-2. The retention time and shape of this peak suggests that it might represent an instrument artifact. The positive lube oil results reported from T7-4, T13-2, T14-1 and T14-2 have been removed from Form 1.

In addition to lube oil, which was reported, the chromatography of T8-1, T8-oil, T8-2, T8-2dup, T13-1 indicated the presence of Fuel Oil #2. The fuel oil was identified as an unknown. The Form 1's of these samples have been edited to indicate the presence of Fuel Oil #2.

Reported data should be considered technically defensible in its present form. Reported concentrations that are felt to provide a usable estimation of the conditions being measured have been flagged "J" or "UJ". Estimated data should be used with caution. A detailed discussion of the review process follows.

Two facts should be considered by all data users. No compound concentration, even if it has passed all QC testing, can be guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error. Secondly. DATAVAL, Inc. guarantees the quality of this data assessment. However, DATAVAL, Inc. does not warrant any interpretation or utilization of this data by a third party.

Reviewer's signature: James B. Baldwin Date: 1/21/02

SAMPLE HISTORY

Analyte concentrations can deteriorate with time due to chemical instability, bacterial degradation or volatility. Samples that are not properly preserved, or are not analyzed within established holding times, may no longer be considered representative. Holding times are calculated from the time of sample collection. Samples must remain chilled to 4°C from the time of collection. Aqueous samples must be extracted within 7 days. The extraction of soil samples must begin within 14 days of collection. Analyses must be completed within 40 days of extraction. Each sample delivery group, containing up to 20 samples, should include a field duplicate, a matrix spike, matrix spike duplicate, and a rinsate blank.

This sample delivery group, which included seventeen soils and one sample of oil that was collected with groundwater, was collected from the Former Brown Manufacturing site between 15Nov99 and 18Nov99. Five samples collected on 15Nov99, four collected on 16Nov99 and nine collected on 18Nov99 were delivered to the laboratory, after hours, on the day of collection. Each cooler of samples arrived intact, with custody seals in place. A temperature of 6.9°C was obtained from each sample cooler at the time of laboratory receipt.

Sample extractions were performed on 19Nov99 and 23Nov99. The analysis of each sample was completed by 27Dec99. Program holding time limitations were satisfied.

BLANKS

Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Method blanks are analyzed to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

Three method blanks were analyzed with this group of samples. The chromatography of each blank was free of fingerprint patterns indicative of the targeted petroleum products.

CALIBRATION

Requirements for instrument calibration are established to ensure that laboratory equipment is capable of producing accurate, quantitative data. Initial calibrations demonstrate a range through which measurements may be made. Continuing calibration standards verify instrument stability.

The initial instrument calibration was performed on 28Jan99. Fuel oil concentrations of 10, 50, 100, 500 and 5000 mg/l were included. Although calibration performance was not summarized, an acceptable degree of instrument linearity was demonstrated. Correlation coefficients of 8%, 18% and 14% RSD were calculated for the three fuel oil peaks used for quantitation. Lube oil, kerosene and gasoline standards of 1000 mg/l were also analyzed to demonstrate their chromatographic fingerprint patterns.

It is noted that the reported instrument calibrations allowed detection limits to be established. Beyond that, the targeted petroleum products were identified by their chromatographic fingerprints. When present in samples, targeted petroleum products were identified and reported as present. Quantitation was not attempted.

Calibration verification standards were analyzed to bracket each twelve hour period of instrument operation. One exception is noted. Samples analyzed on 27Dec99 were preceded by a calibration check at 09:40. Another standard was not run until 07:51 on 28Dec99. Because Method 310-13 only specifically requires a single standard, data from T7-3, T7-4, T8-1, T8-2 and T8-2DP has been left unqualified. Sample T9-1 was not analyzed until 22:11, outside the 12 hour window defined by the preceding calibration standard. Results reported from T9-1 have been qualified as estimations.

When compared to the initial calibration, unacceptable shifts were observed in the response of fuel oil during the calibration checks performed at 09:25 on 20Dec99 (19%), 09:51 on 21Dec99 (17%), 14:36 on 21Dec99 (31%) and 08:37 on 23Dec99 (28%). Based on this performance, the TPH results reported from T12-1, T12-2, T12-3, T13-1, T13-2, T14-1, T14-2, T15-1, T15-2, T7-1 and T7-2 have been qualified as estimations.

SURROGATES

Each sample, blank and standard is spiked with surrogate compounds prior to analysis. The structures of surrogates are similar to analytes of interest, but they are not normally found in environmental samples. Surrogate recoveries are monitored to evaluate overall laboratory performance and the efficiency of laboratory technique.

Each sample was spiked with 0.20 mg of dodecane. In most cases, these surrogate additions were not recovered successfully. Low recoveries were reported from T8-oil (63%), T12-2 (68%), T12-3 (63%) and T15-1 (61%). High surrogate recoveries were reported from T7-1 (139%), T7-2 (153%), T7-4 (150%), T8-1 (165%), T8-2 (164%), T8-2dup (147%) and T14-2 (131%). Based on this performance, the positive TPH results reported from T7-1, T7-2, T7-4, T8-1, T8-2, T8-2dup and T14-2; and all data obtained from T8-oil, T12-2, T12-3 and T15-1 has been qualified as estimations.

MATRIX SPIKES / MATRIX SPIKE DUPLICATES / MATRIX SPIKED BLANKS

Matrix spiking refers to the addition of known analyte concentrations to a sample, prior to analysis. Analyte recoveries provide an indication of laboratory accuracy. The analysis of a duplicate spiked aliquot provides a measurement of precision.

1000 mg/kg of fuel oil was added to two portions of T8-2. The recovery of these additions demonstrated an acceptable level of measurement accuracy. Although not reported by the laboratory, this pair of measurements also demonstrated poor measurement precision (44% RPD).

This performance alone does not necessitate data qualifications. Acceptable fuel oil recoveries were also obtained from two spiked blanks.

DUPLICATES

Two aliquots of the same sample are processed separately through all aspects of sample preparation and analysis. Results produced by the analysis of this pair of samples are compared as a measurement of precision. Poor precision, may be indicative of sample non-homogeneity, method defects, or poor laboratory technique.

Field split duplicates of T8-2 were included in this group of samples. Similar petroleum fingerprints were produced by both samples.

SUMMARY OF QUALIFIED DATA

FORMER BROWN MANUFACTURING SITE — SAMPLED 11/15/99 - 11/18/99

		CALIBRATE	SURROGATES	LUBE OIL	ARTIFACT LUBE OIL	FUEL OIL 2
T7-1	(32099001)	ALL J/UJ	ALL J/UJ			
T7-2	(32099002)	ALL J/UJ	ALL J/UJ			
T7-3	(32099003)					
T7-4	(32099004)				LUBE ND	
T8-1	(32099005)		POS J/UJ			PRESENT
T8-oil	(32199029)		ALL J/UJ	PRESENT		PRESENT
T8-2	(32199030)		POS J/UJ			PRESENT
T8-2dup	(32199031)		POS J/UJ			PRESENT
T9-1	(32199032)	ALL J/UJ				
T12-1	(32399037)	ALL J/UJ				
T12-2	(32399038)	ALL J/UJ	ALL J/UJ			
T12-3	(32399039)	ALL J/UJ	ALL J/UJ			
T13-1	(32399040)	ALL J/UJ				PRESENT
T13-2	(32399041)	ALL J/UJ			LUBE ND	
T14-1	(32399042)	ALL J/UJ			LUBE ND	
T14-2	(32399043)	ALL J/UJ	POS J/UJ		LUBE ND	
T15-1	(32399044)	ALL J/UJ	ALL J/UJ			
T15-2	(32399045)	ALL J/UJ				

1A
TPH ANALYSIS DATA SHEET

T7-1

Lab Name: Upstate Labs Inc. Contract:

Lab Code: 10170 Case No.: SDG No.: CH13

Matrix: SOIL Lab Sample ID: 32099001

Sample wt.: 30g () Lab File ID: PA5381

% Moisture: 17 Decanted: Date Received: 11/15/99

Extraction: shaker Date Extracted: 11/19/99

Conc Extract Vol.: 10 (ML) Date Analyzed: 12/23/99

Injection Vol.: 2 (uL) Time Analyzed: 11:41AM

GPC Cleanup: No pH: Dilution Factor:

Instr. ID: 53 Sulfur Cleanup:

COMPOUND	CONCENTRATION UNITS mg/Kg	QUALIFIER
GASOLINE	ND	U
FUEL OIL #1 (KEROSENE)	<4.0	U } UJ
FUEL OIL #2 (DIESEL)	<4.0	U
LUBE OIL	D	J
UNIDENTIFIABLE HOCS.	ND	U UJ
TOTAL HYDROCARBONS	D	J

JB

0001282

1A
TPH ANALYSIS DATA SHEET

T7-2

Lab Name: Upstate Labs Inc. Contract:

Lab Code: 10170 Case No.: SDG No.: CH13

Matrix: SOIL Lab Sample ID: 32099002

Sample wt.: 30g () Lab File ID: PA5381

% Moisture: 16 Decanted: Date Received: 11/15/99

Extraction: shaker Date Extracted: 11/19/99

Conc Extract Vol.: 10 (ML) Date Analyzed: 12/23/99

Injection Vol.: 2 (uL) Time Analyzed: 01:13PM

GPC Cleanup: No pH: Dilution Factor:

Instr. ID: 53 Sulfur Cleanup:

COMPOUND	CONCENTRATION UNITS mg/Kg	QUALIFIER
GASOLINE	ND	U
FUEL OIL #1 (KEROSENE)	<3.9	U UJ
FUEL OIL #2 (DIESEL)	<3.9	U
LUBE OIL	D	J
UNIDENTIFIABLE HOCS.	ND	U UJ
TOTAL HYDROCARBONS	D	J

JB

1A
TPH ANALYSIS DATA SHEET

T7-3

Lab Name: Upstate Labs Inc. Contract:

Lab Code: 10170 Case No.: SDG No.: CH13

Matrix: SOIL Lab Sample ID: 32099003

Sample wt.: 30g () Lab File ID: PA5381

% Moisture: 12 Decanted: Date Received: 11/15/99

Extraction: shaker Date Extracted: 11/19/99

Conc Extract Vol.: 10 (ML) Date Analyzed: 12/27/99

Injection Vol.: 2 (uL) Time Analyzed: 10:44AM

GPC Cleanup: No pH: Dilution Factor:

Instr. ID: 53 Sulfur Cleanup:

COMPOUND	CONCENTRATION UNITS mg/Kg	QUALIFIER
GASOLINE	ND	U
FUEL OIL #1 (KEROSENE)	<3.8	U
FUEL OIL #2 (DIESEL)	<3.8	U
LUBE OIL	D	J
UNIDENTIFIABLE HOCS.	ND	U
TOTAL HYDROCARBONS	D	J

0001292

1A
TPH ANALYSIS DATA SHEET

T7-4

Lab Name: Upstate Labs Inc. Contract:

Lab Code: 10170 Case No.: SDG No.: CH13

Matrix: SOIL Lab Sample ID: 32099004

Sample wt.: 30g () Lab File ID: PA5381

% Moisture: 15 Decanted: Date Received: 11/15/99

Extraction: shaker Date Extracted: 11/19/99

Conc Extract Vol.: 10 (ML) Date Analyzed: 12/27/99

Injection Vol.: 2 (uL) Time Analyzed: 11:54AM

GPC Cleanup: No pH: Dilution Factor:

Instr. ID: 53 Sulfur Cleanup:

COMPOUND	CONCENTRATION UNITS mg/Kg	QUALIFIER
GASOLINE	ND	U
FUEL OIL #1 (KEROSENE)	<3.9	U
FUEL OIL #2 (DIESEL)	<3.9	U
LUBE OIL	~~D~~ ND	~~J~~ U
UNIDENTIFIABLE HOCS.	ND	U
TOTAL HYDROCARBONS	~~D~~ ND	~~J~~ U

JJB

0001297

1A
TPH ANALYSIS DATA SHEET

T8-1

Lab Name: Upstate Labs Inc. Contract:

Lab Code: 10170 Case No.: SDG No.: CH13

Matrix: SOIL Lab Sample ID: 32099005

Sample wt.: 30g () Lab File ID: PA5381

% Moisture: 28 Decanted: Date Received: 11/15/99

Extraction: shaker Date Extracted: 11/19/99

Conc Extract Vol.: 10 (ML) Date Analyzed: 12/27/99

Injection Vol.: 2 (uL) Time Analyzed: 01:05PM

GPC Cleanup: No pH: Dilution Factor:

Instr. ID: 53 Sulfur Cleanup:

COMPOUND	CONCENTRATION UNITS mg/Kg	QUALIFIER
GASOLINE	ND	U
FUEL OIL #1 (KEROSENE)	<4.6	U
FUEL OIL #2 (DIESEL)	~~<4.6~~ D	~~U~~ J
LUBE OIL	D	~~J~~ J
UNIDENTIFIABLE HOCS.	~~D~~ ND	~~J~~ U
TOTAL HYDROCARBONS	D	~~J~~ J

JRS

0001303

1A
TPH ANALYSIS DATA SHEET

T8-OIL

Lab Name: Upstate Labs Inc. Contract:

Lab Code: 10170 Case No.: SDG No.: CH-13

Matrix OIL Lab Sample ID: 321-29

Sample wt.: .05 G () Lab File ID: PA5383

% Moisture: N/A Decanted: NO Date Received: 11/16/99

Extraction: Date Extracted: 11/19/99

Conc Extract Vol.: 5 (ML) Date Analyzed: 11/29/99

Injection Vol.: 2 (uL) Time Analyzed: 16:02

GPC Cleanup: No pH: Dilution Factor: N/A

Instr. ID: 53 Sulfur Cleanup: N/A

CAS NO.	COMPOUND	CONCENTRATION UNITS mg/kg	Q
	GASOLINE	N.D.	U
	FUEL OIL #1 (KEROSENE)	<1000	U
	FUEL OIL #2 (DIESEL)	~~<1000~~ D	J
	LUBE OIL	~~N.D~~ D	J
	UNIDENTIFIABLE HOCS.	~~D~~ N.D	U
	TOTAL HYDROCARBONS	D.	J

0001308

1A
TPH ANALYSIS DATA SHEET

T8-2

Lab Name: Upstate Labs Inc. Contract:

Lab Code: 10170 Case No.: SDG No.: CH13

Matrix: SOIL Lab Sample ID: 32199030

Sample wt.: 30g () Lab File ID: PA5381

% Moisture: 15 Decanted: Date Received: 11/16/99

Extraction: shaker Date Extracted: 11/19/99

Conc Extract Vol.: 10 (ML) Date Analyzed: 12/27/99

Injection Vol.: 2 (uL) Time Analyzed: 02:16PM

GPC Cleanup: No pH: Dilution Factor:

Instr. ID: 53 Sulfur Cleanup:

COMPOUND	CONCENTRATION UNITS mg/Kg	QUALIFIER
GASOLINE	ND	U
FUEL OIL #1 (KEROSENE)	<3.8	U
FUEL OIL #2 (DIESEL)	~~<3.8~~ D	~~U~~ J
LUBE OIL	D	~~J~~ J
UNIDENTIFIABLE HOCS.	~~D~~ N.D	~~J~~ U
TOTAL HYDROCARBONS	D	~~J~~ J

FORM 1 TPH

1A
TPH ANALYSIS DATA SHEET

T8-2DP

Lab Name: Upstate Labs Inc. Contract:

Lab Code: 10170 Case No.: SDG No.: CH13

Matrix: SOIL Lab Sample ID: 32199031

Sample wt.: 30g () Lab File ID: PA5381

% Moisture: 20 Decanted: Date Received: 11/16/99

Extraction: shaker Date Extracted: 11/19/99

Conc Extract Vol.: 10 (ML) Date Analyzed: 12/27/99

Injection Vol.: 2 (uL) Time Analyzed: 07:40PM

GPC Cleanup: No pH: Dilution Factor:

Instr. ID: 53 Sulfur Cleanup:

COMPOUND	CONCENTRATION UNITS mg/Kg	QUALIFIER
GASOLINE	ND	U
FUEL OIL #1 (KEROSENE)	<4.1	U
FUEL OIL #2 (DIESEL)	~~<4.1~~ D	~~U~~ J
LUBE OIL	D	~~J~~ J
UNIDENTIFIABLE HOCS.	~~D~~ MD	~~J~~ U
TOTAL HYDROCARBONS	D	~~J~~ J

3V3

1A
TPH ANALYSIS DATA SHEET

T9-1

Lab Name: Upstate Labs Inc. Contract:

Lab Code: 10170 Case No.: SDG No.: CH13

Matrix: SOIL Lab Sample ID: 32199032

Sample wt.: 30g () Lab File ID: PA5381

% Moisture: 20 Decanted: Date Received: 11/16/99

Extraction: shaker Date Extracted: 11/19/99

Conc Extract Vol.: 10 (ML) Date Analyzed: 12/27/99

Injection Vol.: 2 (uL) Time Analyzed: 10:11PM

GPC Cleanup: No pH: Dilution Factor:

Instr. ID: 53 Sulfur Cleanup:

COMPOUND	CONCENTRATION UNITS mg/Kg	QUALIFIER
GASOLINE	ND	U
FUEL OIL #1 (KEROSENE)	<4.1	U UJ
FUEL OIL #2 (DIESEL)	<4.1	U
LUBE OIL	D	J J
UNIDENTIFIABLE HOCS.	ND	U UJ
TOTAL HYDROCARBONS	D	J J

JJB

0001323

1A
TPH ANALYSIS DATA SHEET

T12-1

Lab Name: Upstate Labs Inc. Contract:

Lab Code: 10170 Case No.: SDG No.: CH13

Matrix: SOIL Lab Sample ID: 32399037

Sample wt.: 30g () Lab File ID: PA5389

% Moisture: 20 Decanted: Date Received: 11/18/99

Extraction: shaker Date Extracted: 11/23/99

Conc Extract Vol.: 10 (ML) Date Analyzed: 12/20/99

Injection Vol.: 2 (uL) Time Analyzed: 11:33AM

GPC Cleanup: No pH: Dilution Factor:

Instr. ID: 53 Sulfur Cleanup:

COMPOUND	CONCENTRATION UNITS mg/Kg	QUALIFIER
GASOLINE	ND	U J
FUEL OIL #1 (KEROSENE)	<4.1	U J
FUEL OIL #2 (DIESEL)	<4.1	U J
LUBE OIL	D	J
UNIDENTIFIABLE HOCS.	ND	U J
TOTAL HYDROCARBONS	D	J

JMB

0001328

1A
TPH ANALYSIS DATA SHEET

T12-2

Lab Name: Upstate Labs Inc. Contract:

Lab Code: 10170 Case No.: SDG No.: CH13

Matrix: SOIL Lab Sample ID: 32399038

Sample wt.: 30g () Lab File ID: PA5389

% Moisture: 11 Decanted: Date Received: 11/18/99

Extraction: shaker Date Extracted: 11/23/99

Conc Extract Vol.: 10 (ML) Date Analyzed: 12/20/99

Injection Vol.: 2 (uL) Time Analyzed: 12:37PM

GPC Cleanup: No pH: Dilution Factor:

Instr. ID: 53 Sulfur Cleanup:

COMPOUND	CONCENTRATION UNITS mg/Kg	QUALIFIER
GASOLINE	ND	U
FUEL OIL #1 (KEROSENE)	<3.7	U
FUEL OIL #2 (DIESEL)	<3.7	U
LUBE OIL	D	J
UNIDENTIFIABLE HOCS.	D	J
TOTAL HYDROCARBONS	D	J

1A
TPH ANALYSIS DATA SHEET

T12-3

Lab Name: Upstate Labs Inc. Contract:

Lab Code: 10170 Case No.: SDG No.: CH13

Matrix: SOIL Lab Sample ID: 32399039

Sample wt.: 30g () Lab File ID: PA5389

% Moisture: 15 Decanted: Date Received: 11/18/99

Extraction: shaker Date Extracted: 11/23/99

Conc Extract Vol.: 10 (ML) Date Analyzed: 12/20/99

Injection Vol.: 2 (uL) Time Analyzed: 01:39PM

GPC Cleanup: No pH: Dilution Factor:

Instr. ID: 53 Sulfur Cleanup:

COMPOUND	CONCENTRATION UNITS mg/Kg	QUALIFIER
GASOLINE	ND	U
FUEL OIL #1 (KEROSENE)	<3.9	U
FUEL OIL #2 (DIESEL)	<3.9	U
LUBE OIL	D	J
UNIDENTIFIABLE HOCS.	D	J
TOTAL HYDROCARBONS	D	J

0001338

1A
TPH ANALYSIS DATA SHEET

T13-1

Lab Name: Upstate Labs Inc. Contract:

Lab Code: 10170 Case No.: SDG No.: CH13

Matrix: SOIL Lab Sample ID: 32399040

Sample wt.: 30g () Lab File ID: PA5389

% Moisture: 6 Decanted: Date Received: 11/18/99

Extraction: shaker Date Extracted: 11/23/99

Conc Extract Vol.: 10 (ML) Date Analyzed: 12/20/99

Injection Vol.: 2 (uL) Time Analyzed: 02:39PM

GPC Cleanup: No pH: Dilution Factor:

Instr. ID: 53 Sulfur Cleanup:

COMPOUND	CONCENTRATION UNITS mg/Kg	QUALIFIER
GASOLINE	ND	~~U~~ UJ
FUEL OIL #1 (KEROSENE)	<3.5	~~U~~ UJ
FUEL OIL #2 (DIESEL)	~~<3.5~~ D	~~U~~ J
LUBE OIL	D	~~J~~ J
UNIDENTIFIABLE HOCS.	~~D~~ ND	~~J~~ UJ
TOTAL HYDROCARBONS	D	~~J~~ J

JB

0001343

1A
TPH ANALYSIS DATA SHEET

T13-2

Lab Name: Upstate Labs Inc. Contract:

Lab Code: 10170 Case No.: SDG No.: CH13

Matrix: SOIL Lab Sample ID: 32399041

Sample wt.: 30g () Lab File ID: PA5389

% Moisture: 16 Decanted: Date Received: 11/18/99

Extraction: shaker Date Extracted: 11/23/99

Conc Extract Vol.: 10 (ML) Date Analyzed: 12/20/99

Injection Vol.: 2 (uL) Time Analyzed: 04:20PM

GPC Cleanup: No pH: Dilution Factor:

Instr. ID: 53 Sulfur Cleanup:

COMPOUND	CONCENTRATION UNITS mg/Kg	QUALIFIER
GASOLINE	ND	~~U~~
FUEL OIL #1 (KEROSENE)	<3.9	~~U~~ U J
FUEL OIL #2 (DIESEL)	<3.9	~~U~~
LUBE OIL	~~D~~ ND	~~J~~ U J
UNIDENTIFIABLE HOCS.	ND	~~U~~ U J
TOTAL HYDROCARBONS	~~D~~ ND	~~J~~ U J

YB

0001348

FORM 1 TPH

1A
TPH ANALYSIS DATA SHEET

T14-1

Lab Name: Upstate Labs Inc. Contract:

Lab Code: 10170 Case No.: SDG No.: CH13

Matrix: SOIL Lab Sample ID: 32399042

Sample wt.: 30g () Lab File ID: PA5389

% Moisture: 38 Decanted: Date Received: 11/18/99

Extraction: shaker Date Extracted: 11/23/99

Conc Extract Vol.: 10 (ML) Date Analyzed: 12/20/99

Injection Vol.: 2 (uL) Time Analyzed: 05:47PM

GPC Cleanup: No pH: Dilution Factor:

Instr. ID: 53 Sulfur Cleanup:

COMPOUND	CONCENTRATION UNITS mg/Kg	QUALIFIER
GASOLINE	ND	~~D~~
FUEL OIL #1 (KEROSENE)	<5.3	~~U~~ UJ
FUEL OIL #2 (DIESEL)	<5.3	~~U~~
LUBE OIL	~~D~~ ND	~~U~~ UJ
UNIDENTIFIABLE HOCS.	ND	~~U~~ UJ
TOTAL HYDROCARBONS	~~D~~ ND	~~U~~ UJ

JJS

0001353

FORM 1 TPH

1A
TPH ANALYSIS DATA SHEET

T14-2

Lab Name: Upstate Labs Inc. Contract:

Lab Code: 10170 Case No.: SDG No.: CH13

Matrix: SOIL Lab Sample ID: 32399043

Sample wt.: 30g () Lab File ID: PA5389

% Moisture: 27 Decanted: Date Received: 11/18/99

Extraction: shaker Date Extracted: 11/23/99

Conc Extract Vol.: 10 (ML) Date Analyzed: 12/21/99

Injection Vol.: 2 (uL) Time Analyzed: 10:52AM

GPC Cleanup: No pH: Dilution Factor:

Instr. ID: 53 Sulfur Cleanup:

COMPOUND	CONCENTRATION UNITS mg/Kg	QUALIFIER
GASOLINE	ND	~~U~~ }
FUEL OIL #1 (KEROSENE)	<4.5	~~U~~ } UJ
FUEL OIL #2 (DIESEL)	<4.5	~~U~~ }
LUBE OIL	~~D~~ ND	~~U~~ UJ
UNIDENTIFIABLE HOCS.	ND	~~U~~ UJ
TOTAL HYDROCARBONS	~~D~~ ND	~~U~~ UJ

0001358

1A
TPH ANALYSIS DATA SHEET

T15-1

Lab Name: Upstate Labs Inc. Contract:

Lab Code: 10170 Case No.: SDG No.: CH13

Matrix: SOIL Lab Sample ID: 32399044

Sample wt.: 30g () Lab File ID: PA5389

% Moisture: 16 Decanted: Date Received: 11/18/99

Extraction: shaker Date Extracted: 11/23/99

Conc Extract Vol.: 10 (ML) Date Analyzed: 12/21/99

Injection Vol.: 2 (uL) Time Analyzed: 11:54AM

GPC Cleanup: No pH: Dilution Factor:

Instr. ID: 53 Sulfur Cleanup:

COMPOUND	CONCENTRATION UNITS mg/Kg	QUALIFIER
GASOLINE	ND	U
FUEL OIL #1 (KEROSENE)	<3.9	U
FUEL OIL #2 (DIESEL)	<3.9	U
LUBE OIL	D	J
UNIDENTIFIABLE HOCS.	D	J
TOTAL HYDROCARBONS	D	J

0001363

1A
TPH ANALYSIS DATA SHEET

T15-2

Lab Name: Upstate Labs Inc. Contract:

Lab Code: 10170 Case No.: SDG No.: CH13

Matrix: SOIL Lab Sample ID: 32399045

Sample wt.: 30g () Lab File ID: PA5389

% Moisture: 16 Decanted: Date Received: 11/18/99

Extraction: shaker Date Extracted: 11/23/99

Conc Extract Vol.: 10 (ML) Date Analyzed: 12/21/99

Injection Vol.: 2 (uL) Time Analyzed: 01:15PM

GPC Cleanup: No pH: Dilution Factor:

Instr. ID: 53 Sulfur Cleanup:

COMPOUND	CONCENTRATION UNITS mg/Kg	QUALIFIER
GASOLINE	ND	U
FUEL OIL #1 (KEROSENE)	<3.9	U
FUEL OIL #2 (DIESEL)	<3.9	U
LUBE OIL	D	J
UNIDENTIFIABLE HOCS.	D	J
TOTAL HYDROCARBONS	D	J

0001369

DATA USABILITY SUMMARY REPORT

for

BEARDSLEY DESIGN ASSOCIATES

431 EAST FAYETTE STREET

EAST SYRACUSE, NY 13202

FORMER BROWN MANUFACTURING SITE
SDG CH14
Sampled 11/17/99

SOIL SAMPLES for SEMIVOLATILE ORGANICS

T10-1 (32299002) T11-1 (32299006)

DATA ASSESSMENT

A semivolatile organics data package containing analytical results for two soil samples was received from Beardsley Design Associates on 16Nov01. The ASP deliverables package included formal reports, raw data, the necessary QC, and supporting information. The samples, taken from the Former Brown Manufacturing site, were identified by Chain of Custody documents and trackable through the work of Upstate Laboratories, Inc., the laboratory contracted for analysis. Analyses, performed according to SW-846 Method 8270, addressed Target Compound List analytes. Laboratory data was evaluated according to the Quality Assurance / Quality Control Requirements of the New York State Department of Environmental Conservation's Analytical Services Protocol (ASP), September 1989, Rev. 6/2000. When ASP protocol was not followed, the current EPA Region II Functional Guidelines (SPO NO. HW-6, Rev. #8, Jan. 1992, CLP Organics Data Review and Preliminary Review), was used as a technical reference.

The pentachlorophenol results reported from both program samples have been qualified as estimations due to poor calibration performance.

Aldol Condensation products and a large number of "unknowns" were reported as Tentatively Identified Compounds (TIC) from this group of samples. When present, they have been removed from Form 1F.

Internal standards #5 and/or #6 produced a low instrument response in samples T10-1 and T11-1. Analytes dependant upon the response of these internal standards have been qualified as estimations in the affected samples.

The results reported from T10-1 and T11-1 have been qualified as estimations due to matrix spiking performance. Matrix spiked samples were not prepared. Unacceptably low recoveries were reported for five of the eleven analyte additions to an associated spiked blank.

CORRECTNESS AND USABILITY

The Tentatively Identified Compounds (TIC) reported from both program samples included identifications that were not conclusively supported by the library searches supplied by the laboratory. The affected identifications have been edited on Form 1F.

Reported data should be considered technically defensible in its present form. Reported concentrations that are felt to provide a usable estimation of the conditions being measured have been flagged "J" or "UJ". Data that is felt to be unreliable has been identified with a single red line and flagged "R". Rejected data should not be included in data tables. Estimated data should be used with caution. A detailed discussion of the review process follows.

Two facts should be considered by all data users. No compound concentration, even if it has passed all QC testing, can be guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error. Secondly. DATAVAL, Inc. guarantees the quality of this data assessment. However, DATAVAL, Inc. does not warrant any interpretation or utilization of this data by a third party.

Reviewer's signature: James B. Baldwin Date: 1/21/02

SAMPLE HISTORY

Analyte concentrations can deteriorate with time due to chemical instability, bacterial degradation or volatility. Samples that are not properly preserved, or are not analyzed within established holding times, may no longer be considered representative. Holding times are calculated from the time of sample collection. Samples must remain chilled to 4°C from the time of collection. Aqueous samples must be extracted within 7 days. The extraction of soil samples must begin within 14 days of collection. Analyses must be completed within 40 days of extraction. Each sample delivery group, containing up to 20 samples, should include a field duplicate, a matrix spike, matrix spike duplicate, and a rinsate blank.

This sample delivery group, which included two soil samples, was collected from the Former Brown Manufacturing site on 17Nov99. Both samples were delivered to the laboratory, after hours, on the day of collection. The sample cooler arrived intact, properly chilled, with a custody seal in place. A cooler temperature of 6.9°C was recorded by the laboratory at the time of receipt.

Sample extractions were performed on 19Nov99. The analysis of each sample was completed on 16Dec99. Program holding time limitations were satisfied.

BLANKS

Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Method blanks are analyzed to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank. Any sample concentration less than 5 times the level determined in a blank must be qualified. The qualification criteria is extended to ten times the concentration observed in blanks for common laboratory artifacts. These include phthalate esters.

One method blank was analyzed with this group of samples. Although a trace of bis(2-ethylhexyl)phthalate was detected in the method blank, a similar artifact was not detected in program samples.

Aldol Condensation products (4-methyl-3-penten-2-one, 4-hydroxy-4-methyl-2-pentanone) and a large number of unidentified TIC's were also present in the method blank. Similar artifacts have been removed from Form 1F of both samples.

MS TUNING

Mass spectrometer tuning and performance criteria are established to ensure sufficient mass resolution and sensitivity to accurately detect and identify targeted analytes. Verification is accomplished using a certified standard.

An Instrument Performance Check Standard of DFTPP was analyzed prior to each analytical sequence and during every 12 hour period of instrument operation. An Instrument Performance Check Form is

present for each DFTPP evaluation. The DFTPP tunes associated with this group of samples satisfied the program acceptance criteria.

CALIBRATION

Requirements for instrument calibration are established to ensure that laboratory equipment is capable of producing accurate, quantitative data. Initial calibrations demonstrate a range through which measurements may be made. Continuing calibration standards verify instrument stability.

The required levels of initial calibration were performed on 09Dec99. Standards of 20, 50, 80, 120 and 160 ng were included. With the exception of pentachlorophenol, the calibration curve for each analyte demonstrated the required levels of instrument response and an acceptable degree of linearity. Pentachlorophenol standards demonstrated poor linearity. The lowest pentachlorophenol standard also failed to produce the required minimum level of response. Based on this performance, the negative pentachlorophenol result reported from both samples must be considered unreliable. This information should not be included in data tables.

A continuing calibration verification was completed prior to each twelve hour period of instrument operation. These checks demonstrated an acceptable level of instrument stability.

SURROGATES

Each sample, blank and standard is spiked with surrogate compounds prior to analysis. The structures of surrogates are similar to analytes of interest, but they are not normally found in environmental samples. Surrogate recoveries are monitored to evaluate overall laboratory performance and the efficiency of laboratory technique.

Although the Surrogate Summary Form required correction, the changes had no affect on the interpretation of reported data.
A low recovery was reported for each of the surrogates added to T11-1. However, this sample was diluted 1:10, following the addition of surrogates. Because the low recoveries may be attributed to sample dilution, data reported from T11-1 has been left unqualified.

Although the 2,4,6-tribromophenol addition to T10-1 was completely unrecovered, the remaining surrogate additions to this sample were recovered successfully. Because no more than one acid surrogate and one base/neutral surrogate produced poor recoveries, the program acceptance criteria was satisfied. Data qualifications are not required.

Both samples were reanalyzed, but at a higher dilution. The low internal standard response reported from these samples may also be attributed to sample dilution. The phenanthrene concentration obtained from T10-1DL is the only diluted result that should be

included in data tables. The phenanthrene result has been left unqualified.

INTERNAL STANDARDS

Internal standards are added to each sample, blank and standard just prior to injection. Analyte concentrations are calculated relative to the response of a specific internal standard. Internal standard performance criteria ensure that GC/MS sensitivity and response are stable during the analysis of each sample. The area of internal standard peaks may not vary by more than a factor of two. When compared to the preceding calibration check, retention times may not vary by more than 30 seconds.

The laboratory correctly calculated control limits for internal standard response and retention times. The response produced by the chrysene-d12 additions to T10-1, and the perylene-d12 additions to T10-1 and T11-1 failed to satisfy the calculated limits of acceptance. Analytes dependant upon the response of these internal standards have been qualified as estimations in the affected samples.

MATRIX SPIKES / MATRIX SPIKE DUPLICATES / MATRIX SPIKED BLANKS

Matrix spiking refers to the addition of known analyte concentrations to a sample, prior to analysis. Analyte recoveries provide an indication of laboratory accuracy. The analysis of a duplicate spiked aliquot provides a measurement of precision.

Matrix spikes (MS/MSD) were not prepared. This omission makes it impossible to evaluate matrix effects that might bias measurements from this group of samples. Analyte recoveries were reported for a spiked blank. Five of the eleven additions to a clean matrix produced unacceptably low recoveries. Based on this performance, and the absence of spiked samples, the results reported from T10-1 and T11-1 have been qualified as estimations.

DUPLICATES

Two aliquots of the same sample are processed separately through all aspects of sample preparation and analysis. Results produced by the analysis of this pair of samples are compared as a measurement of precision. Poor precision, may be indicative of sample non-homogeneity, method defects, or poor laboratory technique.

Field split duplicates were not included in this group of samples.

SAMPLE INFORMATION

Formal reports were provided for each sample. The data package also included total ion chromatograms and raw instrument printouts. Sample chromatograms were properly attenuated. Mass spectra references were provided to confirm the identification of each reported analyte.

In several cases, the identifications of Tentatively Identified Compounds (TIC) were not conclusively supported by the library

searches included in the raw data. In such cases, Form 1F has been edited to indicate an appropriate identification. Both Form 1F's have been corrected

SUMMARY OF QUALIFIED DATA

FORMER BROWN MANUFACTURING SITE SAMPLED 11/17/99

		BLANK TIC	CALIBRATE 5CLPHENOL	INT STD	SPIKES	SPECTRA ID TIC
T10-1	(32299002)	REMOVE	REJECT	IS5,6 J/UJ	ALL J/UJ	CORRECT
T11-1	(32299006)	REMOVE	REJECT	IS6 UJ	ALL UJ	CORRECT

IS5 = pyrene, butylbenzylhthalate, 3,3'dichlorobenzidine, benzo[a]anthracene, chrysene, bis(2-ethylhexyl)phthalate,
IS6 = di-n-octylphthalae, benzo[b]fluoranthene, benzo[k]fluoranthene, benzo[a]pyrene, indeno[1,2,3-cd]pyrene, dibenz[a,h]anthracene, benzo[g,h,i]perylene

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

T10-1

Lab Name: Upstate Labatories, Inc. Contract: C&H Engin

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH14

Matrix: (soil/water) SOIL Lab Sample ID: 32299002

Sample wt/vol: 30.2 (g/ml) G Lab File ID: B7604.D

Level: (low/med) LOW Date Received: 11/17/99

% Moisture: 31 decanted:(Y/N) N Date Extracted: 11/19/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/16/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
86-30-6	N-nitrosodimethylamine	480	U
111-44-4	bis(2-Chloroethyl)ether	480	U
108-95-2	Phenol	480	U
95-57-8	2-Chlorophenol	480	U
541-73-1	1,3-Dichlorobenzene	480	U
106-46-7	1,4-Dichlorobenzene	480	U
95-50-1	1,2-Dichlorobenzene	480	U
108-60-1	2,2'-oxybis(1-Chloropropane)	480	U
95-48-7	2-Methylphenol	480	U
67-72-1	Hexachloroethane	480	U
621-64-7	N-Nitroso-di-n-propylamine	480	U
106-44-5	(3+4)-Methylphenol	480	U
98-95-3	Nitrobenzene	480	U
78-59-1	Isophorone	480	U
88-75-5	2-Nitrophenol	480	U
105-67-9	2,4-Dimethylphenol	480	U
111-91-1	bis(2-Chloroethoxy)methane	480	U
120-83-2	2,4-Dichlorophenol	480	U
120-82-1	1,2,4-Trichlorobenzene	480	U
91-20-3	Naphthalene	500	J
106-47-8	4-Chloroaniline	480	U
87-68-3	Hexachlorobutadiene	480	U
59-50-7	4-Chloro-3-methylphenol	480	U
91-57-6	2-Methylnaphthalene	290	J
77-47-4	Hexachlorocyclopentadiene	480	U
88-06-2	2,4,6-Trichlorophenol	480	U
95-95-4	2,4,5-Trichlorophenol	4800	U
91-58-7	2-Chloronaphthalene	480	U
88-74-4	2-Nitroaniline	4800	U
208-96-8	Acenaphthylene	480	U
131-11-3	Dimethyl phthalate	480	U
606-20-2	2,6-Dinitrotoluene	480	U
83-32-9	Acenaphthene	660	J
99-09-2	3-Nitroaniline	4800	U
51-28-5	2,4-Dinitrophenol	4800	U
132-64-9	Dibenzofuran	390	J
121-14-2	2,4-Dinitrotoluene	480	U

UJ

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T10-1

Lab Name: Upstate Labatories, Inc. Contract: C&H Engin

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH14

Matrix: (soil/water) SOIL Lab Sample ID: 32299002

Sample wt/vol: 30.2 (g/ml) G Lab File ID: B7604.D

Level: (low/med) LOW Date Received: 11/17/99

% Moisture: 31 decanted:(Y/N) N Date Extracted: 11/19/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/16/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-02-7	4-Nitrophenol	4800	U UJ
86-73-7	Fluorene	700	J
7005-72-3	4-Chlorophenyl phenyl ether	480	U
84-66-2	Diethyl phthalate	480	U
100-01-6	4-Nitroaniline	4800	U
534-52-1	4,6-Dinitro-2-methylphenol	2400	U UJ
86-30-6	n-Nitrosodiphenylamine	480	U
101-55-3	4-Bromophenyl phenyl ether	480	U
118-74-1	Hexachlorobenzene	480	U
87-86-5	Pentachlorophenol	~~900~~	U R
85-01-8	Phenanthrene 5300	~~7300~~	E DJ
120-12-7	Anthracene	480	U
84-74-2	Di-n-butyl phthalate	480	U
86-74-8	Carbazole	480	U
206-44-0	Fluoranthene	480	U
129-00-0	Pyrene	480	U
85-68-7	Butyl benzyl phthalate	480	U
91-94-1	3,3'-Dichlorobenzidine	480	U UJ
56-55-3	Benzo[a]anthracene	480	U
218-01-9	Chrysene	480	U
117-81-7	bis(2-Ethylhexyl)phthalate	480	U
117-84-0	Di-n-octyl phthalate	480	U
205-99-2	Benzo[b]fluoranthene	480	U
207-08-9	Benzo[k]fluoranthene	480	U
50-32-8	Benzo[a]pyrene	1400	J
193-39-5	Indeno[1,2,3-cd]pyrene	470	J
53-70-3	Dibenz[a,h]anthracene	480	U UJ
191-24-2	Benzo[g,h,i]perylene	410	J

JB

0000076

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

T11-1

Lab Name: Upstate Labatories, Inc. Contract: C&H Engin

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH14

Matrix: (soil/water) SOIL Lab Sample ID: 32299006

Sample wt/vol: 30 (g/ml) G Lab File ID: B7598.D

Level: (low/med) LOW Date Received: 11/17/99

% Moisture: 18 decanted:(Y/N) N Date Extracted: 11/19/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/99

Injection Volume: 2.0 (uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
86-30-6	N-nitrosodimethylamine	4100	U
111-44-4	bis(2-Chloroethyl)ether	4100	U
108-95-2	Phenol	4100	U
95-57-8	2-Chlorophenol	4100	U
541-73-1	1,3-Dichlorobenzene	4100	U
106-46-7	1,4-Dichlorobenzene	4100	U
95-50-1	1,2-Dichlorobenzene	4100	U
108-60-1	2,2'-oxybis(1-Chloropropane)	4100	U
95-48-7	2-Methylphenol	4100	U
67-72-1	Hexachloroethane	4100	U
621-64-7	N-Nitroso-di-n-propylamine	4100	U
106-44-5	(3+4)-Methylphenol	4100	U
98-95-3	Nitrobenzene	4100	U
78-59-1	Isophorone	4100	U
88-75-5	2-Nitrophenol	4100	U
105-67-9	2,4-Dimethylphenol	4100	U
111-91-1	bis(2-Chloroethoxy)methane	4100	U
120-83-2	2,4-Dichlorophenol	4100	U
120-82-1	1,2,4-Trichlorobenzene	4100	U
91-20-3	Naphthalene	4100	U
106-47-8	4-Chloroaniline	4100	U
87-68-3	Hexachlorobutadiene	4100	U
59-50-7	4-Chloro-3-methylphenol	4100	U
91-57-6	2-Methylnaphthalene	4100	U
77-47-4	Hexachlorocyclopentadiene	4100	U
88-06-2	2,4,6-Trichlorophenol	4100	U
95-95-4	2,4,5-Trichlorophenol	41000	U
91-58-7	2-Chloronaphthalene	4100	U
88-74-4	2-Nitroaniline	41000	U
208-96-8	Acenaphthylene	4100	U
131-11-3	Dimethyl phthalate	4100	U
606-20-2	2,6-Dinitrotoluene	4100	U
83-32-9	Acenaphthene	4100	U
99-09-2	3-Nitroaniline	41000	U
51-28-5	2,4-Dinitrophenol	41000	U
132-64-9	Dibenzofuran	4100	U
121-14-2	2,4-Dinitrotoluene	4100	U

5J

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T11-1

Lab Name: Upstate Labatories, Inc. Contract: C&H Engin

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH14

Matrix: (soil/water) SOIL Lab Sample ID: 32299006

Sample wt/vol: 30 (g/ml) G Lab File ID: B7598.D

Level: (low/med) LOW Date Received: 11/17/99

% Moisture: 18 decanted:(Y/N) N Date Extracted: 11/19/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/99

Injection Volume: 2.0 (uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-02-7	4-Nitrophenol	41000	U
86-73-7	Fluorene	4100	U
7005-72-3	4-Chlorophenyl phenyl ether	4100	U
84-66-2	Diethyl phthalate	4100	U
100-01-6	4-Nitroaniline	41000	U
534-52-1	4,6-Dinitro-2-methylphenol	20000	U
86-30-6	n-Nitrosodiphenylamine	4100	U
101-55-3	4-Bromophenyl phenyl ether	4100	U
118-74-1	Hexachlorobenzene	4100	U
87-86-5	Pentachlorophenol	~~8100~~	U R
85-01-8	Phenanthrene	4100	U
120-12-7	Anthracene	4100	U
84-74-2	Di-n-butyl phthalate	4100	U
86-74-8	Carbazole	4100	U UJ
206-44-0	Fluoranthene	4100	U
129-00-0	Pyrene	4100	U
85-68-7	Butyl benzyl phthalate	4100	U
91-94-1	3,3'-Dichlorobenzidine	4100	U
56-55-3	Benzo[a]anthracene	4100	U
218-01-9	Chrysene	4100	U
117-81-7	bis(2-Ethylhexyl)phthalate	4100	U
117-84-0	Di-n-octyl phthalate	4100	U
205-99-2	Benzo[b]fluoranthene	4100	U
207-08-9	Benzo[k]fluoranthene	4100	U
50-32-8	Benzo[a]pyrene	4100	U
193-39-5	Indeno[1,2,3-cd]pyrene	4100	U
53-70-3	Dibenz[a,h]anthracene	4100	U
191-24-2	Benzo[g,h,i]perylene	4100	U

0000117

DATA USABILITY SUMMARY REPORT

for

BEARDSLEY DESIGN ASSOCIATES

431 EAST FAYETTE STREET

EAST SYRACUSE, NY 13202

FORMER BROWN MANUFACTURING SITE
SDG CH14
Sampled 11/17/99

SOILS SAMPLES for PCB

T9-2	(32299001)	T10-1	(32299002)	T10-2	(32299003)
T10-3	(32299004)	T11-1	(32299006)	T11-2	(32299007)
T11-3	(32299008)	T11-4	(32299009)		

DATA ASSESSMENT

A PCB data package containing analytical results for eight soil samples was received from Beardsley Design Associates on 16Nov01. The ASP deliverables package included formal reports, raw data, the necessary QC, and supporting information. The samples, taken from the Former Brown Manufacturing site, were identified by Chain of Custody documents and trackable through the work of Upstate Laboratories, Inc., the laboratory contracted for analysis. Analyses, performed according to SW-846 Method 8080, addressed determinations of PCB. Laboratory data was evaluated according to the Quality Assurance / Quality Control Requirements of the New York State Department of Environmental Conservation's Analytical Services Protocol (ASP), September 1989, Rev. 6/2000. When ASP protocol was not followed, the current EPA Region II Functional Guidelines (SPO NO. HW-6, Rev. #8, Jan. 1992, CLP Organics Data Review and Preliminary Review), was used as a technical reference.

The PCB results obtained from this group of samples have been qualified due to poor calibration performance. The reported sample concentrations were based on a calibration that was performed four days after the samples were actually analyzed. Calibration verifications based on the correct calibration files demonstrated poor instrument stability. Based on this performance, the data reported from this group of samples has been qualified as an estimation.

CORRECTNESS AND USABILITY

The PCB concentrations and CRDL's reported from this group of samples were calculated incorrectly. The reported values were calculated as mg/kg but reported as µg/kg. Form 1's have been corrected.

Spiked samples and spiked blanks (LCS) were not analyzed with this group of samples. This omission makes it impossible to evaluate the presence of interferences that might be associated with the matrix of samples from the former Brown Manufacturing site.

Reported data should be considered usable in its present form. Reported concentrations that are felt to provide a reasonable estimation of the conditions being measured have been flagged "J" or "UJ". Estimated data should be used with caution. A detailed discussion of the review process follows.

Two facts should be considered by all data users. No compound concentration, even if it has passed all QC testing, can be guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error. Secondly. DATAVAL, Inc. guarantees the quality of this data assessment.

However, DATAVAL, Inc. does not warrant any interpretation or utilization of this data by a third party.

Reviewer's signature: James B. Baldwin Date: 1/24/02

SAMPLE HISTORY

Analyte concentrations can deteriorate with time due to chemical instability, bacterial degradation or volatility. Samples that are not properly preserved, or are not analyzed within established holding times, may no longer be considered representative. Holding times are calculated from the time of sample collection. Samples must remain chilled to 4°C from the time of collection. Aqueous samples must be extracted within 7 days. The extraction of soil samples must begin within 14 days of collection. Analyses must be completed within 40 days of extraction. Each sample delivery group, containing up to 20 samples, should include a field duplicate, a matrix spike, matrix spike duplicate, and a rinsate blank.

This sample delivery group, which included eight soil samples, was collected from the Former Brown Manufacturing site on 17Nov99. The entire group of samples was delivered to the laboratory, after hours, on the day of collection. The sample cooler arrived intact, properly chilled, with a custody seal in place. A cooler temperature of 6.9°C was recorded by the laboratory at the time of receipt.

Sample extractions were performed on 22Nov99. The analysis of each sample was completed on 17Dec99. Program holding time limitations were satisfied.

BLANKS

Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Method blanks are analyzed to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

One method blank was analyzed with this group of samples. The blank was free of PCB contamination.

CALIBRATION

Requirements for instrument calibration are established to ensure that laboratory equipment is capable of producing accurate, quantitative data. Initial calibrations demonstrate a range through which measurements may be made. Continuing calibration standards verify instrument stability.

The calculations included in this data package were based on calibration files that were generated four days after this group of samples was analyzed. It must be assumed that preventative maintenance was performed prior to this calibration, and that instrument performance had changed. The laboratory provided a second data submission which included the correct initial calibration. These files were generated nine months prior to the analysis of samples. The calibration sequences could not be directly compared because, in some cases, different chromatographic peaks were used for quantitation.

In an effort to avoid data rejections, the results reported from each sample, and from the associated calibration verifications, were recalculated by this reviewer. The analysis of this group of samples was bracketed by check standards of AR-1260, AR-1232 and AR-1254. These 500 µg/l standards produced recoveries of 75%, 149% and 122%, respectively. Although this performance does not satisfy the acceptance criteria found in SW-846 Method 8000, this work appears to provide a useful estimation of the levels of PCB present in each sample. This information should be used with caution.

An additional error was identified in the calculation of reported PCB results. The reported PCB concentrations and CRDL's were low by a factor of 1000. The laboratory's results were calculated as mg/kg, but reported as µg/l. Form 1's have been corrected.

SURROGATES
Each sample, blank and standard is spiked with surrogate compounds prior to analysis. The structures of surrogates are similar to analytes of interest, but they are not normally found in environmental samples. Surrogate recoveries are monitored to evaluate overall laboratory performance and the efficiency of laboratory technique.

Two surrogates, TCX and DCB were added to each sample. The surrogate additions to each sample were recovered successfully, on both chromatographic columns. The program acceptance criteria was satisfied.

MATRIX SPIKES / MATRIX SPIKE DUPLICATES / MATRIX SPIKED BLANKS
Matrix spiking refers to the addition of known analyte concentrations to a sample, prior to analysis. Analyte recoveries provide an indication of laboratory accuracy. The analysis of a duplicate spiked aliquot provides a measurement of precision.

Spiked samples and spiked blanks were not extracted and analyzed with this group of samples. Due to this omission, it is impossible to evaluate the presence of matrix interferences that might bias measurements obtained from this group of samples. The PCB results reported from this group of samples have been qualified as estimations.

DUPLICATES
Two aliquots of the same sample are processed separately through all aspects of sample preparation and analysis. Results produced by the analysis of this pair of samples are compared as a measurement of precision. Poor precision, may be indicative of sample non-homogeneity, method defects, or poor laboratory technique.

Field split duplicates were not included in this group of samples.

SUMMARY OF QUALIFIED DATA

FORMER BROWN MANUFACTURING SITE

SAMPLED 11/17/99

		CALIBRATE	MS/MSD/LCS	CALCULATE CRDL
T9-2	(32299001)	ALL UJ	ALL UJ	100 µg/kg
T10-1	(32299002)	ALL UJ	ALL UJ	120 µg/kg
T10-2	(32299003)	ALL UJ	ALL UJ	100 µg/kg
T10-3	(32299004)	ALL UJ	ALL UJ	90 µg/kg
T11-1	(32299006)	ALL UJ	ALL UJ	90 µg/kg
T11-2	(32299007)	ALL UJ	ALL UJ	100 µg/kg
T11-3	(32299008)	ALL UJ	ALL UJ	100 µg/kg
T11-4	(32299009)	ALL UJ	ALL UJ	100 µg/kg

1A

PCB ANALYSIS DATA SHEET

NYSDEC SAMPLE NO. T9-2

Lab Name: Upstate Labs Inc. Contract:

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH14

Matrix: Soil Lab Sample ID: 32299001

Sample wt.: 30 (g) Lab File ID: PA5386

% Moisture: 16 Decanted: NO Date Received: 11/17/99

Extraction: shaker Date Extracted: 11/22/99

Conc Extract Vol.: ~~1000~~ 10000 (uL) JTS Date Analyzed: 12/17/99

Injection Vol.: 2 (uL) Time Analyzed: 03:28AM

GPC Cleanup: No pH: Dilution Factor: 50

Instr. ID: ULI 9.0 Sulfur Cleanup: Yes

CAS NO.	COMPOUND	CONCENTRATION UNITS ug/Kg	Q
12674-11-2	Aroclor 1016	<100 ~~<10~~	U
11104-28-2	Aroclor 1221	<100 ~~<10~~	
11141-16-5	Aroclor 1232	<100 ~~<10~~	
53469-21-9	Aroclor 1242	<100 ~~<10~~	
12672-29-6	Aroclor 1248	<100 ~~<10~~	
11097-69-1	Aroclor 1254	<100 ~~<10~~	
11096-82-5	Aroclor 1260	<100 ~~<10~~	

JTS

1A
PCB ANALYSIS DATA SHEET

NYSDEC SAMPLE NO. T10-1

Lab Name: Upstate Labs Inc. Contract:

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH14

Matrix: Soil Lab Sample ID: 32299002

Sample wt.: 30 (g) Lab File ID: PA5386

% Moisture: 31 Decanted: NO Date Received: 11/17/99

Extraction: shaker Date Extracted: 11/22/99

Conc Extract Vol.: 10000 ~~1000~~ (uL) JVS Date Analyzed: 12/17/99

Injection Vol.: 2 (uL) Time Analyzed: 04:13AM

GPC Cleanup: No pH: Dilution Factor: 50

Instr. ID: ULI 9.0 Sulfur Cleanup: Yes

CAS NO.	COMPOUND	CONCENTRATION UNITS ug/Kg		Q
12674-11-2	Aroclor 1016	<120 ~~<12~~	UJ	U
11104-28-2	Aroclor 1221	<120 ~~<12~~		U
11141-16-5	Aroclor 1232	<120 ~~<12~~		U
53469-21-9	Aroclor 1242	<120 ~~<12~~		U
12672-29-6	Aroclor 1248	<120 ~~<12~~		U
11097-69-1	Aroclor 1254	<120 ~~<12~~		U
11096-82-5	Aroclor 1260	<120 ~~<12~~		U

JVS

1A

PCB ANALYSIS DATA SHEET

NYSDEC SAMPLE NO. T10-2

Lab Name: Upstate Labs Inc. Contract:

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH14

Matrix: Soil Lab Sample ID: 32299003

Sample wt.: 30 (g) Lab File ID: PA5386

% Moisture: 23 Decanted: NO Date Received: 11/17/99

Extraction: shaker Date Extracted: 11/22/99

Conc Extract Vol.: 10000 ~~1000~~ (uL) JBS Date Analyzed: 12/17/99

Injection Vol.: 2 (uL) Time Analyzed: 04:57AM

GPC Cleanup: No pH: Dilution Factor: 50

Instr. ID: ULI 9.0 Sulfur Cleanup: Yes

CAS NO.	COMPOUND	CONCENTRATION UNITS ug/Kg	Q
12674-11-2	Aroclor 1016	<100 ~~<10~~	UJ
11104-28-2	Aroclor 1221	<100 ~~<10~~	UJ
11141-16-5	Aroclor 1232	<100 ~~<10~~	UJ
53469-21-9	Aroclor 1242	<100 ~~<10~~	UJ
12672-29-6	Aroclor 1248	<100 ~~<10~~	UJ
11097-69-1	Aroclor 1254	<100 ~~<10~~	UJ
11096-82-5	Aroclor 1260	<100 ~~<10~~	UJ

JBS

1A

PCB ANALYSIS DATA SHEET

NYSDEC SAMPLE NO. T10-3

Lab Name: Upstate Labs Inc. Contract:

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH14

Matrix: Soil Lab Sample ID: 32299004

Sample wt.: 30 (g) Lab File ID: PA5386

% Moisture: 15 Decanted: NO Date Received: 11/17/99

Extraction: shaker Date Extracted: 11/22/99

Conc Extract Vol.: ~~1000~~ 1000 (uL) JJB Date Analyzed: 12/17/99

Injection Vol.: 2 (uL) Time Analyzed: 05:42AM

GPC Cleanup: No pH: Dilution Factor: 50

Instr. ID: ULI 9.0 Sulfur Cleanup: Yes

CAS NO.	COMPOUND	CONCENTRATION UNITS ug/Kg	Q
12674-11-2	Aroclor 1016	<90 ~~<.00~~	U
11104-28-2	Aroclor 1221	<90 ~~<.09~~	U
11141-16-5	Aroclor 1232	<90 ~~<.00~~	U
53469-21-9	Aroclor 1242	<90 ~~<.00~~	U
12672-29-6	Aroclor 1248	<90 ~~<.00~~	U
11097-69-1	Aroclor 1254	<90 ~~<.09~~	U
11096-82-5	Aroclor 1260	<90 ~~<.09~~	U

UJ

JJB

1A
PCB ANALYSIS DATA SHEET

NYSDEC SAMPLE NO. T11-1

Lab Name: Upstate Labs Inc. Contract:

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH14

Matrix: Soil Lab Sample ID: 32299006

Sample wt.: 30 (g) Lab File ID: PA5386

% Moisture: 18 Decanted: NO Date Received: 11/17/99

Extraction: shaker Date Extracted: 11/22/99

Conc Extract Vol.: ~~1000~~ 10000 (uL) Date Analyzed: 12/17/99

Injection Vol.: 2 (uL) Time Analyzed: 06:26AM

GPC Cleanup: No pH: Dilution Factor: 50

Instr. ID: ULI 9.0 Sulfur Cleanup: Yes

CAS NO.	COMPOUND	CONCENTRATION UNITS ug/Kg		Q
12674-11-2	Aroclor 1016	<90 ~~<.09~~	UJ	U
11104-28-2	Aroclor 1221	<90 ~~<.09~~		U
11141-16-5	Aroclor 1232	<90 ~~<.09~~		U
53469-21-9	Aroclor 1242	<90 ~~<.09~~		U
12672-29-6	Aroclor 1248	<90 ~~<.09~~		U
11097-69-1	Aroclor 1254	<90 ~~<.09~~		U
11096-82-5	Aroclor 1260	<90 ~~<.09~~		U

JBJ

1A
PCB ANALYSIS DATA SHEET

NYSDEC SAMPLE NO. T11-2

Lab Name: Upstate Labs Inc. Contract:

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH14

Matrix: Soil Lab Sample ID: 32299007

Sample wt.: 30 (g) Lab File ID: PA5386

% Moisture: 18 Decanted: NO Date Received: 11/17/99

Extraction: shaker Date Extracted: 11/22/99

Conc Extract Vol.: ~~1000~~ 10000 (uL) Date Analyzed: 12/17/99

Injection Vol.: 2 (uL) Time Analyzed: 07:11AM

GPC Cleanup: No pH: Dilution Factor: 50

Instr. ID: ULI 9.0 Sulfur Cleanup: Yes

CAS NO.	COMPOUND	CONCENTRATION UNITS ug/Kg	Q
12674-11-2	Aroclor 1016	<100 ~~<10~~	U
11104-28-2	Aroclor 1221	<100 ~~<10~~	U
11141-16-5	Aroclor 1232	<100 ~~<10~~	U
53469-21-9	Aroclor 1242	<100 ~~<10~~	U
12672-29-6	Aroclor 1248	<100 ~~<10~~	U
11097-69-1	Aroclor 1254	<100 ~~<10~~	U
11096-82-5	Aroclor 1260	<100 ~~<10~~	U

0000446

1A
PCB ANALYSIS DATA SHEET

NYSDEC SAMPLE NO. T11-3

Lab Name: Upstate Labs Inc. Contract:

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH14

Matrix: Soil Lab Sample ID: 32299008

Sample wt.: 30 (g) Lab File ID: PA5386

% Moisture: 21 Decanted: NO Date Received: 11/17/99

Extraction: shaker Date Extracted: 11/22/99

Conc Extract Vol.: ~~1000~~ 10000 (uL) JJS Date Analyzed: 12/17/99

Injection Vol.: 2 (uL) Time Analyzed: 07:55AM

GPC Cleanup: No pH: Dilution Factor: 50

Instr. ID: ULI 9.0 Sulfur Cleanup: Yes

CAS NO.	COMPOUND	CONCENTRATION UNITS ug/Kg	Q
12674-11-2	Aroclor 1016	<100 ~~<10~~	U
11104-28-2	Aroclor 1221	<100 ~~<10~~	U
11141-16-5	Aroclor 1232	<100 ~~<10~~	U
53469-21-9	Aroclor 1242	<100 ~~<10~~	U
12672-29-6	Aroclor 1248	<100 ~~<10~~	U
11097-69-1	Aroclor 1254	<100 ~~<10~~	U
11096-82-5	Aroclor 1260	<100 ~~<10~~	U

JJS

1A
PCB ANALYSIS DATA SHEET

NYSDEC SAMPLE NO. T11-4

Lab Name: Upstate Labs Inc. Contract:

Lab Code: 10170 Case No.: SAS No.: SDG No.: CH14

Matrix: Soil Lab Sample ID: 32299009

Sample wt.: 30 (g) Lab File ID: PA5386

% Moisture: 20 Decanted: NO Date Received: 11/17/99

Extraction: shaker Date Extracted: 11/22/99

Conc Extract Vol.: ~~1000~~ 10000 (uL) JB3 Date Analyzed: 12/17/99

Injection Vol.: 2 (uL) Time Analyzed: 08:40AM

GPC Cleanup: No pH: Dilution Factor: 50

Instr. ID: ULI 9.0 Sulfur Cleanup: Yes

CAS NO.	COMPOUND	CONCENTRATION UNITS ug/Kg	Q
12674-11-2	Aroclor 1016	<100 ~~<10~~	U
11104-28-2	Aroclor 1221	<100 ~~<10~~	U
11141-16-5	Aroclor 1232	<100 ~~<10~~	U
53469-21-9	Aroclor 1242	<100 ~~<10~~	U
12672-29-6	Aroclor 1248	<100 ~~<10~~	U
11097-69-1	Aroclor 1254	<100 ~~<10~~	U
11096-82-5	Aroclor 1260	<100 ~~<10~~	U

JB

DATA USABILITY SUMMARY REPORT

for

BEARDSLEY DESIGN ASSOCIATES

431 EAST FAYETTE STREET

EAST SYRACUSE, NY 13202

FORMER BROWN MANUFACTURING SITE
SDG CH14
Sampled 11/17/99

SOIL SAMPLES for TPH

T9-2	(32299001)	T10-1	(32299002)	T10-2	(32299003)
T10-3	(32299004)	T11-E	(32299005)	T11-1	(32299006)
T11-2	(32299007)	T11-3	(32299008)	T11-4	(32299009)

DATA ASSESSMENT

A TPH data package containing analytical results for eight soil samples and one oil was received from Beardsley Design Associates on 16Nov01. The ASP deliverables package included formal reports, raw data, the necessary QC, and supporting information. The samples, taken from the Former Brown Manufacturing site, were identified by Chain of Custody documents and trackable through the work of Upstate Laboratories, Inc., the laboratory contracted for analysis. Analyses, performed according to NYS DOH Method 310.13, addressed determinations of gasoline, Fuel Oil #1, Fuel Oil #2, lube oil and unidentified hydrocarbons. Laboratory data was evaluated according to the Quality Assurance / Quality Control Requirements of the New York State Department of Environmental Conservation's Analytical Services Protocol (ASP), September 1989, Rev. 6/2000, and the cited method.

The TPH results obtained from T11-E, T11-1 and T11-3 have been qualified as estimations due to low surrogate standard recoveries.

CORRECTNESS AND USABILITY

A petroleum fingerprint was present in the chromatography of T11-E and identified as an unknown hydrocarbon. A similar elution pattern was identified as lube oil in other program samples. The Form 1 of T11-E has been edited to indicate the presence of lube oil.

In addition to lube oil, which was reported, the chromatography of T11-2, T11-3 and T11-4 indicated the presence of Fuel Oil #2. The fuel oil was identified as an unknown in T11-2 and T11-4. The Form 1 of T11-2, T11-3 and T11-4 has been edited.

Reported data should be considered technically defensible in its present form. Reported concentrations that are felt to provide a usable estimation of the conditions being measured have been flagged "J" or "UJ". Estimated data should be used with caution. A detailed discussion of the review process follows.

Two facts should be considered by all data users. No compound concentration, even if it has passed all QC testing, can be guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error. Secondly. DATAVAL, Inc. guarantees the quality of this data assessment. However, DATAVAL, Inc. does not warrant any interpretation or utilization of this data by a third party.

Reviewer's signature: James B. Baldwin Date: 1/21/02

SAMPLE HISTORY

Analyte concentrations can deteriorate with time due to chemical instability, bacterial degradation or volatility. Samples that are not properly preserved, or are not analyzed within established holding times, may no longer be considered representative. Holding times are calculated from the time of sample collection. Samples must remain chilled to 4°C from the time of collection. Aqueous samples must be extracted within 7 days. The extraction of soil samples must begin within 14 days of collection. Analyses must be completed within 40 days of extraction. Each sample delivery group, containing up to 20 samples, should include a field duplicate, a matrix spike, matrix spike duplicate, and a rinsate blank.

This sample delivery group, which included eight soil samples and one oil, was collected from the Former Brown Manufacturing site on 17Nov99. The entire group of samples was delivered to the laboratory, after hours, on the day of collection. The sample cooler arrived intact, properly chilled, with a custody seal in place. A cooler temperature of 6.9°C was recorded by the laboratory at the time of receipt.

Sample extractions were performed on 19Nov99 and 22Nov99. The analysis of each sample was completed by 14Dec99. Program holding time limitations were satisfied.

BLANKS

Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Method blanks are analyzed to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

Two method blanks were analyzed with this group of samples. The chromatography of both blanks was free of fingerprint patterns indicative of the targeted petroleum products.

CALIBRATION

Requirements for instrument calibration are established to ensure that laboratory equipment is capable of producing accurate, quantitative data. Initial calibrations demonstrate a range through which measurements may be made. Continuing calibration standards verify instrument stability.

The initial instrument calibration was performed on 28Jan99. Fuel oil concentrations of 10, 50, 100, 500 and 5000 mg/l were included. Although calibration performance was not summarized, an acceptable degree of instrument linearity was demonstrated. Correlation coefficients of 8%, 18% and 14% RSD were calculated for the three fuel oil peaks used for quantitation. Lube oil, kerosene and gasoline standards of 1000 mg/l were also analyzed to demonstrate their chromatographic fingerprint patterns.

Calibration verification standards were analyzed to bracket every

twelve hour period of instrument operation. These fuel oil standards demonstrated an acceptable level of instrument stability.

It is noted that the reported instrument calibrations allowed detection limits to be established. Beyond that, the targeted petroleum products were identified by their chromatographic fingerprints. When present in samples, targeted petroleum products were identified and reported as present. Quantitation was not attempted.

SURROGATES

Each sample, blank and standard is spiked with surrogate compounds prior to analysis. The structures of surrogates are similar to analytes of interest, but they are not normally found in environmental samples. Surrogate recoveries are monitored to evaluate overall laboratory performance and the efficiency of laboratory technique.

Each sample was spiked with 0.20 mg of dodecane. In most cases, this surrogate was recovered successfully. Low surrogate recoveries were reported from T11-E (65%), T11-1 (63%) and T11-3 (62%). Based on this performance, the TPH results reported from T11-E, T11-1 and T11-3 have been qualified as estimations.

MATRIX SPIKES / MATRIX SPIKE DUPLICATES / MATRIX SPIKED BLANKS

Matrix spiking refers to the addition of known analyte concentrations to a sample, prior to analysis. Analyte recoveries provide an indication of laboratory accuracy. The analysis of a duplicate spiked aliquot provides a measurement of precision.

1000 mg/kg of fuel oil was added to two portions of T8-2, a site sample from a related delivery group (SDG CH13). The recovery of these additions demonstrated an acceptable level of measurement accuracy. Although not reported by the laboratory, this pair of measurements demonstrated poor precision (44% RPD). This performance alone does not necessitate data qualifications. Acceptable fuel oil recoveries were also obtained from two spiked blanks.

DUPLICATES

Two aliquots of the same sample are processed separately through all aspects of sample preparation and analysis. Results produced by the analysis of this pair of samples are compared as a measurement of precision. Poor precision, may be indicative of sample non-homogeneity, method defects, or poor laboratory technique.

Field split duplicates were not included in this group of samples.

SUMMARY OF QUALIFIED DATA

FORMER BROWN MANUFACTURING SITE

SAMPLED 11/17/99

		SURROGATES	LUBE OIL	FUEL OIL#2
T9-2	(32299001)			
T10-1	(32299002)			
T10-2	(32299003)			
T10-3	(32299004)			
T11-E	(32299005)	ALL J/UJ	PRESENT	
T11-1	(32299006)	ALL J/UJ		
T11-2	(32299007)			PRESENT
T11-3	(32299008)	ALL J/UJ		PRESENT
T11-4	(32299009)			PRESENT

1A

TPH ANALYSIS DATA SHEET

T9-2

Lab Name: Upstate Labs Inc. Contract:

Lab Code: 10170 Case No.: SDG No.: CH14

Matrix: SOIL Lab Sample ID: 32299001

Sample wt.: 30g () Lab File ID: PA5385

% Moisture: 16 Decanted: Date Received: 11/17/99

Extraction: shaker Date Extracted: 11/22/99

Conc Extract Vol.: 10 (ML) Date Analyzed: 12/13/99

Injection Vol.: 2 (uL) Time Analyzed: 01:36PM

GPC Cleanup: No pH: Dilution Factor:

Instr. ID: 53 Sulfur Cleanup:

COMPOUND	CONCENTRATION UNITS mg/Kg	QUALIFIER
GASOLINE	ND	U
FUEL OIL #1 (KEROSENE)	<3.9	U
FUEL OIL #2 (DIESEL)	<3.9	U
LUBE OIL	D	J
UNIDENTIFIABLE HOCS.	ND	U
TOTAL HYDROCARBONS	D	J

1A
TPH ANALYSIS DATA SHEET

T10-1

Lab Name: Upstate Labs Inc. Contract:

Lab Code: 10170 Case No.: SDG No.: CH14

Matrix: SOIL Lab Sample ID: 32299002

Sample wt.: 30g () Lab File ID: PA5385

% Moisture: 31 Decanted: Date Received: 11/17/99

Extraction: shaker Date Extracted: 11/22/99

Conc Extract Vol.: 10 (ML) Date Analyzed: 12/13/99

Injection Vol.: 2 (uL) Time Analyzed: 02:52PM

GPC Cleanup: No pH: Dilution Factor:

Instr. ID: 53 Sulfur Cleanup:

COMPOUND	CONCENTRATION UNITS mg/Kg	QUALIFIER
GASOLINE	ND	U
FUEL OIL #1 (KEROSENE)	<4.8	U
FUEL OIL #2 (DIESEL)	<4.8	U
LUBE OIL	D	J
UNIDENTIFIABLE HOCS.	ND	U
TOTAL HYDROCARBONS	D	J

0000240

1A
TPH ANALYSIS DATA SHEET

T10-3

Lab Name: Upstate Labs Inc. Contract:

Lab Code: 10170 Case No.: SDG No.: CH14

Matrix: SOIL Lab Sample ID: 32299004

Sample wt.: 30g () Lab File ID: PA5385

% Moisture: 15 Decanted: Date Received: 11/17/99

Extraction: shaker Date Extracted: 11/22/99

Conc Extract Vol.: 10 (ML) Date Analyzed: 12/13/99

Injection Vol.: 2 (uL) Time Analyzed: 05:13PM

GPC Cleanup: No pH: Dilution Factor:

Instr. ID: 53 Sulfur Cleanup:

COMPOUND	CONCENTRATION UNITS mg/Kg	QUALIFIER
GASOLINE	ND	U
FUEL OIL #1 (KEROSENE)	<3.8	U
FUEL OIL #2 (DIESEL)	<3.8	U
LUBE OIL	D	J
UNIDENTIFIABLE HOCS.	ND	U
TOTAL HYDROCARBONS	D	J

1A
TPH ANALYSIS DATA SHEET

T11-E

Lab Name: Upstate Labs Inc. Contract:

Lab Code: 10170 Case No.: SDG No.: CH-14

Matrix OIL Lab Sample ID: 322-5

Sample wt.: .05 G () Lab File ID: PA5383

% Moisture: N/A Decanted: NO Date Received: 11/16/99

Extraction: Date Extracted: 11/19/99

Conc Extract Vol.: 5 (ML) Date Analyzed: 11/29/99

Injection Vol.: 2 (uL) Time Analyzed: 17:14

GPC Cleanup: No pH: Dilution Factor: N/A

Instr. ID: 53 Sulfur Cleanup: N/A

CAS NO.	COMPOUND	CONCENTRATION UNITS mg/kg	Q
	GASOLINE	N.D.	U
	FUEL OIL #1 (KEROSENE)	<1000	U UJ
	FUEL OIL #2 (DIESEL)	<1000	U UJ
	LUBE OIL	~~N.D~~ D	U DJ
	UNIDENTIFIABLE HOCS.	~~D~~ N,D	UJ
	TOTAL HYDROCARBONS	D.	J

745

0000255

1A
TPH ANALYSIS DATA SHEET

T11-1

Lab Name: Upstate Labs Inc. Contract:

Lab Code: 10170 Case No.: SDG No.: CH14

Matrix: SOIL Lab Sample ID: 32299006

Sample wt.: 30g () Lab File ID: PA5385

% Moisture: 18 Decanted: Date Received: 11/17/99

Extraction: shaker Date Extracted: 11/22/99

Conc Extract Vol.: 10 (ML) Date Analyzed: 12/13/99

Injection Vol.: 2 (uL) Time Analyzed: 06:23PM

GPC Cleanup: No pH: Dilution Factor:

Instr. ID: 53 Sulfur Cleanup:

COMPOUND	CONCENTRATION UNITS mg/Kg	QUALIFIER
GASOLINE	ND	U
FUEL OIL #1 (KEROSENE)	<4.0	U
FUEL OIL #2 (DIESEL)	<4.0	U
LUBE OIL	D	J
UNIDENTIFIABLE HOCS.	ND	U
TOTAL HYDROCARBONS	D	J

UJ

UJ

783

0000260

1A
TPH ANALYSIS DATA SHEET

T11-2

Lab Name: Upstate Labs Inc. Contract:

Lab Code: 10170 Case No.: SDG No.: CH14

Matrix: SOIL Lab Sample ID: 32299007

Sample wt.: 30g () Lab File ID: PA5385

% Moisture: 18 Decanted: Date Received: 11/17/99

Extraction: shaker Date Extracted: 11/22/99

Conc Extract Vol.: 10 (ML) Date Analyzed: 12/14/99

Injection Vol.: 2 (uL) Time Analyzed: 10:51AM

GPC Cleanup: No pH: Dilution Factor:

Instr. ID: 53 Sulfur Cleanup:

COMPOUND	CONCENTRATION UNITS mg/Kg	QUALIFIER
GASOLINE	ND	U
FUEL OIL #1 (KEROSENE)	<4.0	U
FUEL OIL #2 (DIESEL)	~~<4.0~~ D	~~U~~ J
LUBE OIL	D	J
UNIDENTIFIABLE HOCS.	~~D~~ ND	~~J~~ U
TOTAL HYDROCARBONS	D	J

FORM 1 TPH

1A
TPH ANALYSIS DATA SHEET

T11-3

Lab Name: Upstate Labs Inc. Contract:

Lab Code: 10170 Case No.: SDG No.: CH14

Matrix: SOIL Lab Sample ID: 32299008

Sample wt.: 30g () Lab File ID: PA5385

% Moisture: 21 Decanted: Date Received: 11/17/99

Extraction: shaker Date Extracted: 11/22/99

Conc Extract Vol.: 10 (ML) Date Analyzed: 12/14/99

Injection Vol.: 2 (uL) Time Analyzed: 11:52AM

GPC Cleanup: No pH: Dilution Factor:

Instr. ID: 53 Sulfur Cleanup:

COMPOUND	CONCENTRATION UNITS mg/Kg	QUALIFIER
GASOLINE	ND	U
FUEL OIL #1 (KEROSENE)	<4.2	U } UJ
FUEL OIL #2 (DIESEL)	~~<4.2~~ D	~~U~~ DJ
LUBE OIL	D	J
UNIDENTIFIABLE HOCS.	ND	U UJ
TOTAL HYDROCARBONS	D	J

0000270

1A
TPH ANALYSIS DATA SHEET

T11-4

Lab Name: Upstate Labs Inc. Contract:

Lab Code: 10170 Case No.: SDG No.: CH14

Matrix: SOIL Lab Sample ID: 32299009

Sample wt.: 30g () Lab File ID: PA5385

% Moisture: 20 Decanted: Date Received: 11/17/99

Extraction: shaker Date Extracted: 11/22/99

Conc Extract Vol.: 10 (ML) Date Analyzed: 12/14/99

Injection Vol.: 2 (uL) Time Analyzed: 01:51PM

GPC Cleanup: No pH: Dilution Factor:

Instr. ID: 53 Sulfur Cleanup:

COMPOUND	CONCENTRATION UNITS mg/Kg	QUALIFIER
GASOLINE	ND	U
FUEL OIL #1 (KEROSENE)	<4.1	U
FUEL OIL #2 (DIESEL)	~~4.1~~ D	~~J~~ J
LUBE OIL	D	J
UNIDENTIFIABLE HOCS.	~~D~~ ND	~~J~~ UJ
TOTAL HYDROCARBONS	D	J

0000275

APPENDIX D

PHASE IIB ANALYTICAL DATA

DATA USABILITY SUMMARY REPORT

for

BEARDSLEY DESIGN ASSOCIATES

431 EAST FAYETTE STREET

EAST SYRACUSE, NY 13202

FORMER BROWN MANUFACTURING SITE
SDG BEA01
Sampled 05/15/01, 05/16/01, 05/17/01

SOILS SAMPLES for VOLATILE ORGANICS

T16-1	(13801065)	T16-2	(13801066)	T17-1	(13801067)
T18-1	(13801069)	T19-1	(13801071)	T20-1	(13801073)

DATA ASSESSMENT

A volatile organics data package containing analytical results for six soil samples was received from Beardsley Design Associates on 16Nov01. The ASP deliverables package included formal reports, raw data, the necessary QC, and supporting information. The samples, taken from the Former Brown Manufacturing site, were identified by Chain of Custody documents and trackable through the work of Upstate Laboratories, Inc., the laboratory contracted for analysis. Analyses, performed according to SW-846 Method 8260, addressed Target Compound List analytes. Laboratory data was evaluated according to the Quality Assurance / Quality Control Requirements of the New York State Department of Environmental Conservation's Analytical Services Protocol (ASP), September 1989, Rev. 6/2000. When ASP protocol was not followed, the current EPA Region II Functional Guidelines (SPO NO. HW-6, Rev. #8, Jan. 1992, CLP Organics Data Review and Preliminary Review), was used as a technical reference.

When present in samples methylene chloride is assumed to represent a laboratory or program artifact. Methylene chloride should be considered undetected in each program sample. A detection limit equaling CRDL or the reported concentration, whichever is greater, should be assumed.

The acetone and chloroform concentrations detected in this group of samples have been qualified as estimations. Acetone and chloroform are also assumed to represent a program or laboratory artifact. The reported concentrations can not be completely ignored, however, because acetone and chloroform were not detected in associated blanks. The presence of these analytes should only be considered significant if consistent with site history.

The vinyl chloride result reported from each sample has been rejected due to poor calibration performance.

CORRECTNESS AND USABILITY

The identifications of ethylbenzene and xylene in T16-1, T17-1 and T19-1, and xylene in T18-1 and T20-1 could not be confirmed based on the reference mass spectra included in the raw data. Ethylbenzene and xylene should be considered undetected in the affected samples.

Library searches were performed to identify each reported Tentatively Identified Compound (TIC). When the supporting mass spectra failed to provide a conclusive identification, or when a more definitive identification was possible, Form 1E was edited. Every sample except T16-2 was affected.

Reported data should be considered technically usable in its present form. Reported concentrations that are felt to provide a

usable estimation of the conditions being measured have been flagged "J" or "UJ". Data that is felt to be unusable has been identified with a single red line and flagged "R". Rejected data should not be included in data tables. Estimated data should be used with caution. A detailed discussion of the review process follows.

Two facts should be considered by all data users. No compound concentration, even if it has passed all QC testing, can be guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error. Secondly, DATAVAL, Inc. guarantees the quality of this data assessment. However, DATAVAL, Inc. does not warrant any interpretation or utilization of this data by a third party.

Reviewer's signature: James B. Baldwin Date: 1/21/02

SAMPLE HISTORY

Analyte concentrations can deteriorate with time due to chemical instability, bacterial degradation or volatility. Samples that are not properly preserved or are not analyzed within established holding times may no longer be considered representative. Holding times are calculated from the time of sample collection. Samples must remain chilled to 4°C from the time of collection. VOA analyses must be completed within 14 days of receipt. Each sample delivery group, containing up to 20 samples, should include a field duplicate, a matrix spike, matrix spike duplicate, and a rinsate blank.

This sample delivery group, which included six soil samples, was collected from the Former Brown Manufacturing site between 15May01 and 17May01. Three samples collected on 15MAy01, two collected on 16May01, and one collected on 17May01 were delivered to the laboratory, after hours, on the day of collection. Each cooler of samples arrived intact. The sample receipt log indicates that the sample coolers contained ice. It is noted that only one cooler temperature, 5.9°C, was documented in the receipt log.

The analysis of this group of samples was completed on 24May01. Program holding time limitations were satisfied.

BLANKS

Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Method blanks are analyzed to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank. Any sample concentration less than 5 times the level determined in a blank must be qualified. The qualification criteria is extended to ten times the concentration observed in blanks for common laboratory artifacts. These include acetone, methylene chloride and 2-butanone. Chloroform is also frequently present as a laboratory artifact.

Two method blanks were analyzed with this group of samples. One blank contained 6µg/l of methylene chloride and a Tentatively Identified Compound (TIC) identified as Freon 113. When present in samples, methylene chloride is assumed to represent a laboratory artifact. Methylene chloride should be interpreted as undetected in each program sample. A detection limit equaling CRDL or the reported concentration, whichever is greater, should be assumed. Freon 113 was not detected in this group of samples.

Acetone and chloroform were detected throughout this group of samples. Because these analytes frequently represent laboratory artifacts, the reported concentrations have been qualified as estimations. They have not been removed from Form 1 because they were not detected in the associated blanks. The presence of acetone and chloroform should only be considered significant if consistent with site history.

MS TUNING
Mass spectrometer tuning and performance criteria are established to ensure sufficient mass resolution and sensitivity to accurately detect and identify targeted analytes. Verification is accomplished using a certified standard.

An Instrument Performance Check Standard of BFB was analyzed prior to each analytical sequence and during every 12 hour period of instrument operation. An Instrument Performance Check Form is present for each BFB evaluation. The BFB tunes associated with this group of samples satisfied the program acceptance criteria.

CALIBRATION
Requirements for instrument calibration are established to ensure that laboratory equipment is capable of producing accurate, quantitative data. Initial calibrations demonstrate a range through which measurements may be made. Continuing calibration standards verify instrument stability.

The required levels of initial calibration were performed on 22May01 and 23May01. The 22May01 calibration incorporated a heated purge. Each sequence of calibration standards included analyte concentrations of 10, 20, 50, 100 and 200 µg/l. With one exception, each calibration demonstrated the required levels of instrument response and an acceptable degree of linearity for each targeted analyte. During the 22May01 calibration, an unacceptably low response was reported for the two lowest vinyl chloride standards. Based on this performance, it cannot be assumed that this analyte would be detected if present in samples. Because vinyl chloride was not detected, the negative result reported from each program sample has been rejected.

Continuing calibration verification standards were analyzed prior to each twelve hour period of instrument operation. These checks demonstrated an acceptable level of instrument stability.

SURROGATES
Each sample, blank and standard is spiked with surrogate compounds prior to analysis. The structures of surrogates are similar to analytes of interest, but they are not normally found in environmental samples. Surrogate recoveries are monitored to evaluate overall laboratory performance and the efficiency of laboratory technique.

Surrogate standard summary reports were properly prepared; the correct acceptance criteria applied. The surrogate standard recoveries reported from this group of samples satisfied the program acceptance criteria.

INTERNAL STANDARDS
Internal standards are added to each sample, blank and standard just prior to injection. Analyte concentrations are calculated relative to the response of a specific internal standard. Internal

standard performance criteria ensure that GC/MS sensitivity and response are stable during the analysis of each sample. The area of internal standard peaks may not vary by more than a factor of two. When compared to the preceding calibration check, retention times may not vary by more than 30 seconds.

The laboratory correctly calculated control limits for internal standard response and retention times. The response and retention time of each internal standard that was added to this group of samples fell within the calculated limits of acceptance.

MATRIX SPIKES / MATRIX SPIKE DUPLICATES / MATRIX SPIKED BLANKS

Matrix spiking refers to the addition of known analyte concentrations to a sample, prior to analysis. Analyte recoveries provide an indication of laboratory accuracy. The analysis of a duplicate spiked aliquot provides a measurement of precision.

T18-1 was selected for matrix spiking. The recoveries reported for analyte additions to two portions of this sample demonstrated acceptable levels of analytical precision and accuracy. Acceptable recoveries were also reported from two spiked blanks.

DUPLICATES

Two aliquots of the same sample are processed separately through all aspects of sample preparation and analysis. Results produced by the analysis of this pair of samples are compared as a measurement of precision. Poor precision may be indicative of sample non-homogeneity, method defects or poor laboratory technique.

Field split duplicates were not included in this group of samples.

REPORTED ANALYTES

Formal reports were provided for each sample. The data package also included total ion chromatograms and raw instrument printouts. Laboratory results have been adjusted to reflect sample size and moisture content. Reference mass spectra were provided to confirm the identification of each targeted analyte that was detected in this group of samples. It is noted that the identifications of ethylbenzene in T17-1 and T19-1, and xylene in T16-1, T17-1, T18-1, T19-1 and T20-1 could not be conclusively confirmed using the mass spectra references supplied by the laboratory. Ethylbenzene and xylene should be considered undetected in the affected samples.

Tentatively Identified Compounds (TIC) were reported from this group of samples. Frequently, these identifications were not soundly supported by the library searches contained in the raw data. Where appropriate, Form 1E has been corrected.

SUMMARY OF QUALIFIED DATA

FORMER BROWN MANUFACTURING SITE

SAMPLED 5/15/01 thru 5/17/01

		BLANKS METH CHLORIDE	CALIBRATE VINYL CHLORIDE	BLANK ACETONE	BLANKS CHLOROFORM	SPECTRA ID TARGETS	SPECTRA ID TIC
T16-1	(13801065)	1900U	REJECT	2000J	1200J	ID1,2 830U	EDIT
T16-2	(13801066)	670U	REJECT	910J	440J		
T17-1	(13801067)	2200U	REJECT	680J	140J	ID1,2 420U	EDIT
T18-1	(13801069)	940U	REJECT	670J	540J	ID2 400U	EDIT
T19-1	(13801071)	1100U	REJECT	780J	690J	ID1,2 530U	EDIT
T20-1	(13801073)	820U	REJECT	500J	510J	ID2 340U	EDIT

ID1 = ethylbenzene
ID2 = xylene

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

T-16-1

Lab Name: UPSTATE LABS INC Contract: BEARDSLE

Lab Code: 10170 Case No.: 01 SAS No.: SDG No.: BEA01

Matrix: (soil/water) SOIL Lab Sample ID: 13801065

Sample wt/vol: 0.5 (g/ml) G Lab File ID: C8797.D

Level: (low/med) LOW Date Received: 5/18/01

% Moisture: not dec. 88 Date Analyzed: 5/24/01

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	830	U
75-1-4	Vinyl Chloride	~~830~~	~~U~~ R
74-83-9	Bromomethane	830	U
75-00-3	Chloroethane	830	U
67-64-1	Acetone	2000	J
75-35-4	1,1-Dichloroethene	830	U
75-15-0	Carbon Disulfide	830	U
75-09-2	Methylene Chloride	1900	~~B~~ U
156-60-5	trans-1,2-Dichloroethene	830	U
75-34-33	1,1-Dichloroethane	830	U
78-93-3	2-Butanone	830	U
156-59-2	cis-1,2-Dichloroethene	830	U
67-66-3	Chloroform	1200	J
71-55-6	1,1,1-Trichloroethane	830	U
56-23-5	Carbon Tetrachloride	830	U
71-43-2	Benzene	830	U
107-06-2	1,2-Dichloroethane	830	U
97-01-6	Trichloroethene	830	U
78-87-5	1,2-Dichloropropane	830	U
75-27-4	Bromodichloromethane	830	U
108-10-1	4-Methyl-2-pentanone	830	U
10061-1-5	cis-1,3-Dichloropropene	830	U
108-88-3	Toluene	830	U
10061-2-6	trans-1,3-Dichloropropene	830	U
79-00-5	1,1,2-Trichloroethane	830	U
591-78-6	2-Hexanone	830	U
127-18-4	Tetrachloroethene	830	U
124-48-1	Dibromochloromethane	830	U
108-90-7	Chlorobenzene	830	U
100-41-4	Ethylbenzene	830	U
108-38-3	m,p-Xylene	~~110~~ 830	~~J~~ U
95-47-6	o-Xylene	~~140~~ 830	~~J~~ U
100-42-5	Styrene	830	U
75-25-2	Bromoform	830	U
79-34-5	1,1,2,2-Tetrachloroethane	830	U

JBR

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T-16-2

Lab Name: UPSTATE LABS INC Contract: BEARDSLE

Lab Code: 10170 Case No.: 01 SAS No.: _____ SDG No.: BEA01

Matrix: (soil/water) SOIL Lab Sample ID: 13801066

Sample wt/vol: 0.5 (g/ml) G Lab File ID: C8798.D

Level: (low/med) LOW Date Received: 5/18/01

% Moisture: not dec. 70 Date Analyzed: 5/24/01

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

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

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	330	U
75-1-4	Vinyl Chloride	~~330~~	~~U~~ R
74-83-9	Bromomethane	330	U
75-00-3	Chloroethane	330	U
67-64-1	Acetone	910	J
75-35-4	1,1-Dichloroethene	330	U
75-15-0	Carbon Disulfide	330	U
75-09-2	Methylene Chloride	670	~~B~~ U
156-60-5	trans-1,2-Dichloroethene	330	U
75-34-33	1,1-Dichloroethane	330	U
78-93-3	2-Butanone	330	U
156-59-2	cis-1,2-Dichloroethene	330	U
67-66-3	Chloroform	440	J
71-55-6	1,1,1-Trichloroethane	330	U
56-23-5	Carbon Tetrachloride	330	U
71-43-2	Benzene	330	U
107-06-2	1,2-Dichloroethane	330	U
97-01-6	Trichloroethene	330	U
78-87-5	1,2-Dichloropropane	330	U
75-27-4	Bromodichloromethane	330	U
108-10-1	4-Methyl-2-pentanone	330	U
10061-1-5	cis-1,3-Dichloropropene	330	U
108-88-3	Toluene	330	U
10061-2-6	trans-1,3-Dichloropropene	330	U
79-00-5	1,1,2-Trichloroethane	330	U
591-78-6	2-Hexanone	330	U
127-18-4	Tetrachloroethene	330	U
124-48-1	Dibromochloromethane	330	U
108-90-7	Chlorobenzene	330	U
100-41-4	Ethylbenzene	330	U
108-38-3	m,p-Xylene	330	U
95-47-6	o-Xylene	330	U
100-42-5	Styrene	330	U
75-25-2	Bromoform	330	U
79-34-5	1,1,2,2-Tetrachloroethane	330	U

750

0000171

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

T-17-1

Lab Name: UPSTATE LABS INC Contract: BEARDSLE

Lab Code: 10170 Case No.: 01 SAS No.: SDG No.: BEA01

Matrix: (soil/water) SOIL Lab Sample ID: 13801067

Sample wt/vol: 0.5 (g/ml) G Lab File ID: C8799.D

Level: (low/med) LOW Date Received: 5/18/01

% Moisture: not dec. 76 Date Analyzed: 5/24/01

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	420	U
75-1-4	Vinyl Chloride	~~420~~	~~U~~ R
74-83-9	Bromomethane	420	U
75-00-3	Chloroethane	420	U
67-64-1	Acetone	680	J
75-35-4	1,1-Dichloroethene	420	U
75-15-0	Carbon Disulfide	420	U
75-09-2	Methylene Chloride	2200	BU
156-60-5	trans-1,2-Dichloroethene	420	U
75-34-33	1,1-Dichloroethane	420	U
78-93-3	2-Butanone	420	U
156-59-2	cis-1,2-Dichloroethene	420	U
67-66-3	Chloroform	140	J
71-55-6	1,1,1-Trichloroethane	420	U
56-23-5	Carbon Tetrachloride	420	U
71-43-2	Benzene	420	U
107-06-2	1,2-Dichloroethane	420	U
97-01-6	Trichloroethene	420	U
78-87-5	1,2-Dichloropropane	420	U
75-27-4	Bromodichloromethane	420	U
108-10-1	4-Methyl-2-pentanone	420	U
10061-1-5	cis-1,3-Dichloropropene	420	U
108-88-3	Toluene	420	U
10061-2-6	trans-1,3-Dichloropropene	420	U
79-00-5	1,1,2-Trichloroethane	420	U
591-78-6	2-Hexanone	420	U
127-18-4	Tetrachloroethene	420	U
124-48-1	Dibromochloromethane	420	U
108-90-7	Chlorobenzene	420	U
100-41-4	Ethylbenzene	420 ~~420~~	J U
108-38-3	m,p-Xylene	420 ~~140~~	J U
95-47-6	o-Xylene	420 ~~82~~	J U
100-42-5	Styrene	420	U
75-25-2	Bromoform	420	U
79-34-5	1,1,2,2-Tetrachloroethane	420	U

0000178

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T-18-1

Lab Name: UPSTATE LABS INC Contract: BEARDSLE

Lab Code: 10170 Case No.: 01 SAS No.: SDG No.: BEA01

Matrix: (soil/water) SOIL Lab Sample ID: 13801069

Sample wt/vol: 0.5 (g/ml) G Lab File ID: C8800.D

Level: (low/med) LOW Date Received: 5/18/01

% Moisture: not dec. 75 Date Analyzed: 5/24/01

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	400	U
75-1-4	Vinyl Chloride	~~400~~	~~U~~ R
74-83-9	Bromomethane	400	U
75-00-3	Chloroethane	400	U
67-64-1	Acetone	670	J
75-35-4	1,1-Dichloroethene	400	U
75-15-0	Carbon Disulfide	400	U
75-09-2	Methylene Chloride	940	~~B~~ U
156-60-5	trans-1,2-Dichloroethene	400	U
75-34-33	1,1-Dichloroethane	400	U
78-93-3	2-Butanone	400	U
156-59-2	cis-1,2-Dichloroethene	400	U
67-66-3	Chloroform	540	J
71-55-6	1,1,1-Trichloroethane	400	U
56-23-5	Carbon Tetrachloride	400	U
71-43-2	Benzene	400	U
107-06-2	1,2-Dichloroethane	400	U
97-01-6	Trichloroethene	400	U
78-87-5	1,2-Dichloropropane	400	U
75-27-4	Bromodichloromethane	400	U
108-10-1	4-Methyl-2-pentanone	400	U
10061-1-5	cis-1,3-Dichloropropene	400	U
108-88-3	Toluene	400	U
10061-2-6	trans-1,3-Dichloropropene	400	U
79-00-5	1,1,2-Trichloroethane	400	U
591-78-6	2-Hexanone	400	U
127-18-4	Tetrachloroethene	400	U
124-48-1	Dibromochloromethane	400	U
108-90-7	Chlorobenzene	400	U
100-41-4	Ethylbenzene	400	U
108-38-3	m,p-Xylene	400 ~~53~~	~~J~~ U
95-47-6	o-Xylene	400	U
100-42-5	Styrene	400	U
75-25-2	Bromoform	400	U
79-34-5	1,1,2,2-Tetrachloroethane	400	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

T-19-1

Lab Name: UPSTATE LABS INC Contract: BEARDSLE

Lab Code: 10170 Case No.: 01 SAS No.: SDG No.: BEA01

Matrix: (soil/water) SOIL Lab Sample ID: 13801071

Sample wt/vol: 0.5 (g/ml) G Lab File ID: C8801.D

Level: (low/med) LOW Date Received: 5/18/01

% Moisture: not dec. 81 Date Analyzed: 5/24/01

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Allquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	530	U
75-1-4	Vinyl Chloride	~~530~~	~~U~~ R
74-83-9	Bromomethane	530	U
75-00-3	Chloroethane	530	U
67-64-1	Acetone	780	J
75-35-4	1,1-Dichloroethene	530	U
75-15-0	Carbon Disulfide	530	U
75-09-2	Methylene Chloride	1100	~~B~~ U
156-60-5	trans-1,2-Dichloroethene	530	U
75-34-33	1,1-Dichloroethane	530	U
78-93-3	2-Butanone	530	U
156-59-2	cis-1,2-Dichloroethene	530	U
67-66-3	Chloroform	690	J
71-55-6	1,1,1-Trichloroethane	530	U
56-23-5	Carbon Tetrachloride	530	U
71-43-2	Benzene	530	U
107-06-2	1,2-Dichloroethane	530	U
97-01-6	Trichloroethene	530	U
78-87-5	1,2-Dichloropropane	530	U
75-27-4	Bromodichloromethane	530	U
108-10-1	4-Methyl-2-pentanone	530	U
10061-1-5	cis-1,3-Dichloropropene	530	U
108-88-3	Toluene	530	U
10061-2-6	trans-1,3-Dichloropropene	530	U
79-00-5	1,1,2-Trichloroethane	530	U
591-78-6	2-Hexanone	530	U
127-18-4	Tetrachloroethene	530	U
124-48-1	Dibromochloromethane	530	U
108-90-7	Chlorobenzene	530	U
100-41-4	Ethylbenzene	530 ~~110~~	~~J~~ U
108-38-3	m,p-Xylene	530 ~~150~~	~~J~~ U
95-47-6	o-Xylene	100	J
100-42-5	Styrene	530	U
75-25-2	Bromoform	530	U
79-34-5	1,1,2,2-Tetrachloroethane	530	U

0000209

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

T-20-1

Lab Name: UPSTATE LABS INC Contract: BEARDSLE

Lab Code: 10170 Case No.: 01 SAS No.: _____ SDG No.: BEA01

Matrix: (soil/water) SOIL Lab Sample ID: 13801073

Sample wt/vol: 0.5 (g/ml) G Lab File ID: C8802.D

Level: (low/med) LOW Date Received: 5/18/01

% Moisture: not dec. 71 Date Analyzed: 5/24/01

GC Column: RTX-VO ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	340	U
75-1-4	Vinyl Chloride	~~340~~	~~U~~ R
74-83-9	Bromomethane	340	U
75-00-3	Chloroethane	340	U
67-64-1	Acetone	500	J
75-35-4	1,1-Dichloroethene	340	U
75-15-0	Carbon Disulfide	340	U
75-09-2	Methylene Chloride	820	~~B~~ U
156-60-5	trans-1,2-Dichloroethene	340	U
75-34-33	1,1-Dichloroethane	340	U
78-93-3	2-Butanone	340	U
156-59-2	cis-1,2-Dichloroethene	340	U
67-66-3	Chloroform	510	J
71-55-6	1,1,1-Trichloroethane	340	U
56-23-5	Carbon Tetrachloride	340	U
71-43-2	Benzene	340	U
107-06-2	1,2-Dichloroethane	340	U
97-01-6	Trichloroethene	340	U
78-87-5	1,2-Dichloropropane	340	U
75-27-4	Bromodichloromethane	340	U
108-10-1	4-Methyl-2-pentanone	340	U
10061-1-5	cis-1,3-Dichloropropene	340	U
108-88-3	Toluene	340	U
10061-2-6	trans-1,3-Dichloropropene	340	U
79-00-5	1,1,2-Trichloroethane	340	U
591-78-6	2-Hexanone	340	U
127-18-4	Tetrachloroethene	340	U
124-48-1	Dibromochloromethane	340	U
108-90-7	Chlorobenzene	340	U
100-41-4	Ethylbenzene	340	U
108-38-3	m,p-Xylene	340 ~~190~~	~~J~~ U
95-47-6	o-Xylene	110	J
100-42-5	Styrene	340	U
75-25-2	Bromoform	340	U
79-34-5	1,1,2,2-Tetrachloroethane	340	U

340

DATA USABILITY SUMMARY REPORT

for

BEARDSLEY DESIGN ASSOCIATES

431 EAST FAYETTE STREET

EAST SYRACUSE, NY 13202

FORMER BROWN MANUFACTURING SITE
SDG BEA01
Sampled 05/15/01, 05/16/01, 05/17/01

SOILS SAMPLES for SEMIVOLATILE ORGANICS

T16-1	(13801065)	T16-2	(13801066)	T17-1	(13801067)
T17-2	(13801068)	T18-1	(13801069)	T18-2	(13801070)
T19-1	(13801071)	T19-2	(13801072)	T20-1	(13801073)
T20-2	(13801074)	T21-1	(13801075)	T21-2	(13801076)
T22-1	(13801077)				

DATA ASSESSMENT

A semivolatile organics data package containing analytical results for thirteen soil samples, was received from Beardsley Design Associates on 16Nov01. The ASP deliverables package included formal reports, raw data, the necessary QC, and supporting information. The samples, taken from the Former Brown Manufacturing site, were identified by Chain of Custody documents and trackable through the work of Upstate Laboratories, Inc., the laboratory contracted for analysis. Analyses, performed according to SW-846 Method 8270, addressed Target Compound List analytes. Laboratory data was evaluated according to the Quality Assurance / Quality Control Requirements of the New York State Department of Environmental Conservation's Analytical Services Protocol (ASP), September 1989, Rev. 6/2000. When ASP protocol was not followed, the current EPA Region II Functional Guidelines (SPO NO. HW-6, Rev. #8, Jan. 1992, CLP Organics Data Review and Preliminary Review), was used as a technical reference.

Traces of phthalates were detected in T16-1, T17-1, T18-2, T19-2, T21-1, T21-2 and T22-1. When present, phthalates are assumed to represent laboratory artifacts. As such, all phthalates should be interpreted as undetected in program samples.

Aldol Condensation products and "unidentified" TIC's were present in the method blank associated with this group of samples. When present in samples, these artifacts have been removed from Form 1F.

The results reported from T16-1 and T16-2 have been qualified as estimations due to poor surrogate standard recoveries.

A poor instrument response was reported for the additions of IS#4, IS#5 and IS#6 to T16-1. Every internal standard added to T16-2, T17-1, T18-1, T19-1, T20-1 and 20-2 also produced a low response. Analytes dependant upon the response of these internal standards have been qualified as estimations in the affected samples.

The pentachlorophenol result reported from each program sample has been rejected due to poor calibration performance.

CORRECTNESS AND USABILITY

The identifications of fluorene, anthracene, pyrene, bis(2-ethylhexyl)phthalate, naphthalene, acenaphthene and dibenzofuran from T16-1, T17-1, T18-1, T19-1, T20-1 and/or T20-2 were not conclusive, based on the mass spectra references provided by the laboratory. Where affected, these analytes should be considered undetected.

The Tentatively Identified Compounds (TIC) reported from every sample included identifications that were not conclusively supported by the library searches supplied by the laboratory. The

affected identifications have been edited on Form 1F.

Reported data should be considered technically defensible in its present form. Reported concentrations that are felt to provide a usable estimation of the conditions being measured have been flagged "J" or "UJ". Data that is felt to be unreliable has been identified with a single red line and flagged "R". Rejected data should not be included in data tables. Estimated data should be used with caution. A detailed discussion of the review process follows.

Two facts should be considered by all data users. No compound concentration, even if it has passed all QC testing, can be guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error. Secondly. DATAVAL, Inc. guarantees the quality of this data assessment. However, DATAVAL, Inc. does not warrant any interpretation or utilization of this data by a third party.

Reviewer's signature: James B. Baldwin Date: 4/21/12

SAMPLE HISTORY

Analyte concentrations can deteriorate with time due to chemical instability, bacterial degradation or volatility. Samples that are not properly preserved, or are not analyzed within established holding times, may no longer be considered representative. Holding times are calculated from the time of sample collection. Samples must remain chilled to 4°C from the time of collection. Aqueous samples must be extracted within 7 days. The extraction of soil samples must begin within 14 days of collection. Analyses must be completed within 40 days of extraction. Each sample delivery group, containing up to 20 samples, should include a field duplicate, a matrix spike, matrix spike duplicate, and a rinsate blank.

This sample delivery group, which included thirteen soil samples, was collected from the Former Brown Manufacturing site between 15May01 and 17May01. Three samples collected on 15MAy01, five collected on 16May01, and five collected on 17May01 were delivered to the laboratory, after hours, on the day of collection. Each cooler of samples arrived intact. The sample receipt log indicated that the sample coolers contained ice. It is noted that only one cooler temperature, 5.9°C, was documented in the sample receipt log.

Sample extractions were performed on 24May01. Analyses, including reruns, were completed by 14Jun01. Program holding time limitations were satisfied.

Dilutions of T16-1, T16-2, T17-1, T18-1, T19-1, T20-1 and T20-2 were also included in the raw data. However, none of these samples contained analyte concentrations exceeding the range of calibration. The results obtained from diluted samples should not be included in data tables.

BLANKS

Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Method blanks are analyzed to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank. Any sample concentration less than 5 times the level determined in a blank must be qualified. The qualification criteria is extended to ten times the concentration observed in blanks for common laboratory artifacts. These include phthalate esters.

One method blank was analyzed with this group of samples. This blank contained a trace of bis(2-ethylhexyl)phthalate. When present in samples, similar artifacts have been qualified. Phthalates should be considered undetected in program samples. Detection limits equaling CRDL or the reported concentration, whichever is greater, should be assumed.

An Aldol Condensation product, 4-hydroxy-4-methyl-2-pentanone, and a large number of unidentified TIC's were also present in blanks.

When present in samples, they have been removed from Form 1F.

MS TUNING
Mass spectrometer tuning and performance criteria are established to ensure sufficient mass resolution and sensitivity to accurately detect and identify targeted analytes. Verification is accomplished using a certified standard.

An Instrument Performance Check Standard of DFTPP was analyzed prior to each analytical sequence and during every 12 hour period of instrument operation. An Instrument Performance Check Form is present for each DFTPP evaluation. The DFTPP tunes associated with this group of samples satisfied the program acceptance criteria.

CALIBRATION
Requirements for instrument calibration are established to ensure that laboratory equipment is capable of producing accurate, quantitative data. Initial calibrations demonstrate a range through which measurements may be made. Continuing calibration standards verify instrument stability.

The required levels of initial calibration were performed on 30Apr01. Standards of 20, 50, 80, 120 and 160 ng were included. With the exception of pentachlorophenol, the calibration curve for each analyte demonstrated the required levels of instrument response and an acceptable degree of linearity. Pentachlorophenol standards demonstrated poor linearity. Each calibration standard did, however, generate the minimum required level of instrument response. Although errors might be expected in the calculation of pentachlorophenol concentrations, it may be assumed that this analyte would be detected if present in samples. Because pentachlorophenol was not detected, data has been left unqualified.

A continuing calibration verification was completed prior to each twelve hour period of instrument operation. During each of these checks, pentachlorophenol failed to produce the required minimum level of instrument response. Based on this performance, the pentachlorophenol result reported from each program sample has been rejected.

During the 14Jun01 calibration check, an unacceptably large shift was also observed in the signal produced by 2,4-dinitrotoluene. In this case, however, the required level of response was achieved. 2,4-Dinitrotoluene results have been left unqualified.

SURROGATES
Each sample, blank and standard is spiked with surrogate compounds prior to analysis. The structures of surrogates are similar to analytes of interest, but they are not normally found in environmental samples. Surrogate recoveries are monitored to evaluate overall laboratory performance and the efficiency of laboratory technique.

The acceptance criteria applied to surrogate standard recoveries required correction. These changes, however, had no affect on the interpretation of reported data. Unacceptably low recoveries were reported for the surrogate standard additions to T16-1 and T16-2. Based on this performance, data reported from this pair of samples has been qualified as an estimation.

Low surrogate recoveries were also reported from seven diluted samples. Because the samples were diluted following the addition of surrogates, the reported recoveries are not considered significant.

INTERNAL STANDARDS

Internal standards are added to each sample, blank and standard just prior to injection. Analyte concentrations are calculated relative to the response of a specific internal standard. Internal standard performance criteria ensure that GC/MS sensitivity and response are stable during the analysis of each sample. The area of internal standard peaks may not vary by more than a factor of two. When compared to the preceding calibration check, retention times may not vary by more than 30 seconds.

Internal standard summary forms were prepared incorrectly on pages 362, 363 and 364. On pages 362 and 363, the tenth sample is actually a calibration verification standard that should have been used to prepare another Form 8B. When the response of this standard is considered, the associated samples demonstrate acceptable internal standard response. They do require qualification, as indicated by he laboratory.

Although page 364 was also prepared incorrectly, the only affected samples were dilutions. As previously noted, data from diluted samples should not be included in data tabes.

At least one internal standard addition to every program sample produced an unacceptable response. T17-2, T18-2, T19-2, T21-1, T21-2 and T22-1 were reanalyzed. Each repeated analysis produced acceptable internal standard performance. Results obtained from the repeated analysis of these samples should be included in data tables.

T16-1, T16-2, T17-1, T18-1, T19-1, T20-1 and T20-2 were reanalyzed following a dilution. The analyte concentrations present in these samples did not necessitate dilutions. The qualified results reported from the initial analysis of these samples should be included in data tables.

Unacceptable internal standard performance is tabulated below.

SAMPLE	AFFECTED INTERNAL STANDARDS
T16-1	phenanthrene-d10, chrysene-d12, perylene-d12
T16-2	1,4-dichlorobenzene-d4, naphthalene-d8, acenaphthene-d10 phenanthrene-d10, chrysene-d12, perylene-d12

SAMPLE	AFFECTED INTERNAL STANDARDS
T17-1	1,4-dichlorobenzene-d4, naphthalene-d8, acenaphthene-d10 phenanthrene-d10, chrysene-d12, perylene-d12
T18-1	1,4-dichlorobenzene-d4, naphthalene-d8, acenaphthene-d10 phenanthrene-d10, chrysene-d12, perylene-d12
T19-1	1,4-dichlorobenzene-d4, naphthalene-d8, acenaphthene-d10 phenanthrene-d10, chrysene-d12, perylene-d12
T20-1	1,4-dichlorobenzene-d4, naphthalene-d8, acenaphthene-d10 phenanthrene-d10, chrysene-d12, perylene-d12
T20-2	1,4-dichlorobenzene-d4, naphthalene-d8, acenaphthene-d10 phenanthrene-d10, chrysene-d12, perylene-d12

Analytes dependant upon the response of each affected internal standard have been qualified as estimations.

MATRIX SPIKES / MATRIX SPIKE DUPLICATES / MATRIX SPIKED BLANKS
Matrix spiking refers to the addition of known analyte concentrations to a sample, prior to analysis. Analyte recoveries provide an indication of laboratory accuracy. The analysis of a duplicate spiked aliquot provides a measurement of precision.

Sample T18-1 was selected for matrix spiking. The analyte additions to two portions of this sample were recovered successfully. It is noted that the duplicate measurements of 4-nitrophenol demonstrated poor measurement precision (72% RPD). This performance alone, does not warrant data qualifications.

Spike recoveries were also reported for diluted aliquots of T18-1MS and T18-1MSD. These dilutions were performed after the sample was spiked. The low recoveries reported from this MS/MSD pair should be ignored.

DUPLICATES
Two aliquots of the same sample are processed separately through all aspects of sample preparation and analysis. Results produced by the analysis of this pair of samples are compared as a measurement of precision. Poor precision, may be indicative of sample non-homogeneity, method defects, or poor laboratory technique.

Field split duplicates were not included in this group of samples.

SAMPLE INFORMATION
Formal reports were provided for each sample. The data package also included total ion chromatograms and raw instrument printouts.

Sample chromatograms were properly attenuated. Mass spectra references were provided to confirm the identification of each reported analyte. When the laboratory generated references failed to provide a conclusive identification, Form 1 was edited to indicate a negative result. Questionable identifications are tabulated below.

SAMPLE	QUESTIONABLE IDENTIFICATIONS
T16-1	fluorene, anthracene, pyrene, bis(2-ethylhexyl)phthalate
T17-1	naphthalene, fluorene, pyrene
T18-1	acenaphthene, dibenzofuran, fluorene, anthracene, pyrene
T19-1	naphthalene, fluorene, pyrene
T20-1	fluorene, bis(2-ethylhexyl)phthalate
T20-2	fluorene

In several cases, TIC identifications were not conclusively supported by the library searches included in the raw data. In such cases, Form 1F has been edited to indicate an appropriate identification. The Form 1F of every sample has been corrected.

SUMMARY OF QUALIFIED DATA

FORMER BROWN MANUFACTURING SITE — SAMPLED 11/15/99 thru 11/18/99

		BLANK TIC	BLANK PHTHALATE	INTERNAL STD	SPECTRA ID TARGETS	SPECTRA ID TIC	SURROGATES	CL5PHENOL
T16-1	(13801065)	REMOVE	380U	IS J/UJ	ID U	EDIT	ALL J/UJ	REJECT
T16-2	(13801066)	REMOVE		ALL UJ		EDIT	ALL J/UJ	REJECT
T17-1	(13801067)	REMOVE		ALL J/UJ	ID U	EDIT		REJECT
T17-2	(13801068)	REMOVE	530U			EDIT		REJECT
T18-1	(13801069)	REMOVE		ALL J/UJ	ID U	EDIT		REJECT
T18-2	(13801070)	REMOVE	1300U/430U			EDIT		REJECT
T19-1	(13801071)	REMOVE		ALL J/UJ	ID U	EDIT		REJECT
T19-2	(13801072)	REMOVE	1200U/430U			EDIT		REJECT
T20-1	(13801073)	REMOVE		ALL J/UJ	ID U	EDIT		REJECT
T20-2	(13801074)	REMOVE		ALL J/UJ	ID U	EDIT		REJECT
T21-1	(13801075)	REMOVE	420U			EDIT		REJECT
T21-2	(13801076)	REMOVE	420U			EDIT		REJECT
T22-1	(13801077)	REMOVE	460U			EDIT		REJECT

IS = 4,6-dinitro-2-methylphenol, n-nitrosodiphenylamine, 4-bromophenylphenylether, hexachlorobenzene, pentachlorophenol, phenanthrene, anthracene, di-n-butylphthalate, carbazole, Fluoranthene pyrene, butylbenzylhthalate, 3,3'dichlorobenzidine, benzo[a]anthracene, chrysene, bis(2-ethyl-hexyl)phthalate, di-n-octylphthalae, benzo[b]fluoranthene, benzo[k]fluoranthene, benzo[a]pyrene, indeno[1,2,3-cd]pyrene, dibenz[a,h]anthracene, benzo[g,h,i]perylene

ID = questionable identifications are tabulated on page 8

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

T-16-1

Lab Name: Upstate Laboratories, Inc Contract: Beardsley

Lab Code: 10170 Case No.: SAS No.: SDG No.: BEA01

Matrix: (soil/water) SOIL Lab Sample ID: 13801065,sa2848,b

Sample wt/vol: 30 (g/ml) G Lab File ID: B12755.D

Level: (low/med) LOW Date Received: 5/18/01

% Moisture: 12 decanted:(Y/N) N Date Extracted: 5/24/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/4/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
111-44-4	bis(2-Chloroethyl)ether	380	U
108-95-2	Phenol	380	U
95-57-8	2-Chlorophenol	380	U
541-73-1	1,3-Dichlorobenzene	380	U
106-46-7	1,4-Dichlorobenzene	380	U
95-50-1	1,2-Dichlorobenzene	380	U
108-60-1	bis(2-Chloroisopropyl)ether	380	U
95-48-7	2-Methylphenol	380	U
67-72-1	Hexachloroethane	380	U
621-64-7	N-Nitroso-di-n-propylamine	380	U
106-44-5	4-Methylphenol	380	U
98-95-3	Nitrobenzene	380	U
78-59-1	Isophorone	380	U
88-75-5	2-Nitrophenol	380	U
105-67-9	2,4-Dimethylphenol	380	U
111-91-1	bis(2-Chloroethoxy)methane	380	U
120-83-2	2,4-Dichlorophenol	380	U
120-82-1	1,2,4-Trichlorobenzene	380	U
91-20-3	Naphthalene	380	U
106-47-8	4-Chloroaniline	380	U
87-68-3	Hexachlorobutadiene	380	U
59-50-7	4-Chloro-3-methylphenol	380	U
91-57-6	2-Methylnaphthalene	380	U
77-47-4	Hexachlorocyclopentadiene	380	U
88-06-2	2,4,6-Trichlorophenol	380	U
95-95-4	2,4,5-Trichlorophenol	950	U
91-58-7	2-Chloronaphthalene	380	U
88-74-4	2-Nitroaniline	950	U
208-96-8	Acenaphthylene	380	U
131-11-3	Dimethyl phthalate	380	U
606-20-2	2,6-Dinitrotoluene	380	U
83-32-9	Acenaphthene	380	U
99-09-2	3-Nitroaniline	950	U
51-28-5	2,4-Dinitrophenol	950	U
132-64-9	Dibenzofuran	380	U
121-14-2	2,4-Dinitrotoluene	380	U
100-02-7	4-Nitrophenol	950	U

0000368

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

T-16-1

Lab Name: Upstate Laboratories, Inc Contract: Beardsley

Lab Code: 10170 Case No.: _____ SAS No.: _____ SDG No.: BEA01

Matrix: (soil/water) SOIL Lab Sample ID: 13801065,sa2848,b

Sample wt/vol: 30 (g/ml) G Lab File ID: B12755.D

Level: (low/med) LOW Date Received: 5/18/01

% Moisture: 12 decanted:(Y/N) N Date Extracted: 5/24/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/4/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		Q
86-73-7	Fluorene	380 ~~91~~	~~J~~ U
7005-72-3	4-Chlorophenyl phenyl ether	380	U
84-66-2	Diethyl phthalate	380	U
100-01-6	4-Nitroaniline	950	U
534-52-1	4,6-Dinitro-2-methylphenol	950	U
86-30-6	n-Nitrosodiphenylamine	380	U
101-55-3	4-Bromophenyl phenyl ether	380	U UJ
118-74-1	Hexachlorobenzene	380	U
87-86-5	Pentachlorophenol	~~950~~	~~U~~ R
85-01-8	Phenanthrene	740	J
120-12-7	Anthracene	380 ~~200~~	~~J~~ UJ
84-74-2	Di-n-butyl phthalate	380	U
86-74-8	Carbazole	380	U UJ
206-44-0	Fluoranthene	380	U
129-00-0	Pyrene	380 ~~750~~	UJ
85-68-7	Butyl benzyl phthalate	380	U
91-94-1	3,3'-Dichlorobenzidine	380	U UJ
56-55-3	Benzo[a]anthracene	380	U
218-01-9	Chrysene	2000	J
117-81-7	bis(2-Ethylhexyl)phthalate	380 ~~110~~	~~JB~~ UJ
117-84-0	Di-n-octyl phthalate	380	U
205-99-2	Benzo[b]fluoranthene	380	U
207-08-9	Benzo[k]fluoranthene	380	U
50-32-8	Benzo[a]pyrene	380	U
193-39-5	Indeno[1,2,3-cd]pyrene	380	U UJ
53-70-3	Dibenz[a,h]anthracene	380	U
191-24-2	Benzo[g,h,i]perylene	380	U
100-51-6	Benzyl alcohol	380	U
65-85-0	Benzoic acid	1900	U

JB

0000369

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T-16-2

Lab Name: Upstate Laboratories, Inc Contract: Beardsley

Lab Code: 10170 Case No.: BEA01 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 13801066,sa2848,b

Sample wt/vol: 30 (g/ml) G Lab File ID: B12756.D

Level: (low/med) LOW Date Received: 5/18/01

% Moisture: 30 decanted:(Y/N) N Date Extracted: 5/24/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/4/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
111-44-4	bis(2-Chloroethyl)ether	480	U
108-95-2	Phenol	480	U
95-57-8	2-Chlorophenol	480	U
541-73-1	1,3-Dichlorobenzene	480	U
106-46-7	1,4-Dichlorobenzene	480	U
95-50-1	1,2-Dichlorobenzene	480	U
108-60-1	bis(2-Chloroisopropyl)ether	480	U
95-48-7	2-Methylphenol	480	U
67-72-1	Hexachloroethane	480	U
621-64-7	N-Nitroso-di-n-propylamine	480	U
106-44-5	4-Methylphenol	480	U
98-95-3	Nitrobenzene	480	U
78-59-1	Isophorone	480	U
88-75-5	2-Nitrophenol	480	U
105-67-9	2,4-Dimethylphenol	480	U
111-91-1	bis(2-Chloroethoxy)methane	480	U
120-83-2	2,4-Dichlorophenol	480	U
120-82-1	1,2,4-Trichlorobenzene	480	U
91-20-3	Naphthalene	480	U
106-47-8	4-Chloroaniline	480	U
87-68-3	Hexachlorobutadiene	480	U
59-50-7	4-Chloro-3-methylphenol	480	U
91-57-6	2-Methylnaphthalene	480	U
77-47-4	Hexachlorocyclopentadiene	480	U
88-06-2	2,4,6-Trichlorophenol	480	U
95-95-4	2,4,5-Trichlorophenol	1200	U
91-58-7	2-Chloronaphthalene	480	U
88-74-4	2-Nitroaniline	1200	U
208-96-8	Acenaphthylene	480	U
131-11-3	Dimethyl phthalate	480	U
606-20-2	2,6-Dinitrotoluene	480	U
83-32-9	Acenaphthene	480	U
99-09-2	3-Nitroaniline	1200	U
51-28-5	2,4-Dinitrophenol	1200	U
132-64-9	Dibenzofuran	480	U
121-14-2	2,4-Dinitrotoluene	480	U
100-02-7	4-Nitrophenol	1200	U

VJ

0000008

42C

TBS

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

T-16-2

Lab Name: Upstate Laboratories, Inc Contract: Beardsley

Lab Code: 10170 Case No.: BEA01 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 13801066,sa2848,b

Sample wt/vol: 30 (g/ml) G Lab File ID: B12756.D

Level: (low/med) LOW Date Received: 5/18/01

% Moisture: 30 decanted:(Y/N) N Date Extracted: 5/24/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/4/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
86-73-7	Fluorene	480	U
7005-72-3	4-Chlorophenyl phenyl ether	480	U
84-66-2	Diethyl phthalate	480	U
100-01-6	4-Nitroaniline	1200	U
534-52-1	4,6-Dinitro-2-methylphenol	1200	U
86-30-6	n-Nitrosodiphenylamine	480	U
101-55-3	4-Bromophenyl phenyl ether	480	U
118-74-1	Hexachlorobenzene	480	U
87-86-5	Pentachlorophenol	1200	U R
85-01-8	Phenanthrene	480	U
120-12-7	Anthracene	480	U
84-74-2	Di-n-butyl phthalate	480	U
86-74-8	Carbazole	480	U
206-44-0	Fluoranthene	480	U
129-00-0	Pyrene	480	U
85-68-7	Butyl benzyl phthalate	480	U UJ
91-94-1	3,3'-Dichlorobenzidine	480	U
56-55-3	Benzo[a]anthracene	480	U
218-01-9	Chrysene	480	U
117-81-7	bis(2-Ethylhexyl)phthalate	480	U
117-84-0	Di-n-octyl phthalate	480	U
205-99-2	Benzo[b]fluoranthene	480	U
207-08-9	Benzo[k]fluoranthene	480	U
50-32-8	Benzo[a]pyrene	480	U
193-39-5	Indeno[1,2,3-cd]pyrene	480	U
53-70-3	Dibenz[a,h]anthracene	480	U
191-24-2	Benzo[g,h,i]perylene	480	U
100-51-6	Benzyl alcohol	480	U
65-85-0	Benzoic acid	2400	U

JJS

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

T-17-1

Lab Name: Upstate Laboratories, Inc Contract: Beardsley

Lab Code: 10170 Case No.: SAS No.: SDG No.: BEA01

Matrix: (soil/water) SOIL Lab Sample ID: 13801067,sa2848,b

Sample wt/vol: 30 (g/ml) G Lab File ID: B12757.D

Level: (low/med) LOW Date Received: 5/18/01

% Moisture: 24 decanted:(Y/N) N Date Extracted: 5/24/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/4/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
111-44-4	bis(2-Chloroethyl)ether	440	U
108-95-2	Phenol	440	U
95-57-8	2-Chlorophenol	440	U
541-73-1	1,3-Dichlorobenzene	440	U
106-46-7	1,4-Dichlorobenzene	440	U
95-50-1	1,2-Dichlorobenzene	440	U
108-60-1	bis(2-Chloroisopropyl)ether	440	U
95-48-7	2-Methylphenol	440	U
67-72-1	Hexachloroethane	440	U
621-64-7	N-Nitroso-di-n-propylamine	440	U
106-44-5	4-Methylphenol	440	U
98-95-3	Nitrobenzene	440	U
78-59-1	Isophorone	440	U
88-75-5	2-Nitrophenol	440	U
105-67-9	2,4-Dimethylphenol	440	U
111-91-1	bis(2-Chloroethoxy)methane	440	U
120-83-2	2,4-Dichlorophenol	440	U
120-82-1	1,2,4-Trichlorobenzene	440	U
91-20-3	Naphthalene	440 ~~460~~	J
106-47-8	4-Chloroaniline	440	U
87-68-3	Hexachlorobutadiene	440	U
59-50-7	4-Chloro-3-methylphenol	440	U
91-57-6	2-Methylnaphthalene	620	J
77-47-4	Hexachlorocyclopentadiene	440	U
88-06-2	2,4,6-Trichlorophenol	440	U
95-95-4	2,4,5-Trichlorophenol	1100	U
91-58-7	2-Chloronaphthalene	440	U
88-74-4	2-Nitroaniline	1100	U
208-96-8	Acenaphthylene	440	U
131-11-3	Dimethyl phthalate	440	U
606-20-2	2,6-Dinitrotoluene	440	U
83-32-9	Acenaphthene	440	U
99-09-2	3-Nitroaniline	1100	U
51-28-5	2,4-Dinitrophenol	1100	U
132-64-9	Dibenzofuran	440	U
121-14-2	2,4-Dinitrotoluene	440	U
100-02-7	4-Nitrophenol	1100	U

UJ

UJ

UJ

790

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

T-17-1

Lab Name: Upstate Laboratories, Inc Contract: Beardsley

Lab Code: 10170 Case No.: SAS No.: SDG No.: BEA01

Matrix: (soil/water) SOIL Lab Sample ID: 13801067,sa2848,b

Sample wt/vol: 30 (g/ml) G Lab File ID: B12757.D

Level: (low/med) LOW Date Received: 5/18/01

% Moisture: 24 decanted:(Y/N) N Date Extracted: 5/24/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/4/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		Q
86-73-7	Fluorene	440 ~~480~~	U J
7005-72-3	4-Chlorophenyl phenyl ether	440	U
84-66-2	Diethyl phthalate	440	U
100-01-6	4-Nitroaniline	1100	U
534-52-1	4,6-Dinitro-2-methylphenol	1100	U
86-30-6	n-Nitrosodiphenylamine	440	U
101-55-3	4-Bromophenyl phenyl ether	440	U
118-74-1	Hexachlorobenzene	440	U
87-86-5	Pentachlorophenol	~~1100~~	U R
85-01-8	Phenanthrene	1600	J
120-12-7	Anthracene	440	U
84-74-2	Di-n-butyl phthalate	440	U
86-74-8	Carbazole	440	U
206-44-0	Fluoranthene	440	U
129-00-0	Pyrene	440 ~~890~~	U J
85-68-7	Butyl benzyl phthalate	440	U
91-94-1	3,3'-Dichlorobenzidine	440	U
56-55-3	Benzo[a]anthracene	440	U
218-01-9	Chrysene	440	U
117-81-7	bis(2-Ethylhexyl)phthalate	440	U
117-84-0	Di-n-octyl phthalate	440	U
205-99-2	Benzo[b]fluoranthene	440	U
207-08-9	Benzo[k]fluoranthene	440	U
50-32-8	Benzo[a]pyrene	440	U
193-39-5	Indeno[1,2,3-cd]pyrene	440	U
53-70-3	Dibenz[a,h]anthracene	440	U
191-24-2	Benzo[g,h,i]perylene	440	U
100-51-6	Benzyl alcohol	440	U
65-85-0	Benzoic acid	2200	U

J J3

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

T-17-2 RE

Lab Name: Upstate Laboratories, Inc Contract: Beardsley

Lab Code: 10170 Case No.: SAS No.: SDG No.: BEA01

Matrix: (soil/water) SOIL Lab Sample ID: 13801068,sa2848,b

Sample wt/vol: 30 (g/ml) G Lab File ID: ~~B12758.D~~ B12819

Level: (low/med) LOW Date Received: 5/18/01

% Moisture: 37 decanted:(Y/N) N Date Extracted: 5/24/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: ~~6/4/01~~ 6/14/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
111-44-4	bis(2-Chloroethyl)ether	530	U
108-95-2	Phenol	530	U
95-57-8	2-Chlorophenol	530	U
541-73-1	1,3-Dichlorobenzene	530	U
106-46-7	1,4-Dichlorobenzene	530	U
95-50-1	1,2-Dichlorobenzene	530	U
108-60-1	bis(2-Chloroisopropyl)ether	530	U
95-48-7	2-Methylphenol	530	U
67-72-1	Hexachloroethane	530	U
621-64-7	N-Nitroso-di-n-propylamine	530	U
106-44-5	4-Methylphenol	530	U
98-95-3	Nitrobenzene	530	U
78-59-1	Isophorone	530	U
88-75-5	2-Nitrophenol	530	U
105-67-9	2,4-Dimethylphenol	530	U
111-91-1	bis(2-Chloroethoxy)methane	530	U
120-83-2	2,4-Dichlorophenol	530	U
120-82-1	1,2,4-Trichlorobenzene	530	U
91-20-3	Naphthalene	530	U
106-47-8	4-Chloroaniline	530	U
87-68-3	Hexachlorobutadiene	530	U
59-50-7	4-Chloro-3-methylphenol	530	U
91-57-6	2-Methylnaphthalene	530	U
77-47-4	Hexachlorocyclopentadiene	530	U
88-06-2	2,4,6-Trichlorophenol	530	U
95-95-4	2,4,5-Trichlorophenol	1300	U
91-58-7	2-Chloronaphthalene	530	U
88-74-4	2-Nitroaniline	1300	U
208-96-8	Acenaphthylene	530	U
131-11-3	Dimethyl phthalate	530	U
606-20-2	2,6-Dinitrotoluene	530	U
83-32-9	Acenaphthene	530	U
99-09-2	3-Nitroaniline	1300	U
51-28-5	2,4-Dinitrophenol	1300	U
132-64-9	Dibenzofuran	530	U
121-14-2	2,4-Dinitrotoluene	530	U
100-02-7	4-Nitrophenol	1300	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T-17-2 RE

Lab Name: Upstate Laboratories, Inc Contract: Beardsley

Lab Code: 10170 Case No.: SAS No.: SDG No.: BEA01

Matrix: (soil/water) SOIL Lab Sample ID: 13801068,sa2848,b

Sample wt/vol: 30 (g/ml) G Lab File ID: ~~B12756.D~~ B12819

Level: (low/med) LOW Date Received: 5/18/01

% Moisture: 37 decanted:(Y/N) N Date Extracted: 5/24/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: ~~6/4/01~~ 6/14/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
86-73-7	Fluorene	530	U
7005-72-3	4-Chlorophenyl phenyl ether	530	U
84-66-2	Diethyl phthalate	530	U
100-01-6	4-Nitroaniline	1300	U
534-52-1	4,6-Dinitro-2-methylphenol	1300	U
86-30-6	n-Nitrosodiphenylamine	530	U
101-55-3	4-Bromophenyl phenyl ether	530	U
118-74-1	Hexachlorobenzene	530	U
87-86-5	Pentachlorophenol	~~1300~~	~~U~~ R
85-01-8	Phenanthrene	530	U
120-12-7	Anthracene	530	U
84-74-2	Di-n-butyl phthalate	530	U
86-74-8	Carbazole	530	U
206-44-0	Fluoranthene	530	U
129-00-0	Pyrene	530	U
85-68-7	Butyl benzyl phthalate	530	U
91-94-1	3,3'-Dichlorobenzidine	530	U
56-55-3	Benzo[a]anthracene	530	U
218-01-9	Chrysene	530	U
117-81-7	bis(2-Ethylhexyl)phthalate	530 ~~81~~	~~JB~~ U
117-84-0	Di-n-octyl phthalate	530	U
205-99-2	Benzo[b]fluoranthene	530	U
207-08-9	Benzo[k]fluoranthene	530	U
50-32-8	Benzo[a]pyrene	530	U
193-39-5	Indeno[1,2,3-cd]pyrene	530	U
53-70-3	Dibenz[a,h]anthracene	530	U
191-24-2	Benzo[g,h,i]perylene	530	U
100-51-6	Benzyl alcohol	530	U
65-85-0	Benzoic acid	2600	U

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

T-18-1

Lab Name: Upstate Laboratories, Inc Contract: Beardsley

Lab Code: 10170 Case No.: SAS No.: SDG No.: BEA01

Matrix: (soil/water) SOIL Lab Sample ID: 13801069,sa2848,b

Sample wt/vol: 30 (g/ml) G Lab File ID: B12759.D

Level: (low/med) LOW Date Received: 5/18/01

% Moisture: 25 decanted:(Y/N) N Date Extracted: 5/24/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/4/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
111-44-4	bis(2-Chloroethyl)ether	440	U
108-95-2	Phenol	440	U
95-57-8	2-Chlorophenol	440	U
541-73-1	1,3-Dichlorobenzene	440	U
106-46-7	1,4-Dichlorobenzene	440	U
95-50-1	1,2-Dichlorobenzene	440	U
108-60-1	bis(2-Chloroisopropyl)ether	440	U
95-48-7	2-Methylphenol	440	U
67-72-1	Hexachloroethane	440	U
621-64-7	N-Nitroso-di-n-propylamine	440	U
106-44-5	4-Methylphenol	440	U
98-95-3	Nitrobenzene	440	U
78-59-1	Isophorone	440	U
88-75-5	2-Nitrophenol	440	U
105-67-9	2,4-Dimethylphenol	440	U
111-91-1	bis(2-Chloroethoxy)methane	440	U
120-83-2	2,4-Dichlorophenol	440	U
120-82-1	1,2,4-Trichlorobenzene	440	U
91-20-3	Naphthalene	220	J
106-47-8	4-Chloroaniline	440	U
87-68-3	Hexachlorobutadiene	440	U
59-50-7	4-Chloro-3-methylphenol	440	U
91-57-6	2-Methylnaphthalene	830	J
77-47-4	Hexachlorocyclopentadiene	440	U
88-06-2	2,4,6-Trichlorophenol	440	U
95-95-4	2,4,5-Trichlorophenol	1100	U
91-58-7	2-Chloronaphthalene	440	U
88-74-4	2-Nitroaniline	1100	U
208-96-8	Acenaphthylene	440	U
131-11-3	Dimethyl phthalate	440	U
606-20-2	2,6-Dinitrotoluene	440	U
83-32-9	Acenaphthene	440 ~~72~~ J	UJ
99-09-2	3-Nitroaniline	1100	U
51-28-5	2,4-Dinitrophenol	1100	U
132-64-9	Dibenzofuran	440 ~~75~~ J	UJ
121-14-2	2,4-Dinitrotoluene	440	U
100-02-7	4-Nitrophenol	1100	U

793

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

T-18-1

Lab Name: Upstate Laboratories, Inc Contract: Beardsley

Lab Code: 10170 Case No.: SAS No.: SDG No.: BEA01

Matrix: (soil/water) SOIL Lab Sample ID: 13801069,sa2848,b

Sample wt/vol: 30 (g/ml) G Lab File ID: B12759.D

Level: (low/med) LOW Date Received: 5/18/01

% Moisture: 25 decanted:(Y/N) N Date Extracted: 5/24/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/4/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		Q
86-73-7	Fluorene	440 ~~220~~	J UJ
7005-72-3	4-Chlorophenyl phenyl ether	440	U
84-66-2	Diethyl phthalate	440	U
100-01-6	4-Nitroaniline	1100	U
534-52-1	4,6-Dinitro-2-methylphenol	1100	U
86-30-6	n-Nitrosodiphenylamine	440	U
101-55-3	4-Bromophenyl phenyl ether	440	U
118-74-1	Hexachlorobenzene	440	U
87-86-5	Pentachlorophenol	~~1100~~	R
85-01-8	Phenanthrene	1700	J
120-12-7	Anthracene	440 ~~280~~ J	UJ
84-74-2	Di-n-butyl phthalate	440	U
86-74-8	Carbazole	440	U
206-44-0	Fluoranthene	440	U
129-00-0	Pyrene	440 ~~240~~ J	UJ
85-68-7	Butyl benzyl phthalate	440	U
91-94-1	3,3'-Dichlorobenzidine	440	U
56-55-3	Benzo[a]anthracene	440	U
218-01-9	Chrysene	440	U
117-81-7	bis(2-Ethylhexyl)phthalate	440	U
117-84-0	Di-n-octyl phthalate	440	U
205-99-2	Benzo[b]fluoranthene	440	U
207-08-9	Benzo[k]fluoranthene	440	U
50-32-8	Benzo[a]pyrene	440	U
193-39-5	Indeno[1,2,3-cd]pyrene	440	U
53-70-3	Dibenz[a,h]anthracene	440	U
191-24-2	Benzo[g,h,i]perylene	440	U
100-51-6	Benzyl alcohol	440	U
65-85-0	Benzoic acid	2200	U

0000557

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

T-18-2 RE

Lab Name: Upstate Laboratories, Inc Contract: Beardsley

Lab Code: 10170 Case No.: SAS No.: SDG No.: BEA01

Matrix: (soil/water) SOIL Lab Sample ID: 13801070,sa2848,b

Sample wt/vol: 30 (g/ml) G Lab File ID: ~~B12760.D~~ B12820

Level: (low/med) LOW Date Received: 5/18/01

% Moisture: 23 decanted:(Y/N) N Date Extracted: 5/24/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: ~~6/4/01~~ 6/14/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

JJB

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		Q
111-44-4	bis(2-Chloroethyl)ether	430	U
108-95-2	Phenol	430	U
95-57-8	2-Chlorophenol	430	U
541-73-1	1,3-Dichlorobenzene	430	U
106-46-7	1,4-Dichlorobenzene	430	U
95-50-1	1,2-Dichlorobenzene	430	U
108-60-1	bis(2-Chloroisopropyl)ether	430	U
95-48-7	2-Methylphenol	430	U
67-72-1	Hexachloroethane	430	U
621-64-7	N-Nitroso-di-n-propylamine	430	U
106-44-5	4-Methylphenol	430	U
98-95-3	Nitrobenzene	430	U
78-59-1	Isophorone	430	U
88-75-5	2-Nitrophenol	430	U
105-67-9	2,4-Dimethylphenol	430	U
111-91-1	bis(2-Chloroethoxy)methane	430	U
120-83-2	2,4-Dichlorophenol	430	U
120-82-1	1,2,4-Trichlorobenzene	430	U
91-20-3	Naphthalene	430	U
106-47-8	4-Chloroanlline	430	U
87-68-3	Hexachlorobutadiene	430	U
59-50-7	4-Chloro-3-methylphenol	430	U
91-57-6	2-Methylnaphthalene	430	U
77-47-4	Hexachlorocyclopentadiene	430	U
88-06-2	2,4,6-Trichlorophenol	430	U
95-95-4	2,4,5-Trichlorophenol	1100	U
91-58-7	2-Chloronaphthalene	430	U
88-74-4	2-Nitroaniline	1100	U
208-96-8	Acenaphthylene	430	U
131-11-3	Dimethyl phthalate	430	U
606-20-2	2,6-Dinitrotoluene	430	U
83-32-9	Acenaphthene	430	U
99-09-2	3-Nitroaniline	1100	U
51-28-5	2,4-Dinitrophenol	1100	U
132-64-9	Dibenzofuran	430	U
121-14-2	2,4-Dinitrotoluene	430	U
100-02-7	4-Nitrophenol	1100	U

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

T-18-2 RE

Lab Name: Upstate Laboratories, Inc Contract: Beardsley

Lab Code: 10170 Case No.: SAS No.: SDG No.: BEA01

Matrix: (soil/water) SOIL Lab Sample ID: 13801070,sa2848,b

Sample wt/vol: 30 (g/ml) G Lab File ID: ~~B12760.D~~ B12820

Level: (low/med) LOW Date Received: 5/18/01

% Moisture: 23 decanted:(Y/N) N Date Extracted: 5/24/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: ~~6/4/01~~ 6/14/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		Q
86-73-7	Fluorene	430	U
7005-72-3	4-Chlorophenyl phenyl ether	430	U
84-66-2	Diethyl phthalate	430	U
100-01-6	4-Nitroaniline	1100	U
534-52-1	4,6-Dinitro-2-methylphenol	1100	U
86-30-6	n-Nitrosodiphenylamine	430	U
101-55-3	4-Bromophenyl phenyl ether	430	U
118-74-1	Hexachlorobenzene	430	U
87-86-5	Pentachlorophenol	~~4100~~	~~U~~ R
85-01-8	Phenanthrene	430	U
120-12-7	Anthracene	430	U
84-74-2	Di-n-butyl phthalate	430	U
86-74-8	Carbazole	430	U
206-44-0	Fluoranthene	430	U
129-00-0	Pyrene	430	U
85-68-7	Butyl benzyl phthalate	~~430~~ ~~260~~	~~U~~ U ✓
91-94-1	3,3'-Dichlorobenzidine	430	U
56-55-3	Benzo[a]anthracene	430	U
218-01-9	Chrysene	430	U
117-81-7	bis(2-Ethylhexyl)phthalate	1300	~~U~~ U ✓
117-84-0	Di-n-octyl phthalate	~~430~~ ~~450~~	~~U~~ U
205-99-2	Benzo[b]fluoranthene	430	U
207-08-9	Benzo[k]fluoranthene	430	U
50-32-8	Benzo[a]pyrene	430	U
193-39-5	Indeno[1,2,3-cd]pyrene	430	U
53-70-3	Dibenz[a,h]anthracene	430	U
191-24-2	Benzo[g,h,i]perylene	430	U
100-51-6	Benzyl alcohol	430	U
65-85-0	Benzoic acid	2200	U

000617

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

T-19-1

Lab Name: Upstate Laboratories, Inc Contract: Beardsley

Lab Code: 10170 Case No.: SAS No.: SDG No.: BEA01

Matrix: (soil/water) SOIL Lab Sample ID: 13801071,sa2848,b

Sample wt/vol: 30 (g/ml) G Lab File ID: B12763.D

Level: (low/med) LOW Date Received: 5/18/01

% Moisture: 19 decanted:(Y/N) N Date Extracted: 5/24/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/5/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
111-44-4	bis(2-Chloroethyl)ether	410	U
108-95-2	Phenol	410	U
95-57-8	2-Chlorophenol	410	U
541-73-1	1,3-Dichlorobenzene	410	U
106-46-7	1,4-Dichlorobenzene	410	U
95-50-1	1,2-Dichlorobenzene	410	U
108-60-1	bis(2-Chloroisopropyl)ether	410	U
95-48-7	2-Methylphenol	410	U
67-72-1	Hexachloroethane	410	U
621-64-7	N-Nitroso-di-n-propylamine	410	U
106-44-5	4-Methylphenol	410	U
98-95-3	Nitrobenzene	410	U
78-59-1	Isophorone	410	U
88-75-5	2-Nitrophenol	410	U
105-67-9	2,4-Dimethylphenol	410	U
111-91-1	bis(2-Chloroethoxy)methane	410	U
120-83-2	2,4-Dichlorophenol	410	U
120-82-1	1,2,4-Trichlorobenzene	410	U
91-20-3	Naphthalene	410 ~~210~~ J	UJ
106-47-8	4-Chloroaniline	410	U
87-68-3	Hexachlorobutadiene	410	U
59-50-7	4-Chloro-3-methylphenol	410	U
91-57-6	2-Methylnaphthalene	680	J
77-47-4	Hexachlorocyclopentadiene	410	U
88-06-2	2,4,6-Trichlorophenol	410	U
95-95-4	2,4,5-Trichlorophenol	1000	U
91-58-7	2-Chloronaphthalene	410	U
88-74-4	2-Nitroaniline	1000	U
208-96-8	Acenaphthylene	410	U
131-11-3	Dimethyl phthalate	410	U
606-20-2	2,6-Dinitrotoluene	410	U
83-32-9	Acenaphthene	410	U
99-09-2	3-Nitroaniline	1000	U
51-28-5	2,4-Dinitrophenol	1000	U
132-64-9	Dibenzofuran	410	U
121-14-2	2,4-Dinitrotoluene	410	U
100-02-7	4-Nitrophenol	1000	U

UJ

UJ

UJ

JJ

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

T-19-1

Lab Name: Upstate Laboratories, Inc Contract: Beardsley

Lab Code: 10170 Case No.: SAS No.: SDG No.: BEA01

Matrix: (soil/water) SOIL Lab Sample ID: 13801071,sa2848,b

Sample wt/vol: 30 (g/ml) G Lab File ID: B12763.D

Level: (low/med) LOW Date Received: 5/18/01

% Moisture: 19 decanted:(Y/N) N Date Extracted: 5/24/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/5/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		Q
86-73-7	Fluorene	410 ~~290~~	J U J
7005-72-3	4-Chlorophenyl phenyl ether	410	U
84-66-2	Diethyl phthalate	410	U
100-01-6	4-Nitroaniline	1000	U
534-52-1	4,6-Dinitro-2-methylphenol	1000	U UJ
86-30-6	n-Nitrosodiphenylamine	410	U
101-55-3	4-Bromophenyl phenyl ether	410	U
118-74-1	Hexachlorobenzene	410	U
87-86-5	Pentachlorophenol	~~1000~~	U R
85-01-8	Phenanthrene	2500	J
120-12-7	Anthracene	470	J
84-74-2	Di-n-butyl phthalate	410	U
86-74-8	Carbazole	410	U UJ
206-44-0	Fluoranthene	410	U
129-00-0	Pyrene	410 ~~3400~~	E U J
85-68-7	Butyl benzyl phthalate	410	U
91-94-1	3,3'-Dichlorobenzidine	410	U
56-55-3	Benzo[a]anthracene	410	U
218-01-9	Chrysene	410	U
117-81-7	bis(2-Ethylhexyl)phthalate	410	U
117-84-0	Di-n-octyl phthalate	410	U
205-99-2	Benzo[b]fluoranthene	410	U
207-08-9	Benzo[k]fluoranthene	410	U UJ
50-32-8	Benzo[a]pyrene	410	U
193-39-5	Indeno[1,2,3-cd]pyrene	410	U
53-70-3	Dibenz[a,h]anthracene	410	U
191-24-2	Benzo[g,h,i]perylene	410	U
100-51-6	Benzyl alcohol	410	U
65-85-0	Benzoic acid	2100	U

BB

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

T-19-2 RE

Lab Name: Upstate Laboratories, Inc Contract: Beardsley

Lab Code: 10170 Case No.: SAS No.: SDG No.: BEA01

Matrix: (soil/water) SOIL Lab Sample ID: 13801072,sa2848,b

Sample wt/vol: 30 (g/ml) G Lab File ID: ~~B12764.D~~ B12821

Level: (low/med) LOW Date Received: 5/18/01

% Moisture: 22 decanted:(Y/N) N Date Extracted: 5/24/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: ~~6/5/01~~ 6/14/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

JJB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
111-44-4	bis(2-Chloroethyl)ether	430	U
108-95-2	Phenol	430	U
95-57-8	2-Chlorophenol	430	U
541-73-1	1,3-Dichlorobenzene	430	U
106-46-7	1,4-Dichlorobenzene	430	U
95-50-1	1,2-Dichlorobenzene	430	U
108-60-1	bis(2-Chloroisopropyl)ether	430	U
95-48-7	2-Methylphenol	430	U
67-72-1	Hexachloroethane	430	U
621-64-7	N-Nitroso-di-n-propylamine	430	U
106-44-5	4-Methylphenol	430	U
98-95-3	Nitrobenzene	430	U
78-59-1	Isophorone	430	U
88-75-5	2-Nitrophenol	430	U
105-67-9	2,4-Dimethylphenol	430	U
111-91-1	bis(2-Chloroethoxy)methane	430	U
120-83-2	2,4-Dichlorophenol	430	U
120-82-1	1,2,4-Trichlorobenzene	430	U
91-20-3	Naphthalene	430	U
106-47-8	4-Chloroaniline	430	U
87-68-3	Hexachlorobutadiene	430	U
59-50-7	4-Chloro-3-methylphenol	430	U
91-57-6	2-Methylnaphthalene	430	U
77-47-4	Hexachlorocyclopentadiene	430	U
88-06-2	2,4,6-Trichlorophenol	430	U
95-95-4	2,4,5-Trichlorophenol	1100	U
91-58-7	2-Chloronaphthalene	430	U
88-74-4	2-Nitroaniline	1100	U
208-96-8	Acenaphthylene	430	U
131-11-3	Dimethyl phthalate	430	U
606-20-2	2,6-Dinitrotoluene	430	U
83-32-9	Acenaphthene	430	U
99-09-2	3-Nitroaniline	1100	U
51-28-5	2,4-Dinitrophenol	1100	U
132-64-9	Dibenzofuran	430	U
121-14-2	2,4-Dinitrotoluene	430	U
100-02-7	4-Nitrophenol	1100	U

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

T-19-2 RE

Lab Name: Upstate Laboratories, Inc Contract: Beardsley

Lab Code: 10170 Case No.: SAS No.: SDG No.: BEA01

Matrix: (soil/water) SOIL Lab Sample ID: 13801072,sa2848,b

Sample wt/vol: 30 (g/ml) G Lab File ID: ~~B12764.D~~ B12821

Level: (low/med) LOW Date Received: 5/18/01

% Moisture: 22 decanted:(Y/N) N Date Extracted: 5/24/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: ~~6/5/01~~ 6/14/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
86-73-7	Fluorene	430	U
7005-72-3	4-Chlorophenyl phenyl ether	430	U
84-66-2	Diethyl phthalate	430	U
100-01-6	4-Nitroaniline	1100	U
534-52-1	4,6-Dinitro-2-methylphenol	1100	U
86-30-6	n-Nitrosodiphenylamine	430	U
101-55-3	4-Bromophenyl phenyl ether	430	U
118-74-1	Hexachlorobenzene	430	U
87-86-5	Pentachlorophenol	~~1100~~	~~U~~ R
85-01-8	Phenanthrene	430	U
120-12-7	Anthracene	430	U
84-74-2	Di-n-butyl phthalate	430	U
86-74-8	Carbazole	430	U
206-44-0	Fluoranthene	430	U
129-00-0	Pyrene	430	U
85-68-7	Butyl benzyl phthalate	430 ~~210~~	J U
91-94-1	3,3'-Dichlorobenzidine	430	U
56-55-3	Benzo[a]anthracene	430	U
218-01-9	Chrysene	430	U
117-81-7	bis(2-Ethylhexyl)phthalate	1200	BU
117-84-0	Di-n-octyl phthalate	430 ~~110~~	J U
205-99-2	Benzo[b]fluoranthene	430	U
207-08-9	Benzo[k]fluoranthene	430	U
50-32-8	Benzo[a]pyrene	430	U
193-39-5	Indeno[1,2,3-cd]pyrene	430	U
53-70-3	Dibenz[a,h]anthracene	430	U
191-24-2	Benzo[g,h,i]perylene	430	U
100-51-6	Benzyl alcohol	430	U
65-85-0	Benzoic acid	2100	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T-20-1

Lab Name: Upstate Laboratories, Inc Contract: Beardsley

Lab Code: 10170 Case No.: SAS No.: SDG No.: BEA01

Matrix: (soil/water) SOIL Lab Sample ID: 13801073,sa2848,b

Sample wt/vol: 30 (g/ml) G Lab File ID: B12765.D

Level: (low/med) LOW Date Received: 5/18/01

% Moisture: 29 decanted:(Y/N) N Date Extracted: 5/24/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/5/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
111-44-4	bis(2-Chloroethyl)ether	470	U
108-95-2	Phenol	470	U
95-57-8	2-Chlorophenol	470	U
541-73-1	1,3-Dichlorobenzene	470	U
106-46-7	1,4-Dichlorobenzene	470	U
95-50-1	1,2-Dichlorobenzene	470	U
108-60-1	bis(2-Chloroisopropyl)ether	470	U
95-48-7	2-Methylphenol	470	U
67-72-1	Hexachloroethane	470	U
621-64-7	N-Nitroso-di-n-propylamine	470	U
106-44-5	4-Methylphenol	470	U
98-95-3	Nitrobenzene	470	U
78-59-1	Isophorone	470	U
88-75-5	2-Nitrophenol	470	U
105-67-9	2,4-Dimethylphenol	470	U
111-91-1	bis(2-Chloroethoxy)methane	470	U
120-83-2	2,4-Dichlorophenol	470	U
120-82-1	1,2,4-Trichlorobenzene	470	U
91-20-3	Naphthalene	470	U
106-47-8	4-Chloroaniline	470	U
87-68-3	Hexachlorobutadiene	470	U
59-50-7	4-Chloro-3-methylphenol	470	U
91-57-6	2-Methylnaphthalene	470	U
77-47-4	Hexachlorocyclopentadiene	470	U
88-06-2	2,4,6-Trichlorophenol	470	U
95-95-4	2,4,5-Trichlorophenol	1200	U
91-58-7	2-Chloronaphthalene	470	U
88-74-4	2-Nitroaniline	1200	U
208-96-8	Acenaphthylene	470	U
131-11-3	Dimethyl phthalate	470	U
606-20-2	2,6-Dinitrotoluene	470	U
83-32-9	Acenaphthene	470	U
99-09-2	3-Nitroaniline	1200	U
51-28-5	2,4-Dinitrophenol	1200	U
132-64-9	Dibenzofuran	470	U
121-14-2	2,4-Dinitrotoluene	470	U
100-02-7	4-Nitrophenol	1200	U

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

T-20-1

Lab Name: Upstate Laboratories, Inc Contract: Beardsley

Lab Code: 10170 Case No.: SAS No.: SDG No.: BEA01

Matrix: (soil/water) SOIL Lab Sample ID: 13801073,sa2848,b

Sample wt/vol: 30 (g/ml) G Lab File ID: B12765.D

Level: (low/med) LOW Date Received: 5/18/01

% Moisture: 29 decanted:(Y/N) N Date Extracted: 5/24/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/5/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		Q
86-73-7	Fluorene	470 ~~74~~	J UJ
7005-72-3	4-Chlorophenyl phenyl ether	470	U
84-66-2	Diethyl phthalate	470	U
100-01-6	4-Nitroaniline	1200	U
534-52-1	4,6-Dinitro-2-methylphenol	1200	U UJ
86-30-6	n-Nitrosodiphenylamine	470	U
101-55-3	4-Bromophenyl phenyl ether	470	U
118-74-1	Hexachlorobenzene	470	U
87-86-5	Pentachlorophenol	~~1200~~	U R
85-01-8	Phenanthrene	560	J
120-12-7	Anthracene	470	U
84-74-2	Di-n-butyl phthalate	470	U
86-74-8	Carbazole	470	U UJ
206-44-0	Fluoranthene	470	U
129-00-0	Pyrene	520	J
85-68-7	Butyl benzyl phthalate	470	U
91-94-1	3,3'-Dichlorobenzidine	470	U
56-55-3	Benzo[a]anthracene	470	U UJ
218-01-9	Chrysene	470	U
117-81-7	bis(2-Ethylhexyl)phthalate	470 ~~1100~~	B UJ
117-84-0	Di-n-octyl phthalate	470	U
205-99-2	Benzo[b]fluoranthene	470	U
207-08-9	Benzo[k]fluoranthene	470	U
50-32-8	Benzo[a]pyrene	470	U UJ
193-39-5	Indeno[1,2,3-cd]pyrene	470	U
53-70-3	Dibenz[a,h]anthracene	470	U
191-24-2	Benzo[g,h,i]perylene	470	U
100-51-6	Benzyl alcohol	470	U
65-85-0	Benzoic acid	2300	U

TBS

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

T-20-2

Lab Name: Upstate Laboratories, Inc Contract: Beardsley

Lab Code: 10170 Case No.: SAS No.: SDG No.: BEA01

Matrix: (soil/water) SOIL Lab Sample ID: 13801074,sa2848,b

Sample wt/vol: 30 (g/ml) G Lab File ID: B12766.D

Level: (low/med) LOW Date Received: 5/18/01

% Moisture: 26 decanted:(Y/N) N Date Extracted: 5/24/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/5/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
111-44-4	bis(2-Chloroethyl)ether	450	U
108-95-2	Phenol	450	U
95-57-8	2-Chlorophenol	450	U
541-73-1	1,3-Dichlorobenzene	450	U
106-46-7	1,4-Dichlorobenzene	450	U
95-50-1	1,2-Dichlorobenzene	450	U
108-60-1	bis(2-Chloroisopropyl)ether	450	U
95-48-7	2-Methylphenol	450	U
67-72-1	Hexachloroethane	450	U
621-64-7	N-Nitroso-di-n-propylamine	450	U
106-44-5	4-Methylphenol	450	U
98-95-3	Nitrobenzene	450	U
78-59-1	Isophorone	450	U
88-75-5	2-Nitrophenol	450	U
105-67-9	2,4-Dimethylphenol	450	U
111-91-1	bis(2-Chloroethoxy)methane	450	U
120-83-2	2,4-Dichlorophenol	450	U
120-82-1	1,2,4-Trichlorobenzene	450	U
91-20-3	Naphthalene	450	U
106-47-8	4-Chloroaniline	450	U
87-68-3	Hexachlorobutadiene	450	U
59-50-7	4-Chloro-3-methylphenol	450	U
91-57-6	2-Methylnaphthalene	450	U
77-47-4	Hexachlorocyclopentadiene	450	U
88-06-2	2,4,6-Trichlorophenol	450	U
95-95-4	2,4,5-Trichlorophenol	1100	U
91-58-7	2-Chloronaphthalene	450	U
88-74-4	2-Nitroaniline	1100	U
208-96-8	Acenaphthylene	450	U
131-11-3	Dimethyl phthalate	450	U
606-20-2	2,6-Dinitrotoluene	450	U
83-32-9	Acenaphthene	450	U
99-09-2	3-Nitroaniline	1100	U
51-28-5	2,4-Dinitrophenol	1100	U
132-64-9	Dibenzofuran	450	U
121-14-2	2,4-Dinitrotoluene	450	U
100-02-7	4-Nitrophenol	1100	U

U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T-20-2

Lab Name: Upstate Laboratories, Inc Contract: Beardsley

Lab Code: 10170 Case No.: SAS No.: SDG No.: BEA01

Matrix: (soil/water) SOIL Lab Sample ID: 13801074,sa2848,b

Sample wt/vol: 30 (g/ml) G Lab File ID: B12766.D

Level: (low/med) LOW Date Received: 5/18/01

% Moisture: 26 decanted:(Y/N) N Date Extracted: 5/24/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/5/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		Q
86-73-7	Fluorene	450 ~~78~~	U J
7005-72-3	4-Chlorophenyl phenyl ether	450	U
84-66-2	Diethyl phthalate	450	U
100-01-6	4-Nitroaniline	1100	U
534-52-1	4,6-Dinitro-2-methylphenol	1100	U
86-30-6	n-Nitrosodiphenylamine	450	U
101-55-3	4-Bromophenyl phenyl ether	450	U
118-74-1	Hexachlorobenzene	450	U
87-86-5	Pentachlorophenol	~~1100~~	U R
85-01-8	Phenanthrene	450	U
120-12-7	Anthracene	450	U
84-74-2	Di-n-butyl phthalate	450	U
86-74-8	Carbazole	450	U
206-44-0	Fluoranthene	450	U
129-00-0	Pyrene	640	J
85-68-7	Butyl benzyl phthalate	450	U
91-94-1	3,3'-Dichlorobenzidine	450	U
56-55-3	Benzo[a]anthracene	450	U
218-01-9	Chrysene	1200	J
117-81-7	bis(2-Ethylhexyl)phthalate	450	U
117-84-0	Di-n-octyl phthalate	450	U
205-99-2	Benzo[b]fluoranthene	450	U
207-08-9	Benzo[k]fluoranthene	450	U
50-32-8	Benzo[a]pyrene	450	U
193-39-5	Indeno[1,2,3-cd]pyrene	450	U
53-70-3	Dibenz[a,h]anthracene	450	U
191-24-2	Benzo[g,h,i]perylene	450	U
100-51-6	Benzyl alcohol	450	U
65-85-0	Benzoic acid	2300	U

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

T-21-1 RE

Lab Name: Upstate Laboratories, Inc Contract: Beardsley

Lab Code: 10170 Case No.: SAS No.: SDG No.: BEA01

Matrix: (soil/water) SOIL Lab Sample ID: 13801075,sa2848,b

Sample wt/vol: 30 (g/ml) G Lab File ID: ~~B12767.D~~ B12822

Level: (low/med) LOW Date Received: 5/18/01

% Moisture: 21 decanted:(Y/N) N Date Extracted: 5/24/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: ~~6/5/01~~ 6/14/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

773

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		Q
111-44-4	bis(2-Chloroethyl)ether	420	U
108-95-2	Phenol	420	U
95-57-8	2-Chlorophenol	420	U
541-73-1	1,3-Dichlorobenzene	420	U
106-46-7	1,4-Dichlorobenzene	420	U
95-50-1	1,2-Dichlorobenzene	420	U
108-60-1	bis(2-Chloroisopropyl)ether	420	U
95-48-7	2-Methylphenol	420	U
67-72-1	Hexachloroethane	420	U
621-64-7	N-Nitroso-di-n-propylamine	420	U
106-44-5	4-Methylphenol	420	U
98-95-3	Nitrobenzene	420	U
78-59-1	Isophorone	420	U
88-75-5	2-Nitrophenol	420	U
105-67-9	2,4-Dimethylphenol	420	U
111-91-1	bis(2-Chloroethoxy)methane	420	U
120-83-2	2,4-Dichlorophenol	420	U
120-82-1	1,2,4-Trichlorobenzene	420	U
91-20-3	Naphthalene	420	U
106-47-8	4-Chloroaniline	420	U
87-68-3	Hexachlorobutadiene	420	U
59-50-7	4-Chloro-3-methylphenol	420	U
91-57-6	2-Methylnaphthalene	420	U
77-47-4	Hexachlorocyclopentadiene	420	U
88-06-2	2,4,6-Trichlorophenol	420	U
95-95-4	2,4,5-Trichlorophenol	1100	U
91-58-7	2-Chloronaphthalene	420	U
88-74-4	2-Nitroaniline	1100	U
208-96-8	Acenaphthylene	420	U
131-11-3	Dimethyl phthalate	420	U
606-20-2	2,6-Dinitrotoluene	420	U
83-32-9	Acenaphthene	420	U
99-09-2	3-Nitroaniline	1100	U
51-28-5	2,4-Dinitrophenol	1100	U
132-64-9	Dibenzofuran	420	U
121-14-2	2,4-Dinitrotoluene	420	U
100-02-7	4-Nitrophenol	1100	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T-21-1 RE

Lab Name: Upstate Laboratories, Inc Contract: Beardsley

Lab Code: 10170 Case No.: SAS No.: SDG No.: BEA01

Matrix: (soil/water) SOIL Lab Sample ID: 13801075,sa2848,b

Sample wt/vol: 30 (g/ml) G Lab File ID: ~~B42707.D~~ B12822

Level: (low/med) LOW Date Received: 5/18/01

% Moisture: 21 decanted:(Y/N) N Date Extracted: 5/24/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: ~~6/5/01~~ 6/14/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

JJJ

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
86-73-7	Fluorene	420	U
7005-72-3	4-Chlorophenyl phenyl ether	420	U
84-66-2	Diethyl phthalate	420	U
100-01-6	4-Nitroaniline	1100	U
534-52-1	4,6-Dinitro-2-methylphenol	1100	U
86-30-6	n-Nitrosodiphenylamine	420	U
101-55-3	4-Bromophenyl phenyl ether	420	U
118-74-1	Hexachlorobenzene	420	U
87-86-5	Pentachlorophenol	~~1100~~	~~U~~ R
85-01-8	Phenanthrene	420	U
120-12-7	Anthracene	420	U
84-74-2	Di-n-butyl phthalate	420	U
86-74-8	Carbazole	420	U
206-44-0	Fluoranthene	420	U
129-00-0	Pyrene	420	U
85-68-7	Butyl benzyl phthalate	420	U
91-94-1	3,3'-Dichlorobenzidine	420	U
56-55-3	Benzo[a]anthracene	420	U
218-01-9	Chrysene	420	U
117-81-7	bis(2-Ethylhexyl)phthalate	~~140~~ 420 ~~140~~	U ~~JB~~ R (no spectra)
117-84-0	Di-n-octyl phthalate	420	U
205-99-2	Benzo[b]fluoranthene	420	U
207-08-9	Benzo[k]fluoranthene	420	U
50-32-8	Benzo[a]pyrene	420	U
193-39-5	Indeno[1,2,3-cd]pyrene	420	U
53-70-3	Dibenz[a,h]anthracene	420	U
191-24-2	Benzo[g,h,i]perylene	420	U
100-51-6	Benzyl alcohol	420	U
65-85-0	Benzoic acid	2100	U

Spectra present in T-21-1 ~~RE~~

JJJ

0000879

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T-21-2 RE

Lab Name: Upstate Laboratories, Inc Contract: Beardsley

Lab Code: 10170 Case No.: SAS No.: SDG No.: BEA01

Matrix: (soil/water) SOIL Lab Sample ID: 13801076,sa2848,b

Sample wt/vol: 30 (g/ml) G Lab File ID: ~~B12768.D~~ B12823

Level: (low/med) LOW Date Received: 5/18/01

% Moisture: 21 decanted:(Y/N) N Date Extracted: 5/24/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: ~~6/5/01~~ 6/14/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

377

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
111-44-4	bis(2-Chloroethyl)ether	420	U
108-95-2	Phenol	420	U
95-57-8	2-Chlorophenol	420	U
541-73-1	1,3-Dichlorobenzene	420	U
106-46-7	1,4-Dichlorobenzene	420	U
95-50-1	1,2-Dichlorobenzene	420	U
108-60-1	bis(2-Chloroisopropyl)ether	420	U
95-48-7	2-Methylphenol	420	U
67-72-1	Hexachloroethane	420	U
621-64-7	N-Nitroso-di-n-propylamine	420	U
106-44-5	4-Methylphenol	420	U
98-95-3	Nitrobenzene	420	U
78-59-1	Isophorone	420	U
88-75-5	2-Nitrophenol	420	U
105-67-9	2,4-Dimethylphenol	420	U
111-91-1	bis(2-Chloroethoxy)methane	420	U
120-83-2	2,4-Dichlorophenol	420	U
120-82-1	1,2,4-Trichlorobenzene	420	U
91-20-3	Naphthalene	420	U
106-47-8	4-Chloroaniline	420	U
87-68-3	Hexachlorobutadiene	420	U
59-50-7	4-Chloro-3-methylphenol	420	U
91-57-6	2-Methylnaphthalene	420	U
77-47-4	Hexachlorocyclopentadiene	420	U
88-06-2	2,4,6-Trichlorophenol	420	U
95-95-4	2,4,5-Trichlorophenol	1100	U
91-58-7	2-Chloronaphthalene	420	U
88-74-4	2-Nitroaniline	1100	U
208-96-8	Acenaphthylene	420	U
131-11-3	Dimethyl phthalate	420	U
606-20-2	2,6-Dinitrotoluene	420	U
83-32-9	Acenaphthene	420	U
99-09-2	3-Nitroaniline	1100	U
51-28-5	2,4-Dinitrophenol	1100	U
132-64-9	Dibenzofuran	420	U
121-14-2	2,4-Dinitrotoluene	420	U
100-02-7	4-Nitrophenol	1100	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T-21-2 RE

Lab Name: Upstate Laboratories, Inc Contract: Beardsley

Lab Code: 10170 Case No.: SAS No.: SDG No.: BEA01

Matrix: (soil/water) SOIL Lab Sample ID: 13801076,sa2848,b

Sample wt/vol: 30 (g/ml) G Lab File ID: ~~B12768.D~~ B12823

Level: (low/med) LOW Date Received: 5/18/01

% Moisture: 21 decanted:(Y/N) N Date Extracted: 5/24/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: ~~6/5/01~~ 6/14/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

777

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	UG/KG	Q
86-73-7	Fluorene	420	U
7005-72-3	4-Chlorophenyl phenyl ether	420	U
84-66-2	Diethyl phthalate	420	U
100-01-6	4-Nitroaniline	1100	U
534-52-1	4,6-Dinitro-2-methylphenol	1100	U
86-30-6	n-Nitrosodiphenylamine	420	U
101-55-3	4-Bromophenyl phenyl ether	420	U
118-74-1	Hexachlorobenzene	420	U
87-86-5	Pentachlorophenol	~~1100~~	~~U~~ R
85-01-8	Phenanthrene	420	U
120-12-7	Anthracene	420	U
84-74-2	Di-n-butyl phthalate	420	U
86-74-8	Carbazole	420	U
206-44-0	Fluoranthene	420	U
129-00-0	Pyrene	420	U
85-68-7	Butyl benzyl phthalate	420	U
91-94-1	3,3'-Dichlorobenzidine	420	U
56-55-3	Benzo[a]anthracene	420	U
218-01-9	Chrysene	420	U
117-81-7	bis(2-Ethylhexyl)phthalate	~~420~~ 130	U ~~JB~~
117-84-0	Di-n-octyl phthalate	420	U
205-99-2	Benzo[b]fluoranthene	420	U
207-08-9	Benzo[k]fluoranthene	420	U
50-32-8	Benzo[a]pyrene	420	U
193-39-5	Indeno[1,2,3-cd]pyrene	420	U
53-70-3	Dibenz[a,h]anthracene	420	U
191-24-2	Benzo[g,h,i]perylene	420	U
100-51-6	Benzyl alcohol	420	U
65-85-0	Benzoic acid	2100	U

✓ spectra in T-21-2 ~~RE~~ 353

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

T-22-1 RE

Lab Name: Upstate Laboratories, Inc Contract: Beardsley

Lab Code: 10170 Case No.: SAS No.: SDG No.: BEA01

Matrix: (soil/water) SOIL Lab Sample ID: 13801077,sa2848,b

Sample wt/vol: 30 (g/ml) G Lab File ID: ~~B12769.D~~ B12824

Level: (low/med) LOW Date Received: 5/18/01

% Moisture: 23 decanted:(Y/N) N Date Extracted: 5/24/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: ~~6/5/01~~ 6/14/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		Q
111-44-4	bis(2-Chloroethyl)ether	430	U
108-95-2	Phenol	430	U
95-57-8	2-Chlorophenol	430	U
541-73-1	1,3-Dichlorobenzene	430	U
106-46-7	1,4-Dichlorobenzene	430	U
95-50-1	1,2-Dichlorobenzene	430	U
108-60-1	bis(2-Chloroisopropyl)ether	430	U
95-48-7	2-Methylphenol	430	U
67-72-1	Hexachloroethane	430	U
621-64-7	N-Nitroso-di-n-propylamine	430	U
106-44-5	4-Methylphenol	430	U
98-95-3	Nitrobenzene	430	U
78-59-1	Isophorone	430	U
88-75-5	2-Nitrophenol	430	U
105-67-9	2,4-Dimethylphenol	430	U
111-91-1	bis(2-Chloroethoxy)methane	430	U
120-83-2	2,4-Dichlorophenol	430	U
120-82-1	1,2,4-Trichlorobenzene	430	U
91-20-3	Naphthalene	430	U
106-47-8	4-Chloroaniline	430	U
87-68-3	Hexachlorobutadiene	430	U
59-50-7	4-Chloro-3-methylphenol	430	U
91-57-6	2-Methylnaphthalene	430	U
77-47-4	Hexachlorocyclopentadiene	430	U
88-06-2	2,4,6-Trichlorophenol	430	U
95-95-4	2,4,5-Trichlorophenol	1100	U
91-58-7	2-Chloronaphthalene	430	U
88-74-4	2-Nitroaniline	1100	U
208-96-8	Acenaphthylene	430	U
131-11-3	Dimethyl phthalate	430	U
606-20-2	2,6-Dinitrotoluene	430	U
83-32-9	Acenaphthene	430	U
99-09-2	3-Nitroaniline	1100	U
51-28-5	2,4-Dinitrophenol	1100	U
132-64-9	Dibenzofuran	430	U
121-14-2	2,4-Dinitrotoluene	430	U
100-02-7	4-Nitrophenol	1100	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

T-22-1 RE

Lab Name: Upstate Laboratories, Inc Contract: Beardsley

Lab Code: 10170 Case No.: SAS No.: SDG No.: BEA01

Matrix: (soil/water) SOIL Lab Sample ID: 13801077,sa2848,b

Sample wt/vol: 30 (g/ml) G Lab File ID: ~~B12769.D~~ B12824

Level: (low/med) LOW Date Received: 5/18/01

% Moisture: 23 decanted:(Y/N) N Date Extracted: 5/24/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: ~~6/5/01~~ 6/14/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

MR

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
86-73-7	Fluorene	430	U
7005-72-3	4-Chlorophenyl phenyl ether	430	U
84-66-2	Diethyl phthalate	430	U
100-01-6	4-Nitroaniline	1100	U
534-52-1	4,6-Dinitro-2-methylphenol	1100	U
86-30-6	n-Nitrosodiphenylamine	430	U
101-55-3	4-Bromophenyl phenyl ether	430	U
118-74-1	Hexachlorobenzene	430	U
87-86-5	Pentachlorophenol	~~1100~~	~~U~~ R
85-01-8	Phenanthrene	430	U
120-12-7	Anthracene	430	U
84-74-2	Di-n-butyl phthalate	430	U
86-74-8	Carbazole	430	U
206-44-0	Fluoranthene	430	U
129-00-0	Pyrene	430	U
85-68-7	Butyl benzyl phthalate	430	U
91-94-1	3,3'-Dichlorobenzidine	430	U
56-55-3	Benzo[a]anthracene	430	U
218-01-9	Chrysene	430	U
117-81-7	bis(2-Ethylhexyl)phthalate	460	~~B~~ U ✓ spectra in T-22-1 ~~RE~~
117-84-0	Di-n-octyl phthalate	430	U
205-99-2	Benzo[b]fluoranthene	430	U
207-08-9	Benzo[k]fluoranthene	430	U
50-32-8	Benzo[a]pyrene	430	U
193-39-5	Indeno[1,2,3-cd]pyrene	430	U
53-70-3	Dibenz[a,h]anthracene	430	U
191-24-2	Benzo[g,h,i]perylene	430	U
100-51-6	Benzyl alcohol	430	U
65-85-0	Benzoic acid	2200	U

DATA USABILITY SUMMARY REPORT

for

BEARDSLEY DESIGN ASSOCIATES

431 EAST FAYETTE STREET

EAST SYRACUSE, NY 13202

FORMER BROWN MANUFACTURING SITE
SDG BEA01
Sampled 05/15/01, 05/16/01, 05/17/01

SOIL SAMPLES for PCB

T16-1	(13801065)	T16-2	(13801066)	T17-1	(13801067)
T17-2	(13801068)	T18-1	(13801069)	T18-2	(13801070)
T19-1	(13801071)	T19-2	(13801072)	T20-1	(13801073)
T20-2	(13801074)	T21-1	(13801075)	T21-2	(13801076)
T22-1	(13801077)				

DATA ASSESSMENT

A PCB data package containing analytical results for thirteen soil samples, was received from Beardsley Design Associates on 16Nov01. The ASP deliverables package included formal reports, raw data, the necessary QC, and supporting information. The samples, taken from the Former Brown Manufacturing site, were identified by Chain of Custody documents and trackable through the work of Upstate Laboratories, Inc., the laboratory contracted for analysis. Analyses, performed according to SW-846 Method 8082, addressed determinations of PCB. Laboratory data was evaluated according to the Quality Assurance / Quality Control Requirements of the New York State Department of Environmental Conservation's Analytical Services Protocol (ASP), September 1989, Rev. 6/2000. When ASP protocol was not followed, the current EPA Region II Functional Guidelines (SPO NO. HW-6, Rev. #8, Jan. 1992, CLP Organics Data Review and Preliminary Review), was used as a technical reference.

The results reported from T19-1 have been qualified as estimations due to low surrogate standard recoveries.

The low recoveries reported for matrix spikes to T18-1 require the qualification of all data reported from this group of samples. The observed performance appears to be caused by an interfering sample matrix.

CORRECTNESS AND USABILITY

It is noted that although analyses were requested by SW-846 Method 8082, this group of samples were actually analyzed by Method 8080. This substitution is felt to have no impact on reported data. The negative PCB results reported from each sample appear to be well supported.

Reported data should be considered technically defensible in its present form. Reported concentrations that are felt to provide a usable estimation of the conditions being measured have been flagged "J" or "UJ". Estimated data should be used with caution. A detailed discussion of the review process follows.

Two facts should be considered by all data users. No compound concentration, even if it has passed all QC testing, can be guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error. Secondly. DATAVAL, Inc. guarantees the quality of this data assessment. However, DATAVAL, Inc. does not warrant any interpretation or utilization of this data by a third party.

Reviewer's signature: James B. Baldwin Date: 1/24/02

SAMPLE HISTORY

Analyte concentrations can deteriorate with time due to chemical instability, bacterial degradation or volatility. Samples that are not properly preserved, or are not analyzed within established holding times, may no longer be considered representative. Holding times are calculated from the time of sample collection. Samples must remain chilled to 4°C from the time of collection. Aqueous samples must be extracted within 7 days. The extraction of soil samples must begin within 14 days of collection. Analyses must be completed within 40 days of extraction. Each sample delivery group, containing up to 20 samples, should include a field duplicate, a matrix spike, matrix spike duplicate, and a rinsate blank.

This sample delivery group, which included thirteen soil samples, was collected from the Former Brown Manufacturing site between 15May01 and 17May01. Three samples collected on 15MAy01, five collected on 16May01, and five collected on 17May01 were delivered to the laboratory, after hours, on the day of collection. Each cooler of samples arrived intact. The sample receipt log indicated that the sample coolers contained ice. It is noted that only one cooler temperature, 5.9°C, was documented in the sample receipt log.

Sample extractions were performed on 25May01. Analyses were completed by 13Jun01. Program holding time limitations were satisfied.

BLANKS

Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Method blanks are analyzed to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

One method blank was analyzed with this group of samples. This blank was free of PCB contamination.

CALIBRATION

Requirements for instrument calibration are established to ensure that laboratory equipment is capable of producing accurate, quantitative data. Initial calibrations demonstrate a range through which measurements may be made. Continuing calibration standards verify instrument stability.

The requested method, SW-846 8082, requires a 3-5 point calibration for Aroclors 1016 and 1260. This calibration was not performed. The initial calibration included five levels of calibration for the single component pesticides of Method 8080. These standards demonstrated an acceptable degree of detector linearity. The initial calibration also included a 100 µg/l standard of each individual Aroclor. The standards were analyzed on two different chromatography columns. Although grossly over attenuated, these standards demonstrated that Aroclor concentrations equaling CRDL

would be detected if present in samples. Because Aroclors were not detected in program samples, data has been left unqualified.

A continuing calibration verification was completed prior to and following the analysis of this group of samples. These checks produced acceptable recoveries of AR1016 and AR1260.

SURROGATES

Each sample, blank and standard is spiked with surrogate compounds prior to analysis. The structures of surrogates are similar to analytes of interest, but they are not normally found in environmental samples. Surrogate recoveries are monitored to evaluate overall laboratory performance and the efficiency of laboratory technique.

Two surrogates, TCX and DCB were added to each sample. In most cases, these additions were recovered successfully. Low recoveries were reported for the TCX additions to T16-1, T16-2, T18-2 and T19-1. Poor performance was also produced by the DCB addition to T19-1. Only T19-1 produced a low recovery of both surrogates. Based on this performance, the negative PCB results reported from T19-1 have been qualified as estimations.

MATRIX SPIKES / MATRIX SPIKE DUPLICATES / MATRIX SPIKED BLANKS

Matrix spiking refers to the addition of known analyte concentrations to a sample, prior to analysis. Analyte recoveries provide an indication of laboratory accuracy. The analysis of a duplicate spiked aliquot provides a measurement of precision.

Sample T18-1 was selected for matrix spiking. Aroclor 1248 was added to two portions of this sample. Both additions produced recoveries of 61%. A spiked blank was also digested and analyzed with this group of samples. The spiked blank produced an AR1248 recovery of 94%. These results indicate that the results reported from this group of samples might be affected by a significant negative bias. The negative PCB results reported from each program sample have been qualified as estimations.

SUMMARY OF QUALIFIED DATA

FORMER BROWN MANUFACTURING SITE

SAMPLED 11/15/99 thru 11/18/99

		SURROGATES	MS/MSD
T16-1	(13801065)		ALL J/UJ
T16-2	(13801066)		ALL J/UJ
T17-1	(13801067)		ALL J/UJ
T17-2	(13801068)		ALL J/UJ
T18-1	(13801069)		ALL J/UJ
T18-2	(13801070)		ALL J/UJ
T19-1	(13801071)	ALL UJ	ALL J/UJ
T19-2	(13801072)		ALL J/UJ
T20-1	(13801073)		ALL J/UJ
T20-2	(13801074)		ALL J/UJ
T21-1	(13801075)		ALL J/UJ
T21-2	(13801076)		ALL J/UJ
T22-1	(13801077)		ALL J/UJ

1A
PCB ANALYSIS DATA SHEET

NYSDEC SAMPLE NO. T-16-1

Lab Name: Upstate Labs Inc. Contract: BOARDS/CY

Lab Code: 10170 Case No.: SAS No.: SDG No.: BOSA-01

Matrix: SOIL Lab Sample ID: 138-65

Sample wt.: 30 (G) Lab File ID: G40743

% Moisture: 12 Decanted: NO Date Received: 5/18/01

Extraction: SONIC Date Extracted: 5/25/01

Conc Extract Vol.: 10000 (uL) Date Analyzed: 6/1/01

Injection Vol.: 1 (uL) Time Analyzed: 749PM

GPC Cleanup: No pH: Dilution Factor: 1

Instr. ID: ULI 65 Sulfur Cleanup: Yes

Pa Batch: PA6898

CAS NO.	COMPOUND	CONCENTRATION UNITS ug/KG	Q
12674-11-2	Aroclor 1016	38	U
11104-28-2	Aroclor 1221	38	U
11141-16-5	Aroclor 1232	38	U
53469-21-9	Aroclor 1242	38	U
12672-29-6	Aroclor 1248	38	U
11097-69-1	Aroclor 1254	38	U
11096-82-5	Aroclor 1260	38	U

JB

1A

PCB ANALYSIS DATA SHEET

NYSDEC SAMPLE NO. T-16-2

Lab Name: Upstate Labs Inc. Contract: BOARDSLEY

Lab Code: 10170 Case No.: SAS No.: SDG No.: BOA-01

Matrix: SOIL Lab Sample ID: 838-64

Sample wt.: 30 (G) Lab File ID: G10743

% Moisture: 30 Decanted: NO Date Received: 5/18/01

Extraction: SHAKER Date Extracted: 5/25/01

Conc Extract Vol.: 10000 (uL) Date Analyzed: 6/12/01

Injection Vol.: 1 (uL) Time Analyzed: 8:25 PM

GPC Cleanup: No pH: Dilution Factor: 1

Instr. ID: ULI 6S Sulfur Cleanup: Yes

Pa Batch: PA6898

CAS NO.	COMPOUND	CONCENTRATION UNITS ug/Kg	Q
12674-11-2	Aroclor 1016	43	U
11104-28-2	Aroclor 1221	43	U
11141-16-5	Aroclor 1232	43	U
53469-21-9	Aroclor 1242	43	U
12672-29-6	Aroclor 1248	43	U
11097-69-1	Aroclor 1254	43	U
11096-82-5	Aroclor 1260	43	U

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PCB ANALYSIS DATA SHEET

NYSDEC SAMPLE NO. T-17-01

Lab Name: Upstate Labs Inc. Contract: Bearsley

Lab Code: 10170 Case No.: SAS No.: SDG No.: BSA-01

Matrix: Soil Lab Sample ID: 138-47

Sample wt.: 30 (G) Lab File ID: GA0743

% Moisture: 24 Decanted: NO Date Received: 5/18/01

Extraction: SHAKER Date Extracted: 5/25/01

Conc Extract Vol.: 10000 (uL) Date Analyzed: 6/12/01

Injection Vol.: 1 (uL) Time Analyzed: 9 00 PM

GPC Cleanup: No pH: Dilution Factor: 1

Instr. ID: ULI GC Sulfur Cleanup: Yes

Pa Batch: PA6893

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

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PCB ANALYSIS DATA SHEET

NYSDEC SAMPLE NO. T-17-2

Lab Name: Upstate Labs Inc. Contract: Bangsley

Lab Code: 10170 Case No.: SAS No.: SDG No. BGA-01

Matrix: SOIL Lab Sample ID: 138-68

Sample wt.: 30 (G) Lab File ID: GA07413

% Moisture: 37 Decanted: NO Date Received: 5/18/01

Extraction: SHAKER Date Extracted: 5/25/01

Conc Extract Vol.: 10000 (uL) Date Analyzed: 6/12/01

Injection Vol.: 1 (uL) Time Analyzed: 936 PM

GPC Cleanup: No pH: Dilution Factor: 1

Instr. ID: ULI 65 Sulfur Cleanup: Yes

Pa Batch: PA6898

CAS NO.	COMPOUND	CONCENTRATION UNITS UG/KG	Q
12674-11-2	Aroclor 1016	50	U
11104-28-2	Aroclor 1221	50	U
11141-16-5	Aroclor 1232	50	U
53469-21-9	Aroclor 1242	50	U
12672-29-6	Aroclor 1248	50	U
11097-69-1	Aroclor 1254	50	U
11096-82-5	Aroclor 1260	50	U

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PCB ANALYSIS DATA SHEET

NYSDEC SAMPLE NO. T-18-1

Lab Name: Upstate Labs Inc. Contract: BCA-05/94

Lab Code: 10170 Case No.: SAS No.: SDG No.: BCA-01

Matrix: SOIL Lab Sample ID: 138-09

Sample wt.: 30 (6) Lab File ID: BA0743

% Moisture: 25 Decanted: NO Date Received: 5/18/01

Extraction: SONIC Date Extracted: 5/25/01

Conc Extract Vol.: 10000 (uL) Date Analyzed: 6/12/01

Injection Vol.: 1 (uL) Time Analyzed: 10:11 PM

GPC Cleanup: No pH: Dilution Factor: 1

Instr. ID: ULI 05 Sulfur Cleanup: Yes

Pa Batch: PA6898

CAS NO.	COMPOUND	CONCENTRATION UNITS ug/kg	Q
12674-11-2	Aroclor 1016	44	U
11104-28-2	Aroclor 1221	44	U
11141-16-5	Aroclor 1232	44	U
53469-21-9	Aroclor 1242	44	U
12672-29-6	Aroclor 1248	44	U
11097-69-1	Aroclor 1254	44	U
11096-82-5	Aroclor 1260	44	U

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7/5

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PCB ANALYSIS DATA SHEET

NYSDEC SAMPLE NO. T-18-2

Lab Name: Upstate Labs Inc. Contract: BOARDS14

Lab Code: 10170 Case No.: SAS No.: SDG No.: 1B018-01

Matrix: SOIL Lab Sample ID: 138-70

Sample wt.: 30 (G) Lab File ID: G40743

% Moisture: 23 Decanted: NO Date Received: 5/18/01

Extraction: SHAKER Date Extracted: 5/23/01

Conc Extract Vol.: 1000 (uL) Date Analyzed: 6/12/01

Injection Vol.: 1 (uL) Time Analyzed: 11:58 PM

GPC Cleanup: No pH: Dilution Factor: 1

Instr. ID: ULI 65 Sulfur Cleanup: Yes

Pa Batch: PA6898

CAS NO.	COMPOUND	CONCENTRATION UNITS ug/kg	Q
12674-11-2	Aroclor 1016	43	U
11104-28-2	Aroclor 1221	43	U
11141-16-5	Aroclor 1232	43	U
53469-21-9	Aroclor 1242	43	U
12672-29-6	Aroclor 1248	43	U
11097-69-1	Aroclor 1254	43	U
11096-82-5	Aroclor 1260	43	U

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PCB ANALYSIS DATA SHEET

NYSDEC SAMPLE NO. T-19-1

Lab Name: Upstate Labs Inc. Contract: BCA005/01

Lab Code: 10170 Case No.: SAS No.: SDG No.: B6A-01

Matrix: SOIL Lab Sample ID: 138-71

Sample wt.: 30 (G) Lab File ID: BA0743

% Moisture: 19 Decanted: NO Date Received: 5/18/01

Extraction: SHAKER Date Extracted: 5/25/01

Conc Extract Vol.: 10000 (uL) Date Analyzed: 6/13/01

Injection Vol.: 1 (uL) Time Analyzed: 1233 AM

GPC Cleanup: No pH: Dilution Factor: 1

Instr. ID: ULI GC Sulfur Cleanup: Yes

Pa Batch: PA6898

CAS NO.	COMPOUND	CONCENTRATION UNITS ug/kg	Q	
12674-11-2	Aroclor 1016	41	U	U
11104-28-2	Aroclor 1221	41	U	
11141-16-5	Aroclor 1232	41	U	
53469-21-9	Aroclor 1242	41	U	
12672-29-6	Aroclor 1248	41	U	
11097-69-1	Aroclor 1254	41	U	
11096-82-5	Aroclor 1260	41	U	

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PCB ANALYSIS DATA SHEET

NYSDEC SAMPLE NO. T-19-2

Lab Name: Upstate Labs Inc. Contract: BOARDSLEY

Lab Code: 10170 Case No.: SAS No.: SDG No.: BOA-01

Matrix: SOIL Lab Sample ID: 138-72

Sample wt.: 30 (G) Lab File ID: B107143

% Moisture: 22 Decanted: NO Date Received: 5/18/01

Extraction: SHAKER Date Extracted: 5/25/01

Conc Extract Vol.: 10000 (uL) Date Analyzed: 6/13/01

Injection Vol.: 1 (uL) Time Analyzed: 108 AM

GPC Cleanup: No pH: Dilution Factor: 1

Instr. ID: ULI GC Sulfur Cleanup: Yes

Pa Batch: PA6898

CAS NO.	COMPOUND	CONCENTRATION UNITS ug/kg	Q
12674-11-2	Aroclor 1016	43	U
11104-28-2	Aroclor 1221	43	U
11141-16-5	Aroclor 1232	43	U
53469-21-9	Aroclor 1242	43	U
12672-29-6	Aroclor 1248	43	U
11097-69-1	Aroclor 1254	43	U
11096-82-5	Aroclor 1260	43	U

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PCB ANALYSIS DATA SHEET

NYSDEC SAMPLE NO. T-20-1

Lab Name: Upstate Labs Inc. Contract: BOARDS/LY

Lab Code: 10170 Case No.: SAS No.: SDG No.: BOA-01

Matrix: SOIL Lab Sample ID: 138-23

Sample wt.: 30 (G) Lab File ID: GA0743

% Moisture: 29 Decanted: NO Date Received: 5/18/01

Extraction: SHAKER Date Extracted: 5/25/01

Conc Extract Vol.: 10000 (uL) Date Analyzed: 6/13/01

Injection Vol.: 1 (uL) Time Analyzed: 1444

GPC Cleanup: No pH: Dilution Factor: 1

Instr. ID: ULI 65 Sulfur Cleanup: Yes

Pa Batch: PA6398

CAS NO.	COMPOUND	CONCENTRATION UNITS ug/kg	Q
12674-11-2	Aroclor 1016	47	U
11104-28-2	Aroclor 1221	47	U
11141-16-5	Aroclor 1232	47	U
53469-21-9	Aroclor 1242	47	U
12672-29-6	Aroclor 1248	47	U
11097-69-1	Aroclor 1254	47	U
11096-82-5	Aroclor 1260	47	U

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PCB ANALYSIS DATA SHEET

NYSDEC SAMPLE NO. T-20-2

Lab Name: Upstate Labs Inc. Contract: BOARDSLEY

Lab Code: 10170 Case No.: SAS No.: SDG No.: BOA-01

Matrix: SOIL

Lab Sample ID: 138-74

Sample wt.: 30 (G) Lab File ID: GA0743

% Moisture: 26 Decanted: NO Date Received: 5/18/01

Extraction: SHAKER Date Extracted: 5/25/01

Conc Extract Vol.: 10000 (uL) Date Analyzed: 6/13/01

Injection Vol.: 1 (uL) Time Analyzed: 2:19 AM

GPC Cleanup: No pH: Dilution Factor: 1

Instr. ID: ULI GC Sulfur Cleanup: Yes

Pa Batch: GA6898

CAS NO.	COMPOUND	CONCENTRATION UNITS UG/KG	Q
12674-11-2	Aroclor 1016	45	U
11104-28-2	Aroclor 1221	45	U
11141-16-5	Aroclor 1232	45	U
53469-21-9	Aroclor 1242	45	U
12672-29-6	Aroclor 1248	45	U
11097-69-1	Aroclor 1254	45	U
11096-82-5	Aroclor 1260	45	U

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PCB ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.: T-21-1

Lab Name: Upstate Labs Inc.

Contract: Bewkesley

Lab Code: 10170 Case No.: SAS No.: SDG No.: 8014-01

Matrix: ~~SO~~ SOIL

Lab Sample ID: 138-75

Sample wt.: 30 (G)

Lab File ID: GA0743

% Moisture: 21 Decanted: NO

Date Received: 5/18/01

Extraction: SHAKER

Date Extracted: 5/25/01

Conc Extract Vol.: 10000 (uL)

Date Analyzed: 6/13/01

Injection Vol.: 1 (uL)

Time Analyzed: 2 5-5 PM

GPC Cleanup: No pH:

Dilution Factor: 1

Instr. ID: ULI GC

Sulfur Cleanup: Yes

Pa Batch: PA6898

CAS NO.	COMPOUND	CONCENTRATION UNITS ug/kg	Q
12674-11-2	Aroclor 1016	42	U
11104-28-2	Aroclor 1221	42	U
11141-16-5	Aroclor 1232	42	U
53469-21-9	Aroclor 1242	42	U
12672-29-6	Aroclor 1248	42	U
11097-69-1	Aroclor 1254	42	U
11096-82-5	Aroclor 1260	42	U

JB

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PCB ANALYSIS DATA SHEET

NYSDEC SAMPLE NO. T-21-2

Lab Name: Upstate Labs Inc.

Contract: Beardsley

Lab Code: 10170 Case No.: SAS No.: SDG No.: BGA-01

Matrix: Soil

Lab Sample ID: 138706

Sample wt.: 30 (g)

Lab File ID: CA0743

% Moisture: 21 Decanted: NO

Date Received: 5/18/01

Extraction: Sonicator

Date Extracted: 5/25/01

Conc Extract Vol.: 10000 (uL)

Date Analyzed: 6/13/01

Injection Vol.: 1 (uL)

Time Analyzed: 3 30 PM

GPC Cleanup: No pH:

Dilution Factor: 1

Instr. ID: ULI 65

Sulfur Cleanup: Yes

Pa Batch: PA2898

CAS NO.	COMPOUND	CONCENTRATION UNITS ug/kg	Q
12674-11-2	Aroclor 1016	42	U
11104-28-2	Aroclor 1221	42	U
11141-16-5	Aroclor 1232	42	U
53469-21-9	Aroclor 1242	42	U
12672-29-6	Aroclor 1248	42	U
11097-69-1	Aroclor 1254	42	U
11096-82-5	Aroclor 1260	42	U

JMS

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PCB ANALYSIS DATA SHEET

NYSDEC SAMPLE NO. T-22-1

Lab Name: Upstate Labs Inc. Contract:

Lab Code: 10170 Case No.: SAS No.: SDG No.: B64-01

Matrix: SOIL Lab Sample ID: 138-77

Sample wt.: 30 (G) Lab File ID: G10743

% Moisture: 33 Decanted: NO Date Received: 5/18/01

Extraction: SHAKER Date Extracted: 5/25/01

Conc Extract Vol.: 10000 (uL) Date Analyzed: 6/13/01

Injection Vol.: 1 (uL) Time Analyzed: 4:06 AM

GPC Cleanup: No pH: Dilution Factor: 1

Instr. ID: ULI 65 Sulfur Cleanup: Yes

Pa Batch: PA6898

CAS NO.	COMPOUND	CONCENTRATION UNITS ug/Kg	Q
12674-11-2	Aroclor 1016	43	U
11104-28-2	Aroclor 1221	43	U
11141-16-5	Aroclor 1232	43	U
53469-21-9	Aroclor 1242	43	U
12672-29-6	Aroclor 1248	43	U
11097-69-1	Aroclor 1254	43	U
11096-82-5	Aroclor 1260	43	U

JMS