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ENVIRONMENTAL, INC.

Environmental Engineers

Voluntary Investigation Report/ Remedial Action Workplan

Waters Edge
200 East Main Street
Port Jervis, New York
Site Identification # V00433-3

Prepared for
City of Port Jervis
Port Jervis, New York

By
IVI Environmental, Inc.
White Plains, New York

IVI Project No.: E1015676
March 30, 2001
Revised April 27, 2001

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IVI

March 30, 2001
Revised April 27, 2001

IVI
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Environmental Engineers

Mr. Thomas L. Gibbons
Engineering Geologist
Division of Environmental Remediation
50 Wolf Road
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Re: IVI Project No.: E1015676
Site Identification # V00433-3
Waters Edge
200 East Main Street
Port Jervis, New York

Dear Mr. Gibbons:

IVI Environmental, Inc. (IVI) is pleased to provide this Voluntary Investigation Report (VIR)/Remedial Action Workplan (RAW) for the Waters Edge Property located in Port Jervis, New York.

This report summarizes our findings, describes applicable New York State Department of Environmental Conservation (NYSDEC) cleanup standards, and provides a Remedial Action Workplan. Please do not hesitate to call me at (914) 694-9600 if you have any questions regarding this VIR/RAW.

Sincerely,

IVI Environmental, Inc.

Charles B. Mulligan Jr.
Project Manager

CBM/gg

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EXECUTIVE SUMMARY

IVI Environmental Inc. (IVI) has prepared this Voluntary Investigation Report/Remedial Action Workplan (VIR/RAW) on behalf of the City of Port Jervis (City) to address soil and groundwater contamination at the Waters Edge property located at 200 East Main Street, Orange County, Port Jervis, New York (Subject). This VIR/RAW was prepared in accordance with the Voluntary Investigation Workplan completed by IVI dated February 6, 2001 and the Voluntary Investigation Workplan Addendum letter dated February 14, 2001.

This VIR/RAW was designed to supplement the results of all previous environmental assessments and investigations on the Subject. More specifically, the purpose of this VIR/RAW was to: 1) characterize the geologic and hydrogeologic conditions on the Subject; 2) further assess the nature and extent of contamination in soil and groundwater at the Subject; and 3) provide a Remedial Action Workplan to address the identified contamination.

The scope of this Voluntary Investigation (Investigation) included the following tasks: 1) a review of all previous environmental reports performed on the Subject; 2) an Underground Storage Tank (UST) assessment; 3) groundwater monitoring well sampling; 4) a Geoprobe investigation; 5) a test pit investigation; 6) a geophysical survey; and 7) sump sampling.

The Subject's groundwater has been contaminated by chlorinated volatile organic compounds (VOCs) and metals as a result of historical manufacturing operations conducted by Barrier Industries at the Subject. The results of this Investigation indicated that no VOC contamination was found within the Subject's soils. Minor Semi-VOC (SVOC) exceedances, less than one order of magnitude above applicable the New York State Department of Environmental Conservation (NYSDEC) Technical and Administrative Guidance Memorandum (TAGM) No. 4046 Recommended Soil Cleanup Objectives (RSCOs), were detected within the soil samples collected from the southern portion of the site. This contamination is likely attributable to the small quantity of fill noted in this area. Additionally, minor metals exceedances, less than one order of magnitude above applicable RSCOs, were detected within localized areas of the Subject. No PCBs were identified within the soils in the vicinity of the former transformers.

Additionally, there is a chlorinated VOC contaminated groundwater plume containing levels of 1,1,1 trichloroethane (TCA), trichloroethylene (TCE) and cis-1,2, dichloroethylene (DCE), all above their respective NYSDEC Groundwater Quality Standards (GQSs), beneath the Subject. This plume is approximately 4.43 acres in size and appears to be migrating in the direction of groundwater flow towards the Neversink river. The area of highest contamination appears to be located on the north central portion of the site. No SVOC contamination in excess of GQSs was detected on-site. Additionally, minor metals contamination was detected within the Subject's groundwater. Specifically, aluminum, antinomy, cobalt, iron, and manganese concentrations were detected above their respective GQSA. With the exception of manganese, the metals were detected at concentrations of less than one order of magnitude above their respective GQSs. Further, within ten of the twelve groundwater samples collected, the pH of the Subject's groundwater was found to be slightly lower than its GQS.

EXECUTIVE SUMMARY- continued

No anomalies were detected during the geophysical survey around the perimeter of the abandoned residential structure. In addition, our field investigation revealed the presence of a natural gas-fired boiler within the basement of the building. Further, no fill or vent pipes were noted on or around the structure. As such, it is not suspected that an UST is present in the vicinity of the residential structure.

An out-of-service underground storage tank (UST) is located adjacent to the boiler building. The tank was found to contain approximately 3' of liquid, observed to be primarily water, although a slight odor and sheen was noted. No visually impacted soil was noted during test pit or soil boring activities in the area. Soil and groundwater samples collected from the area indicated no detectable levels of petroleum contamination were found in the vicinity of the UST. As such, this tank is not suspected to have had a significant impact on the Subject's soil and groundwater.

A sump, located in the northern portion of the warehousing building, identified during a walkthrough of the building was found to contain high concentrations of 1,1-dichlorethane (DCA) and 1,1,1-trichloroethane (TCA). IVI estimates the volume of liquid/sludge within this sump to be approximately 5-gallons. Based on conversations with representatives of the City of Port Jervis Department of Public Works and the prospective property developer, there are no subsurface disposal systems on-site, and all wastewater is discharged to the municipal system. This fact was further confirmed by direct observation of a wastewater pumping station located on the southern portion of the Subject.

Based on the results of this Investigation, a Remedial Action Plan consisting of the following activities is recommended: 1) the construction of a soil cap of clean fill to minimize exposure potential; 2) the removal of the out-of-service UST; 3) the installation of monitoring wells to further delineate the chlorinated VOC contaminated groundwater plume; 4) the installation of in-situ physical bio-chemical remediation injection points; 5) full scale in-situ physical bio-chemical remediation; 6) a monitoring well and injection point survey; 7) performance of post-remediation groundwater sampling; and 8) preparation of a Remedial Action Report following the completion of the monitoring program, which summarizes the overall findings of this program.

1.0 INTRODUCTION

1.1 Site Location and History

The Subject is located at 200 East Main Street in Port Jervis, Orange County, New York. The Subject is identified on local tax maps as Section 14, Block 6, Lot 28. The property, which is situated in a suburban area characterized by residential and commercial retail and office development, consists of an approximately 7-acre parcel improved with an approximately 80-year-old, 100,000 SF vacant industrial facility. Barrier Industries manufactured industrial janitorial chemicals on-site from 1978 until December 1993. The site was first developed prior to 1921 with a silk mill and several storage and residential buildings. Site improvements include three separate buildings, including a house, interconnected production and storage buildings, and a boiler building. The buildings are of slab-on-grade and basement construction, and the superstructures are of structural steel and masonry bearing walls. The Subject is serviced by public water and sanitary sewers.

The site slopes gently from the northwest to southeast. According to the United States Geological Survey (USGS) *Port Jervis South, NY, NJ, PA* 7.5 Minute Series topographic map, the Subject's topographic elevation ranges from 450' to 430' above mean sea level (msl).

A Sample Location Map depicting the property lines, building outlines, and boring, test pit and monitoring well locations on the Subject is included as Figure 2 in Appendix A.

1.2 Site Documentation

A chronological list and summary of previous environmental reports prepared on the Subject is presented below.

1.2.1 Phase I Environmental Field Inspection Report, dated July 6, 1998, prepared by Advanced Testing Corporation (ATC) on behalf of Warwick Properties

According to this report, the Subject was the site of Barrier Systems, which manufactured institutional cleaning supplies and floor waxes. ATC noted some asbestos-containing pipe insulation within the buildings and also stated that lead based paint (LBP) may be present on painted surfaces. Additionally, ATC advanced six test pits to depths of 6' to 8' bgs on the Subject. A total of two composite soil samples were collected from the test pits and analyzed for EPA Priority Pollutants. With the exception of chromium, copper, lead, nickel, and zinc, no contaminants were detected above laboratory Method Detection Limits (MDLs). According to this report, ATC was informed by a New York State Department of Environmental Conservation (NYSDEC) representative that the concentrations of the metals identified were considered normal background levels.

1.0 INTRODUCTION – continued

ATC concluded that based on the sampling data, the on-site soils were generally free of pollutants and would not present a hazard to persons exposed during construction activities. ATC further recommended that the soils be visually monitored as work progresses and additional evaluation be conducted should conditions significantly different from those observed in their investigation be encountered.

1.2.2 Phase I Environmental Site Assessment (ESA) dated August 21, 2000 prepared by IVI Environmental, Inc. on behalf of Community Preservation Corporation.

According to this report, the site was formerly improved with the Barrier Facility, prior to which the site was improved with a silk mill. This report identified numerous recognized environmental conditions in conjunction with the Subject. The issue of primary concern was the historical manufacturing of cleaning supplies. According to this report, an estimated 15,000 drums, pails, lab chemical containers, and approximately 200 storage tanks and reactor vessels of hazardous wastes, chemical products, and product precursors were abandoned in the facility, in trailers, and outside the building when the company filed for bankruptcy.

Chemicals discovered on site included various acids and volatile organic compounds including 1,1,1 trichloroethane (TCA) and toluene. Several complaints and chemical releases were reported and finally, after freezing temperatures caused water pipes and drums to burst, the NYSDEC investigated the site and initiated an emergency removal and cleanup action. This led to the inclusion of the Subject on the USEPA CERCLIS and NYSDEC Inactive Hazardous Waste Disposal Sites databases. The drums were overpacked, sorted, categorized, and shipped off site for disposal. The cleanup was turned over to the USEPA and completed in 1995. Additionally, a monitoring well, indicating previous investigation, was noted on Lot 2 of the Subject. Finally, an abandoned UST was noted adjacent to the boiler building on Lot 3.

Based on these findings, IVI recommended that a subsurface investigation be conducted on the Subject. IVI also noted the possible presence of asbestos-containing materials and LBP.

1.2.3 Phase II Environmental Site Assessment (ESA), dated November 27, 2000, prepared by IVI Environmental, Inc. on behalf of the Community Preservation Corporation.

IVI conducted a Phase II ESA on the Subject in November 2000 to address the areas of environmental concern identified in the Phase I ESA described above. This Assessment consisted of the advancement of five borings and the collection and analysis of five soil samples and three groundwater samples. The soil samples were analyzed for volatile and semi-volatile organic compounds (VOCs and SVOCs) in accordance with EPA Methods 8260C and 8270 (base neutrals only), respectively.

1.0 INTRODUCTION – continued

Additionally, three of the five soil samples were also analyzed for SVOCs (acid extractables) and pesticides, via EPA Methods 8270 and 8081, respectively. The groundwater samples were analyzed for VOCs, SVOCs, pesticides, priority pollutant metals (PPMs), and pH in accordance with EPA Methods 8260, 8270, 8081, 200.7 (245 for mercury), and 305, respectively.

The analytical results of the soil samples indicated that no VOCs, SVOCs, or pesticides were present above laboratory MDLs in the soil samples collected. The analytical results of the groundwater samples indicated that six VOCs were present above their respective laboratory MDLs in the samples collected. Specifically, 1,1,1-TCA at 30 parts per billion (ppb), 1,1-dichloroethane (DCA) at 3 ppb, chloroform at 3 ppb, p&m xylenes at 2 ppb, tetrachloroethylene (PCE) ranging from 2 to 12 ppb, and trichloroethylene (TCE) ranging from 5 to 67 ppb were detected in the Subject's groundwater. In addition, the concentrations of 1,1,1-trichloroethane, PCE, and TCE exceeded their respective NYSDEC Groundwater Quality Standard (GQS) of 5 ppb given in 6 NYCRR Chapter X Part 703. Only one SVOC, diethylphthalate at 13 ppb, was detected in the groundwater samples. However, the concentration of diethylphthalate detected was below its NYSDEC GWQS of 50 ppb.

Additionally, eleven metals were detected in the Subject's groundwater, seven of which exceeded their respective NYSDEC GQS. Specifically, arsenic at concentrations up to 0.075 parts per million (ppm), beryllium at concentrations up to 0.031 ppm, cadmium at concentrations up to 0.014 ppm, chromium at concentrations up to 0.824 ppm, copper at concentrations up to 0.699 ppm, lead at concentrations up to 3.55 ppm, nickel at concentrations up to 0.589 ppm, and selenium at concentrations up to 0.2 ppm were found in excess of their respective NYSDEC GQS of 0.025 ppm, 0.003 ppm, 0.005 ppm, 0.05 ppm, 0.2 ppm, 0.025 ppm, 0.1 ppm, and 0.01 ppm. Additionally, the pH of the Subject's groundwater ranged from 1.6 to 5.84, which was outside the NYSDEC GQS range of 6.5 to 8.5. Of note, based on the results of the subsequent groundwater sampling, it appears that the low pH readings are anomalous readings. No pesticides were present above laboratory MDLs in the samples collected.

2.0 OBJECTIVES OF VOLUNTARY INVESTIGATION

As a result of the AOCs identified from previous environmental assessments and investigations conducted on the Subject, the Subject site was accepted into NYSDEC Voluntary Cleanup Program (VCP) and was issued Site Identification No. V00433-3.

Subsequently, IVI attended an on-site meeting with the NYSDEC, the prospective property developer, and representatives of the City on January 18, 2001 to agree on a Scope of Work for further investigation of the Subject, which would enable the City to obtain a No Further Action (NFA) letter from the NYSDEC. Pursuant to the items discussed at the January 18 meeting, IVI prepared and submitted to the NYSDEC a detailed Voluntary Investigation Workplan (Workplan) dated February 6, 2001. The NYSDEC reviewed the Workplan and provided comments in a letter dated February 14, 2001. IVI provided the NYSDEC with the Workplan Addendum Letter dated February 14, 2001, which addressed the issues raised in their February 14 letter.

This VIR/RAW was designed to supplement the results of all previous environmental assessments and investigations conducted on the Subject. More specifically, the objectives of this VIR/RAW are: 1) to characterize geologic and hydrogeologic conditions on the Subject; 2) to further assess the contamination in soil and groundwater at the Subject; and 3) provide a Remedial Action Workplan to address the identified contamination.

3.0 VOLUNTARY INVESTIGATION SCOPE/ FIELD ACTIVITIES

The scope of this Voluntary Investigation (Investigation) consisted of the following tasks: 1) an UST assessment; 2) groundwater monitoring well sampling; 3) a Geoprobe investigation; 4) a test pit investigation; 5) a geophysical survey; and 6) sump sampling. A sample location plan depicting each boring and test pit location is provided as Figure 2 in Appendix A. All field activities were conducted from February 20, 2001 through February 23, 2001 and were performed by an engineer/geologist representing IVI. In addition, a representative of the NYSDEC was on-site during the field activities. The field activities are discussed in further detail below:

3.1 Geophysical Survey

IVI conducted a geophysical survey to determine the location of the abandoned UST, whether any USTs associated with the abandoned residential structure were present, and to identify the locations of the two existing monitoring wells. Specifically, IVI screened the area of the abandoned UST, around the perimeter of the abandoned residential structure, and the suspected area of the existing monitoring wells using a metal detector capable of identifying ferrous and non-ferrous metal objects.

3.2 UST Assessment

IVI excavated four test pits (TP-7, TP-8, TP-9 and TP-10) around the abandoned UST, located adjacent to the boiler building, to delineate potential petroleum contamination, should any exist. All soil was visually inspected for evidence of contamination and screened for VOCs with a photoionization detector (PID). Test pits TP-7 through TP-9 were advanced to approximately 16' below ground surface (bgs) below the invert of the UST. Of note, soil observed to be slightly moist at approximately 14.5' bgs. The UST was identified during the excavation of TP-9, approximately 20' south of the previously reported location. As such, test pit TP-10 was excavated to 6' bgs to confirm that no tank was present in the reported location. No visual evidence of contamination was observed within any of the excavations. However, low PID readings up to 50 ppm were observed in soils from TP-7 and TP-9. A total of three soil samples were collected, one from each test pit TP-7, TP- 8, and TP-9.

Soil samples collected were transferred to appropriate sample containers, packed on ice in a cooler, and sent to an Environmental Laboratory Approval Program (ELAP), Contract Laboratory Protocol (CLP) – certified laboratory for analysis. Laboratory analysis included VOCs and SVOCs in accordance with the NYSDEC Spill Technology and Remediation Series (STARS) Memo #1, protocols.

3.3 Monitoring Well Sampling

As described in Section 3.1 above, IVI attempted to locate the two monitoring wells reported to be present on-site. However, only one monitoring well was identified. IVI collected a groundwater sample from the existing monitoring well on February 21, 2000. Prior to sampling, IVI inspected the well and obtained measurements of water

3.0 VOLUNTARY INVESTIGATION SCOPE/ FIELD ACTIVITIES- continued

level and well bottom to determine well volumes. The well was then purged, utilizing a dedicated and disposable polyethylene bailer, of three to five well volumes to obtain groundwater samples that are representative of the aquifer conditions.

IVI collected water quality parameter readings, including dissolved oxygen (DO), pH, specific conductance, turbidity and temperature, prior to purging, and following the second and all subsequent well volume purges. Purging continued until successive readings were within ten percent. Copies of the Monitoring Well Purging and Sampling Data Logs are provided in Appendix D.

The groundwater sample was transferred to appropriate sample containers, packed on ice in a cooler, sent for analysis to an ELAP, CLP-certified laboratory, and analyzed via NYS Analytical Service Protocol (ASP) for 95-1 (VOCs), 95-2 (SVOCs) (acid extractables only), and CLP metals. All samples were collected and managed in accordance with good and customary engineering protocols.

3.4 Test Pit Investigation

IVI excavated six test pits (TP-1 through TP-6) on the southwestern portion of the site. The test pits were advanced to a depth of 6' bgs. All soil removed was visually inspected for evidence of contamination and screened for VOCs with PID. No visual evidence of contamination was observed within any of the excavations. However, low PID readings, up to 75 ppm, were observed in soils from test pits TP-3 and TP-4. A total of three soil samples, one from test pits TP-3 at 5'-6' bgs, TP-4 at 5'-6' bgs, and TP-6 at 5'-6'bgs, were collected. The soil samples were transferred to appropriate sample containers, packed on ice in a cooler, sent for analysis to a certified laboratory, and analyzed via NYS ASP for 95-1 (VOCs), and 95-2 (SVOCs, base neutrals and acid extractables). The soil samples collected from test pits TP-3 and TP-6 were also analyzed for CLP Metals.

3.5 Geoprobe Investigation

IVI advanced 14 borings on the Subject using Geoprobe equipment. Specifically, the following borings were advanced: 1) six borings (B-6 through B-11) along the southern property line; 2) two borings (B-12 and B-13) inside the Subject's building near IVI's previous boring B-4; 3) one boring (B-14) in the northwest corner of the Subject where acids were stored; 4) one boring (B-17) downgradient of the out-of-service UST; 5) one boring (B-18) in the vicinity of the reported location of the second monitoring well; 6) one boring (B-19), adjacent to product distribution lines; 7) one boring (B-20) inside the manufacturing building; and 8) one boring (B-21) on the northern portion of the property along East Main Street. Additionally, two borings (B-15 and B-16) were advanced in the vicinity of the transformer sub-station area utilizing manual equipment.

3.0 VOLUNTARY INVESTIGATION SCOPE/ FIELD ACTIVITIES- continued

Each boring (except borings B-15, B-16, and B-19) was advanced from the ground surface to approximately 4' to 6' below the soil/groundwater interface, which was located approximately 14' to 24' bgs. Borings B-15 and B-16 were advanced to a depth of 2' bgs, and boring B-19 was advanced to a depth of 4' bgs. At boring locations B-6, B-7, B-8, B-13, B-19 and B-21, continuous soil samples were collected using 4' long macrocore samplers and screened in the field for VOCs using a PID.

One soil sample from each boring (B-6, B-7, B-8 and B-13) was collected at the interval that indicated the highest level of contamination based on field screening results. No evidence of contamination was detected within borings B-19 or B-21 and as such, no soil samples were collected from this area.

Soil samples collected from boring B-6, B-7, B-8, and B-13 were analyzed via NYS ASP 95-1 (VOCs), 95-2 (SVOCs) (acid extractables), and CLP-metals. Additionally, the soil samples collected from borings B-8 and B-13 were also analyzed for 95-2 (SVOC) (base neutrals). Finally, soil samples collected from borings B-15 and B-16 analyzed via ASP 95-3 for PCBs.

Following completion of the borings and soil sampling activities, a groundwater sample was obtained from each boring, except B-15, B-16, and B-19, utilizing either hydropunch sampling equipment or a temporary wells constructed of 1" diameter PVC screen and riser, peristaltic pumps, check valves and dedicated and disposable polyethylene tubing, from each boring location (except borings B-15, B-16 and B-19).

Each groundwater sample was transferred to appropriate sample containers, packed on ice, and analyzed via NYS ASP for 95-1 (VOCs), 95-2 (SVOCs) (acid extractables only), CLP-metals and EPA Method 305 for pH. Of note, groundwater samples collected for metals analysis were collected within unpreserved containers and selected samples (borings B-8, B-9, B-11, B-12, B-13, B-14, and B-18) were filtered by the lab prior to analysis. However, due to laboratory error, the samples were mistakenly preserved prior to filtration, effectively negating the effect of filtration. As such, borings B-6, B-8, B-9, B-12, B-13, and B-18 were resampled for proper reanalysis on March 22, 2001. Additionally, the groundwater samples collected from boring B-20 and B-21 were analyzed only for VOCs via NYS ASP 95-1.

3.6 Sump Sampling

Although not originally detailed in the Voluntary Investigation Workplan, a sump, containing approximately five gallons of an unknown liquid, was observed within the manufacturing building. At the request of the on-site NYSDEC representative, IVI collected a sample of this liquid utilizing a disposable polyethylene bailer. This sample was analyzed via NYS 95-1 (VOCs).

3.0 VOLUNTARY INVESTIGATION SCOPE/ FIELD ACTIVITIES- continued

3.7 Quality Assurance/Quality Control (QA/QC) Procedures

QA/QC procedures were used to provide performance information with regard to accuracy, precision, sensitivity, representativeness, completeness, and comparability associated with the sampling and analysis activities conducted as part of this Investigation. Field QA/QC procedures were used to ensure that samples collected were representative of the actual conditions of the Subject and did not contain contaminants introduced either from the field activities or from sample transit.

Laboratory QA/QC procedures and analyses were used to demonstrate whether analytical results were biased either by interfering compounds present in the sample matrix or by laboratory techniques that may have introduced systematic or random errors to the analytical process. A summary of the field and laboratory QA/QC procedures that were followed as part of this investigation is given below.

3.7.1 Field QA/QC

Field QA/QC included the following procedures: 1) calibration of field equipment; 2) the collection of duplicate, trip, and field blank samples; 3) the use of dedicated and disposable field sampling equipment; 4) proper sample handling and preservation; 5) proper sample custody; and 6) the completion of report logs. A description of each of these procedures is provided below.

3.7.1.1 Calibration of Field Equipment

All field analytical equipment used, including the PID and water quality analyzer, were properly calibrated in accordance with manufacturer's recommendations and good and customary practices.

3.7.1.2. Collection of Field QA/QC Samples

Trip blanks were prepared by the certified laboratory with deionized laboratory grade water, and one blank accompanied all sample shipments to the laboratory. The water used was from the same source as that used for the laboratory method blank. The trip blanks were handled and transported in the same manner as the samples collected, which it accompanied. Trip blanks were analyzed for TCL VOCs in accordance with NYS 95-1 to identify the presence of cross-contamination as a result of sample shipment, for example, contaminated from the air, shipping containers, or from other items coming into contact with the sample bottles.

3.0 VOLUNTARY INVESTIGATION SCOPE/ FIELD ACTIVITIES- continued

Field blanks were prepared to ensure that samples collected were representative of the actual condition of the Subject and did not contain contaminants introduced from the field activities. Specifically, one field blank was collected per day by pouring or pumping laboratory supplied deionized water, over or through sampling equipment utilized, into appropriate sampling jars. The field blanks were analyzed for the same parameters as the soil and groundwater samples with the exception of pH.

3.7.1.3. Use of Disposable Field Sampling Equipment

Disposable sampling equipment, including latex gloves and disposable bailers and tubing, were used to prevent cross-contamination between samples. Field screening equipment, such as the water quality analyzer probe, was decontaminated after each sample by washing it with laboratory grade Alconox detergent and deionized water, and thoroughly air-drying equipment.

3.7.1.4. Sample Handling and Preservation

For each sample, a sufficient volume was collected to allow the specified analytical method to be performed according to protocol and to provide sufficient sample for reanalysis if necessary. Because plasticizers and other organic compounds inherent in plastic containers may contaminate samples requiring organic analysis, samples were collected in glass containers.

Appropriate sample preservation techniques, including cold temperature storage at 4° C, was utilized to ensure that the VOCs in the samples analyzed by the laboratory did not volatilize from the time the sample was collected in the field.

Samples were analyzed within proper holding times to ensure the integrity of the analytical results. Groundwater samples collected for VOC analysis were bottled with zero headspace to prevent premature loss of VOCs from diffusion into existing airspaces above the samples. This was accomplished by filling VOC vials used to collect aqueous samples until groundwater overflowed the top of the vial, screwing the cap on tightly, and turning the vial upside down to ensure that no air bubbles were trapped inside.

3.0 VOLUNTARY INVESTIGATION SCOPE/ FIELD ACTIVITIES- continued

3.7.1.5 Sample Custody

Sample handling in the field conformed to appropriate sample custody procedures. Field custody procedures included proper sample identification, chain-of-custody forms, and packaging and shipping procedures. Sample labels were attached to all sampling bottles before field activities began to ensure proper sample identification. Each label identified the site and sample location.

Each cooler was lined with two 6-mil thick plastic bags. Bubble wrap was used to absorb shock and prevent breakage of sample containers. VOC vials were packaged inside a plastic "Ziplock" bag prior to placement inside the cooler. Ice or ice packs were placed in between the plastic bags for sample preservation purposes.

After each sample was collected and appropriately identified, the following information was entered onto the chain-of-custody form: 1) site name and address; 2) sampler(s)' name(s) and signature(s); (3) names and signatures of persons involved in the chain of possession of samples; 4) sample number; 5) number of containers; 6) sample location; 7) date and time of collection; 8) type of sample, sample matrix and analyses requested; 9) preservation used (if any); and 10) any pertinent field data collected (pH, temperature, conductivity, and DO.

The sampler signed and dated the "Relinquished" blank space prior to removing one copy of the custody form and sealing the remaining copies of the form in a Ziplock plastic bag taped to the underside of the sample cooler lid. After sample containers were sufficiently packed and the chain-of-custody form completed, the 6-mil plastic bags were sealed around the samples by twisting the top and securely taping the bag closed to prevent leakage. A sample custody seal was placed around the neck of the bag, which included the signature of the project manager and the date.

The sample cooler was sealed with tape prior to delivery or shipment to the certified laboratory. Additionally, sample custody seals were placed around the cooler lid to detect unauthorized tampering with samples following collection and prior to the time of analysis. The seals were attached in such a way that it would be necessary to break them in order to open the container. Seals were affixed at the time of sample packaging and included the signature of the project manager and the date.

3.0 VOLUNTARY INVESTIGATION SCOPE/ FIELD ACTIVITIES- continued

Samples were hand delivered to the certified laboratory and were packaged and labeled for shipment in compliance with current U.S. Department of Transportation (DOT) and International Air Transport Association (IATA) dangerous goods regulations.

3.7.1.6 Report Logs

The following project logs were completed during the course of this investigation: 1) field logs, 2) boring logs, and 3) monitoring well purging and sampling data logs. A field log was completed on a daily basis which described all field activities including: 1) project number, name, manager, and address; 2) date; 3) weather; 4) attendees on-site and associated affiliations; 5) description of field activities; and 6) all pertinent sample collection information including sample identification numbers, description of samples, location of sampling points, number of samples taken, method of sample collection and any factors that may affect its quality, time of sample collection, name of collector, and field screening results.

Boring logs were completed during the advancement of each boring on-site. The following information was recorded on each data log: 1) project number, name, manager, and location; 2) boring number; 3) soil classification; 4) depth of boring; 5) depth of soil/groundwater interface; 6) date; 7) drilling method; and 8) drilling company.

A monitoring well purging and sampling data log was completed following purging and sampling of each monitoring well. The following information was recorded on each data log: 1) project number, name, manager, and location, 2) monitoring well number, 3) well casing diameter and stick-up height, 4) depth of well from top of well casing and roadbox, 5) date, 6) time, 7) water analyzer used, 8) distance from top of well casing to water and free product, and 9) the pH, temperature, conductivity, and DO content associated with each monitored well volume removed.

3.7.2 Laboratory QA/QC

A CLP-certified laboratory was used for all sample analyses performed as part of this investigation. This laboratory followed all applicable NYSDEC analytical laboratory QA/QC protocols and procedures. Additionally, laboratory QA/QC sample custody procedures followed is provided below.

3.0 VOLUNTARY INVESTIGATION SCOPE/ FIELD ACTIVITIES- continued

3.7.2.1. Sample Custody

All samples were delivered to the CLP-certified laboratory via hand delivery. Samples were received by laboratory personnel whom inspected the sample cooler(s) to check the integrity of the custody seals. The cooler(s) were then opened, the samples unpackaged and the information on the chain-of-custody form examined.

If the samples shipped matched those described on the chain-of-custody form, the laboratory sample custodian signed and dated the form on the next "Received" blank and assume responsibility for the samples. If problems were noted with the sample shipment, the laboratory custodian would have signed the form and recorded problems in the "Remarks" box. The custodian would then have immediately notified the Project Manager so appropriate follow-up steps could be implemented on a timely basis. All samples were then logged into a sample log book and/or computerized information system. The following information was recorded: 1) date and time of sample receipt; 2) project number; 3) field sample number; 4) laboratory sample number (assigned during log-in procedure); 5) sample matrix; 6) sample analytical parameters; 7) storage location; and 8) log-in person's initials. A record of the information detailing the handling of a particular sample through each stage of analysis was provided by the completion of a laboratory chronicle form. The following information was included on this form: 1) job reference; 2) sample matrix; 3) sample number; 4) date sampled; 5) date and time received by laboratory; 6) holding conditions; 7) analytical parameters; 8) extraction date, time and extractor's initials (if applicable); 9) analysis date, time, and analyst's initials; and 10) QA batch number, date reviewed, and reviewer's initials.

All information relevant to the samples was secured at the end of each business day. All samples were stored in a designated sample storage refrigerator, access to which was limited to laboratory employees.

4.0 VOLUNTARY INVESTIGATION RESULTS

4.1 Site Stratigraphy and Hydrogeology

4.1.1 Topography

According to the USGS *Port Jervis South, NY, NJ, PA* 7.5 Minute Series topographic map, the Subject's topographic elevation ranges from 450' to 430' above mean sea level (msl). The Subject slopes gradually from the northwest to the southeast. A topographic map is included as Figure 1 in Appendix A.

4.1.2 Soils

IVI reviewed a letter report pertaining to test pits excavated at the Subject prepared by Advance Testing Company, Inc. on behalf of Warwick Properties dated July 6, 1998. This report stated that soils at the site consist of fill material composed of silty sand, gravel, cinders, and traces of brick. According to the October, 1981 *Soil Survey of Orange County, New York* issued by the United States Department of Agriculture, Soil Conservation Service, the soils at the site are classified as sandy loam or gravelly sandy loam of the Basher, Otisville and Hoosic series. Permeability of these soils is moderate to rapid. Subsurface soils encountered during this Investigation were composed of fine to coarse brown sand with moderate quantities of clay and silt.

4.1.3 Geology

According to the aforementioned Soil Survey, parent material of soils in Orange County is typically glacial till with some soils forming form alluvium. Based on review of the *Geologic Map of New York,* prepared by the University of the State of New York dated 1989, the Subject's surficial geology is comprised of recent deposits, consisting of fine sands and silt to gravel. Additionally, according to the *Geologic Map of New York* prepared by the University of the State of New York dated 1970, the Subject is underlain by the Middle Devonian-aged Hamilton Group, of the Valley and Ridge Province. This information is primarily comprised of shales and sandstones. Bedrock was not encountered during this investigation and is anticipated to be located more than 20' below ground surface (bgs).

4.1.4 Hydrogeology

The nearest surface water body is the Neversink River, which is located adjacent to the Subject's southeast property boundary and flows south towards the Delaware River. Groundwater was encountered at depths ranging between 25' bgs, on the northern portion of the Subject, to 16' bgs on the southern portion. Given the topography of the site, groundwater flow is anticipated to be from the north to the south.

4.0 VOLUNTARY INVESTIGATION RESULTS

4.2 Assessment of Analytical Results

The analytical results of all soil and groundwater samples collected on the Subject are summarized on Tables 1, 2, and 3, respectively, in Appendix B. The soil analytical results, with the exception of soils collected from test pits TP-7, TP-8, and TP-9, were compared to the NYSDEC Technical Administrative Guidance Memorandum (TAGM) 4046 Recommended Soil Cleanup Objectives (RSCO). Samples collected from TP-7, TP-8, and TP-9 to address the UST were compared to the NYSDEC STARS Memo #1 Toxicity Characteristic Leaching Procedure (TCLP) Alternative Guidance Values (AGVs). Groundwater analytical results were compared to the NYSDEC GQS. The complete laboratory report is presented in Appendix E.

4.2.1 UST Assessment Analytical Results

A total of three soil samples were collected and analyzed for STARS list VOCs and SVOCs from three of the four test pits (TP-7, TP-8, and TP-9). In addition, a groundwater sample was collected and analyzed for the same parameters from Geoprobe boring B-17, which was advanced in the vicinity of the out-of-service UST.

The analytical data of the soil and groundwater samples indicate no levels of STARS list VOCs or SVOCs above laboratory method detection limits (MDLs) were found.

4.2.2 Monitoring Well Analytical Results

One groundwater sample was collected from monitoring well MW-1 on February 21, 2001 and analyzed for VOCs, SVOCs (acid extractables), CLP Metals, and pH.

The analytical results of the groundwater sample indicated no levels of VOCs in excess of laboratory MDLs were found. One SVOC, bis(2-ethyhexyl)phthalate, was detected at a concentration of 1.3 ppb, which is well below its GQS of 5 ppb. However, 22 metals were identified with the groundwater sample collected, ten of which exceeded their respective GQS. Specifically, concentrations of, aluminum of 11,400 ppb, antimony of 8.9 ppb, arsenic of 29.3 ppb, chromium of 120 ppb, cobalt of 7.2 ppb, iron of 60,300 ppb, lead of 35.4 ppb, manganese of 6.97 ppb, mercury of 1 ppb, and vanadium of 43.6 ppb, exceeded their GQSs of 100 ppb, 3 ppb, 25 ppb, 50 ppb, 300 ppb, 0.7 ppb, and 14 ppb, respectively. Of note, the metals levels are biased high due to the high turbidity of the sample and the acidification of the sample. The pH of this sample was 5.9, which is below its GQS range of 6.5 to 8.5.

4.0 VOLUNTARY INVESTIGATION RESULTS - continued

4.2.3 Test Pit Assessment Analytical Results

A total of three soil samples were collected from three of the six test pits (TP-3, TP-4, and TP-6) advanced on the southwest portion of the site. Samples collected from TP-3 and TP-6 were analyzed for VOCs, SVOCs, and Metals. The sample collected from TP-4 was analyzed for VOCs and SVOCs.

The analytical results indicated no levels of VOCs in excess of laboratory MDLs were found. However, 18 SVOCs and 20 metals were detected within the soil samples collected. Only three SVOCs and four metals were detected above their respective TAGM RSCOs. Specifically, concentrations of benzo(a)anthracene up to 570 ug/kg, chrysene up to 630 ug/kg, benzo(a)pyrene up to 560 ug/kg, beryllium up to 0.81 ug/kg, mercury of 0.33 ug/kg, nickel up to 15.2 ug/kg and zinc up to 67.2, exceeded their RSCOs of 224 ug/kg, 400, ug/kg, 61 ug/kg, 0.16 ug/kg, 0.1 ug/kg, 13 ug/kg, 20 ug/kg, respectively. Of note, the detected concentrations of nickel and zinc are within Eastern USA background levels as provided in TAGM 4046.

4.2.4 Geoprobe Soil and Groundwater Analytical Results

A total of five soil and 12 groundwater samples were collected and analyzed for VOCs, SVOCs (acid extractables only), and CLP Metals from 12 Geoprobe borings (B-6 through B-14, B-18, B-20, and B-21) advanced throughout the site. Additionally, the soil samples collected from borings B-8 and B-13 were analyzed for base neutral SVOCs, and all groundwater samples were analyzed for pH.

The analytical results of the soil samples indicated no levels of VOCs in excess of laboratory MDLs were found. However, seven SVOCs and 18 metals were detected within the soil samples collected. None of the SVOCs were detected above their respective TAGM RSCOs. Two metals were detected above their respective TAGM RSCOs. Specifically, concentrations of beryllium up to 0.34 ug/kg and zinc up to 50.2 ug/kg exceeded their RSCOs of 0.16 ug/mg, and 20 ug/kg, respectively. Of note, the concentrations of beryllium and zinc are within Eastern USA background levels as provided in TAGM 4046.

The analytical results of the groundwater samples indicated detectable levels of seven VOCs, four SVOCs, and 22 metals were found. None of the SVOCs were detected above their respective GQSs. However, three VOCs and 17 metals were detected above their respective GQSs. Specifically, concentrations of, 1,1,1-trichloroethane TCA of 80 ppb, TCE up to 2,700 ppb, and cis-1,2-dichloroethene (DCE) up to 9.1 ppb, exceeded their GQS of 5ppb.

4.0 VOLUNTARY INVESTIGATION RESULTS - continued

Additionally, concentrations of, aluminum up to 1,680,000 ppb, arsenic up to 637 ppb, barium up to 21,400 ppb, beryllium up to 81.9 ppb, cadmium up to 59.3 ppb, chromium up to 2,860 ppb, cobalt up to 1,940 ppb, copper up to 4,010 ppb, iron up to 3,630,000 ppb, and lead up to 3,050 ppb, exceeded their GQS of 100 ppb, 25 ppb, 1,000 ppb, 3 ppb, 5 ppb, 50 ppb, 5 ppb, 200 ppb, 300 ppb, and 25 ppb, respectively.

Further, concentrations of, magnesium up to 485,000 ppb, manganese up to 211,000, mercury up to 8.2 ppb, nickel up to 4,060,000 ppb, selenium up to 93.2 ppb, thallium up to 270 ppb, and vanadium up to 772 ppb, exceeded their GQS of 35,000 ppb, 300 ppb, 0.7 ppb, 100 ppb, 10 ppb, 8 ppb, and 14 ppb, respectively. However, the metals concentrations detected are significantly biased high. Due to laboratory error, the samples were acidified prior to filtration, resulting in the leaching of metals from the soil component of the sample. This theory is supported by the fact that groundwater samples, which were observed to be the least turbid, exhibited significantly lower metals in groundwater concentrations. As such, six sampling locations, B-6, B-8, B-9, B-12, B-13, and B-18, were resampled on March 22, 2001, filtered, and reanalyzed for metals. The analytical results of the filtered groundwater samples indicated only five metals were identified above their respective GQS, Specifically, concentrations of, aluminum up to 634 ppb, antimony up to 11.4 ppb, cobalt up to 24.8, iron up to 615 ppb, and manganese up to 6,150 ppb exceeded their GQS of 100 ppb, 3 ppb, 5 ppb, 300 ppb, and 300 ppb, respectively. With the exception of the concentration of manganese detected, none of the concentrations detected were in excess of one order of magnitude above their respective GQS.

Further, all but two of the groundwater samples were found to have a pH less than the NYSDEC minimum of 6.5, with the lowest being 5.1 in boring B-6.

4.2.5 Transformer Area Assessment Analytical Results

A total of two soil samples were collected and analyzed for PCBs from borings advanced in the former transformer area.

The analytical data of the soil samples indicated no levels of PCBs above laboratory MDLs were found.

4.2.6 Interior Sump Assessment Analytical Results

One liquid sample was collected and analyzed for VOCs from a sump located within the manufacturing building. Concentrations of 1,1-DCA and 1,1,1-TCA were identified at 15,000 ppb and 6,100 ppb, respectively.

4.0 VOLUNTARY INVESTIGATION RESULTS - continued

4.2.7 Field QA/QC Samples

A total two duplicate samples, two field blanks, and two trip blanks were prepared and analyzed to ensure that samples collected were representative of the actual conditions of the Subject, and did not contain contaminants introduced either from the field activities or from sample transit. Laboratory results of the field and trip QA/QC samples indicated that no detectable concentrations of contaminants were found in any of the samples. Analysis of the duplicate samples indicated comparable levels of contamination in each.

5.0 VOLUNTARY INVESTIGATION SUMMARY AND CONCLUSIONS

5.1 Site Soils

The results of this Investigation indicated that no VOC contamination was found within the Subject's soils. Minor SVOC exceedances, less than one order of magnitude above their respective RSCOs were detected within the soil samples collected from test pits TP-3 and TP-4, located on the southern portion of the site. This contamination is likely attributable to the small quantity of fill noted in this area. Additionally, minor metals exceedances, less than one order of magnitude above their respective RSCOs, were detected within localized areas of the Subject. No PCBs were identified within the soils in the vicinity of the former transformers. Based on these results, the absence of significant soil vapors, and given the shallow depth of the subsurface utility lines (less than 5' bgs, which is above the contaminated groundwater table), it is not suspected that the subsurface utilities will act as a preferential pathway for contaminant migration.

5.2 Groundwater

Based on the results of this Investigation, there is a chlorinated VOC contaminated groundwater plume containing levels of 1,1,1 TCA, TCE and cis-1,2, DCE above their respective GQSs beneath the Subject. The area of highest contamination appears to be located on the north-central portion of the site. No SVOC contamination in excess of the GQSs was detected on-site. Additionally, minor metals contamination was detected within the Subject's groundwater. Specifically, aluminum, antinomy, cobalt, iron and manganese were detected above their respective GQSs. With the exception of manganese, the metals were detected at concentrations of less than one order of magnitude above their respective GQS. Further, the pH of the Subject's groundwater was found to be slightly lower than its NYSDEC GQS range standard for ten of the twelve groundwater samples collected.

5.3 Geophysical Survey

No anomalies were detected around the perimeter of the abandoned residential structure. In addition, the field investigation revealed the presence of a natural gas fired boiler within the basement of the building. Further, no fill or vent pipes were noted on or around the structure. As such, it is not suspected that an UST is present in the vicinity of the residential structure.

5.4 UST Assessment

An out-of-service UST is located adjacent to the boiler building. The tank was found to contain approximately 3' of liquid, primarily water, although a slight odor and sheen was noted. No visually impacted soil was noted during test pit or soil boring activities in the area. Soil and groundwater samples collected from the area indicated no detectable levels of petroleum contamination were found in the vicinity of the UST. As such, this tank is not suspected to have had a significant negative environmental impact upon the Subject.

5.0 VOLUNTARY INVESTIGATION SUMMARY AND CONCLUSIONS- continued

5.5 Interior Sump/ Wastewater Discharge

A sump identified during the walkthrough of the building was found to contain high concentrations of 1,1-DCA and 1,1,1-TCA. IVI estimates the volume of liquid/ sludge within this sump to be approximately 5-gallons. Based on conversations with representatives of the City of Port Jervis Department of Public Works and the prospective property developer, there are no subsurface disposal systems on-site, and all wastewater is discharged to the municipal system. This fact was further confirmed by direct observation of a wastewater pumping station located on the southern portion of the Subject.

6.0 RECOMMENDATIONS AND REMEDIAL ACTION SELECTION

6.1 Recommendations

Based on the results of this investigation, IVI has the following recommendations regarding the Subject.

- IVI recommends that the site be capped with a sufficient quantity of clean fill to reduce the exposure potential of the identified soil contamination;
- In accordance with requirements of 6 NYCRR Part 613, the out-of-service UST must be removed. As such, prior to the placement of the clean fill cap, the out-of-service UST should be removed in accordance with NYSDEC protocols;
- The liquid/sludge should be removed from the interior sump and be properly disposed of;
- Inasmuch as the concrete block of the existing structure is to be utilized for on-site fill, IVI recommends that this material be tested for lead paint, prior to its incorporation in the fill material; and finally,
- Based on the results of this Investigation, the Subject's groundwater requires remediation. A proven remedial option for the identified chlorinated VOCs is in-situ physical bio-chemical remediation. This technology is based on the introduction of chemical oxidants into contaminated groundwater to destroy the contaminants and convert them to carbon dioxide, water, and other natural elements. Usually, the oxidants applied in this process are hydrogen peroxide, potassium permanganate, and/or ozone. The most common applications are based on Fenton's Reaction whereby hydrogen peroxide is applied with an iron catalyst creating a hydroxyl free radical. The hydroxyl free radical is capable of oxidizing complex organic compounds. Residual hydrogen peroxide decomposes into water and oxygen in the subsurface, and any remaining iron precipitates out of solution.

6.2 Remedial Action Selection

6.2.1. Analysis of Selected Remedial Technology

The In-Situ Physical Bio-Chemical Remediation, Soil Capping, and UST removal were thoroughly evaluated for performance of remediation at the Subject and were selected as the preferred remedial approach based upon consideration of six criteria specified in 6NYCRR Part 375-1.10(c), including the following items: 1) Compliance with Standards, Criteria and Guidance (SCGs), 2) Overall Protection of Human Health and the Environment, 3) Short Term Effectiveness and Permanence, 4) Long Term Effectiveness and Permanence, 5) Reduction of Toxicity, Mobility and Volume through Treatment, and 6) Feasibility/ Implementability. Each of these items and consideration offered on their behalf is discussed below.

6.0 RECOMMENDATIONS AND REMEDIAL ACTION SELECTION- continued

6.2.2 Compliance with SCGs

The performance of In-Situ Physical Bio-Chemical Remediation will allow the Subject to meet the remedial goal of 500 ppb of total chlorinated VOCs in groundwater, established by the NYSDEC in the April 6, 2001 Comment Letter. Standards relating to air discharges do not apply due to the absence of air effluent during the performance of In-Situ Physical Bio-Chemical Remediation. Inasmuch as the existing on-site UST is inactive and will not be utilized upon redevelopment, it will be removed in accordance with 6NYCRR Section 613.

6.2.3 Protection of Human Health and the Environment

Based on investigations conducted at the Subject by IVI the chlorinated VOC contaminated groundwater plume identified on the Subject has migrated off-site, towards the adjoining cemetery. (Refer to Figure 3 of this VIR/RAW.) Groundwater beneath the Subject and the adjoining cemetery, exhibiting chlorinated VOC contamination will be remediated, significantly reducing any potential impact to human health or the environment. Construction of the proposed soil cap will reduce the exposure potential to the minor concentrations of soil contamination and to the contaminated groundwater. Removal of the UST will prevent the tank from acting as a source of potential contamination.

6.2.4 Short Term Effectiveness

In-Situ Physical Bio-Chemical Remediation will immediately reduce VOC contamination in groundwater at the Subject. Additionally, the proposed soil cap will immediately reduce the potential for exposure to contaminated soil and groundwater. Further, removal of the UST will immediately remove a potential contaminant source.

6.2.5 Long Term Effectiveness

As the Remediation proceeds, concentrations of VOCs in groundwater will continue to decrease. The removal of the dissolved VOCs from groundwater is permanent. Further, provided the soil cap remains undisturbed, it will provide long term protection. This can be ensured through the issuance of a deed restriction, prohibiting uncontrolled excavation of the soil. Finally, removal of the UST will provide a permanent remedy to prevent the tank from acting as a source of potential contamination.

6.0 RECOMMENDATIONS AND REMEDIAL ACTION SELECTION- continued

6.2.6 Reduction of Toxicity, Mobility and Volume Through Treatment

Implementation of In-Situ Physical Bio-Chemical Remediation at the Subject will result in a significant reduction of groundwater contamination at the Subject. Concentrations of total dissolved VOCs remaining in groundwater will be reduced to below 500 ppb resulting in reduced toxicity and a reduced volume of contamination. Additionally, the redevelopment of the site, over the soil cap, with buildings and paved areas will reduce the amount of water percolating through the soils to the groundwater. The removal of the UST and contaminated soil, if any, will eliminate the concern of contamination toxicity, mobility, and volume related to the UST.

6.2.7 Feasibility/Implementablility

In-Situ Physical Bio-Chemical Remediation is a proven remedial option for the identified chlorinated VOCs. This technology is based on the introduction of chemical oxidants into contaminated groundwater to destroy the contaminants and convert them to carbon dioxide, water, and other natural elements. Usually, the oxidants applied in this process are hydrogen peroxide, potassium permanganate, and/or ozone. The most common applications are based on Fenton's Reaction, whereby hydrogen peroxide is applied with an iron catalyst creating a hydroxyl free radical. The hydroxyl free radical is capable of oxidizing complex organic compounds. Residual hydrogen peroxide decomposes into water and oxygen in the subsurface, and any remaining iron precipitates out of solution. Implementation of In-Situ Physical Bio-Chemical Remediation will require a significant amount of technical experience for implementation. Injection of the oxidation mixture and biological co-metabolite to the injection wells will be performed by individuals with the proper training.

Construction of the soil cap is feasible and can be quite readily implemented during the redevelopment of the site. The proposed soil cap will be composed of certified clean fill placed across the site in 1' lifts to a minimum elevation of 1' above the 100 year flood plain. This will result in a cap ranging in approximate thickness between 4' to 7'. The fill will be comprised of a mixture of Item 4, Bank run, and crushed concrete block from building demolition. All recycled building materials will be analyzed for lead content prior reuse. No on-site constraints prevent removal of the UST, and the UST will be easily removed by a licensed and OSHA-certified Tank Removal Contractor.

Full Remedial Design is required if proposed remedy includes ① treatment systems where performance is dependant on proper specification of sizes, capacities, process control etc

7.0 REMEDIAL ACTION WORKPLAN

The objectives of this Remediation are 1) to develop a clean fill cap over the Subject to minimize potential exposure to identified on-site contamination; 2) to properly remove the out-of-service on-site UST; 3) to remediate chlorinated VOC contaminated groundwater at the Subject using an in-situ physical bio-chemical remediation technology; 4) to reduce chlorinated VOC contamination in the source area to levels below 500 ppb as directed by the NYSDEC; and 5) to conduct a monitoring program to verify the continuing attenuation of chlorinated VOC groundwater concentrations following the completion of remedial activities. The scope and design of this Remedial Action Plan was developed based on the results of all previous environmental site assessments and investigations conducted on the Subject by IVI, previous environmental consultants, conversations with the prospective developer and the NYSDEC.

The following tasks will be performed as part of this Remedial Action Plan: 1) the construction of a soil cap of clean fill to minimize exposure potential; 2) the removal of the out-of-service UST; 3) the installation of monitoring wells to further delineate the chlorinated VOC contaminated groundwater plume; 4) the installation of in-situ physical bio-chemical remediation injection points; 5) full scale in-situ remediation; 6) a monitoring well and injection point survey; 7) performance of post-remediation groundwater sampling; and 8) preparation of a Remedial Action Report following the completion of the monitoring program, which summarizes the overall findings of this program.

A summary of each of the above-referenced tasks is presented below. Additionally, the waste management practices to be employed and QA/QC procedures to be used during this remedial action are included in this section. Of note, based upon the results of the additional lateral and vertical contaminant delineation discussed below, IVI will modify this RAW to provide a more comprehensive remedial design plan.

7.1 Soil Cap Remedial Action Plan

A soil cap comprised of certified clean fill will be placed across the site in 1' lifts to a minimum elevation of 1' above the 100 year flood plain. This will result in a cap ranging in approximate thickness between 4' to 7'. The fill will be composed of a mixture of Item 4, Bank run, and crushed concrete block from building demolition. As previously discussed, all recycled building materials will be analyzed for lead content prior reuse. If material containing LBP is used as fill, it will be buried at least 4 feet below grade, and it will be tested to ensure it will not act as a source of groundwater contamination.

7.2 Underground Storage Tank Remedial Action Plan

IVI will excavate the soils from the top of the tank to facilitate cleaning of the tank. Upon uncovering the UST, IVI will cut an access manhole in the top of the UST and pump remaining liquids and sludges from the UST for recycling and disposal, respectively. The UST will then be purged to render it free of petroleum vapors and will be monitored continuously using a combustible gas indicator to ensure that vapor concentrations remain less than 15 percent of the lower explosion limit.

7.0 REMEDIAL ACTION PLAN - continued

Following purging, the UST interior will be cleaned by a professional trained in accordance with the Occupational Safety and Health Administration (OSHA) standards in 29 CFR Part 1910 Subparts I and Z. Additionally, this person will also have at least eight hours of field training, annual refresher course training, and Confined Space Entry Certification. In case of an oxygen deficiency within an UST atmosphere (oxygen concentration of less than 19.5 percent), a positive pressure, air-supplied respirator and level "B" personal protective equipment will be utilized by the professional performing tank cleaning operations.

During cleaning operations, all liquid and sludge from the UST and connecting lines will be removed and disposed of in accordance with all U.S. Environmental Protection Agency (EPA) and NYSDEC requirements. All connecting lines will then be securely capped or plugged. Following removal of the UST, an opening will be cut in one end of each UST rendering it unusable, as required. The UST will then be loaded on a flat bed truck and sent to a scrap metal facility for recovery. The tank removal contractor will be responsible for complying with all of the provisions of the OSHA Hazardous Waste Operations and Emergency Response Rules as outlined in 29 CFR Part 1910.120, which includes preparing a site-specific Health and Safety Plan.

Subsequent to the removal of the UST, IVI proposes to excavate all contaminated soils, if any, remaining in the open tank excavation and from beneath the tank's feed and return lines. IVI will screen soils during the excavation activities with a PID to determine whether any contaminated soil remains in the excavation. When no evidence of contamination can be detected in any of the soil remaining in the excavation or when 500 tons of contaminated soil has been removed (whichever occurs first), IVI will discontinue excavation activities and conduct a site assessment in accordance with NYSDEC guidelines and protocols. All post-excavation samples will be compared to TAGM 4046 guidelines. All excavated contaminated soil, if any, will be stockpiled on-site completely enclosed in two layers of a 6 mil polyethylene bermed liner until proper characterization of the soil can be performed for disposal purposes.

7.3 In-Situ Physical Bio-Chemical Remedial Action Plan

7.3.1 Plume Delineation

revised maps of plume

Upon completion of the demolition of the existing structures, IVI will install up to eight borings on the Subject using Geoprobe equipment to delineate the lateral and vertical extent of the chlorinated VOC-contaminated groundwater plume, along with the characterization of the associated stratigraphy. The borings will be advanced from the ground surface to a depth of approximately 10' to 25' below the soil/groundwater interface. Groundwater samples will be collected from each boring at a discrete interval using hydropunch-type equipment. Each groundwater sample will be analyzed for VOC-related compounds using an on-site mobile laboratory. IVI will utilize the mobile laboratory results to optimize the placement of permanent monitoring wells.

7.0 REMEDIAL ACTION PLAN - continued

monitoring wells

IVI will the install up to 6 overburden monitoring wells on the Subject to confirm the extent of the chlorinated VOC contamination and for post remediation monitoring. The well borings will be advanced from the ground surface to an appropriate depth below the soil/groundwater interface utilizing a truck-mounted hollow-stem auger drill rig.

Monitoring wells will be screened from a depth of 5' above the soil/groundwater interface to the bottom of the well. Screen slot size and well packing material will be determined based on the geological observations of the soil samples collected during the advancement of the Geoprobe and monitoring well borings. Each well will be constructed using 2" diameter, Schedule 40 PVC screen and riser with a flush mounted cover and lockable casing. Well installation will be conducted in conformance with good engineering and customary practice. An engineer/geologist representing IVI will be on-site at all times to supervise well installations, screen and collect soil samples (as necessary), and prepare boring logs and well installation details.

Each monitoring well will be developed following installation and allowing sufficient time for the grout in the annular spaces of the well to cure (approximately 24 hours). Development will involve the removal and surging of groundwater in each well. A minimum of five well volumes will be removed from each well during the development process. Following this removal, development water will be screened for water quality parameters using a water quality analyzer. Development in each well will continue until water quality parameters such as dissolved oxygen DO, pH, conductivity, and temperature have stabilized (successive readings between well volume purges are within ten percent). The purpose of the well development is to eliminate all fine material from the area of the well screen and allow for the collection of a groundwater sample which is free of suspended materials and representative of the aquifer conditions.

gw flow maps

Following installation of the wells, IVI will have the well locations surveyed to an accuracy of one-tenth of a second of latitude and longitude. Additionally, IVI will survey the elevations of the top of the casings of each of these wells to the nearest hundredth (.01) foot. After development and prior to collecting groundwater samples, IVI will measure the static groundwater elevation in each of the wells. These results will be used to prepare a groundwater contour map indicating the direction of groundwater flow and hydraulic gradient across the site.

Following development of the monitoring wells, IVI will purge the newly installed wells of three to five well volumes to obtain groundwater samples that are representative of the aquifer conditions.

permits required for injection?

options

① potassium permanganate
② hydrogen peroxide - Fentons → heat pressure
③ ozone injection

7.0 REMEDIAL ACTION PLAN - continued

IVI will collect water quality parameter readings including dissolved oxygen DO, pH, conductivity, and temperature, prior to purging, and following the second and all subsequent well volume purges. Purging will continue until successive readings are within ten percent.

Groundwater samples will be transferred to appropriate sample containers, packed on ice in a cooler, and sent for analysis to a certified laboratory. Samples will be analyzed for VOCs in accordance with NYS ASP 95-1. The groundwater sampling results will be tabulated and isopleth concentration maps will be prepared for contaminants exceeding applicable NYSDEC GQSs using Surfer contouring software to finalize proper injection point locations.

7.3.2 Injection Point Installation

IVI will advance approximately five 2" inside diameter (I.D.) injection points in to the water table, within the 500 ppb total chlorinated VOCs contour area, as shown on Figure 4, in Appendix A. These injection points will be advanced using a pneumatic hammer to appropriate depths. Following advancement of the injection points, their respective drive points will be dislodged to allow for the transfer of reagents associated with the in-situ physical bio-chemical remediation process into the groundwater and saturated zone soils. A typical injection point construction detail is shown on Figure 5 in Appendix A.

7.3.3 Full Scale In-Situ Remediation

The full scale in-situ remediation will consist of a site-specific in-situ physical bio-chemical system. The in-situ physical bio-chemical remediation (Remediation) process will consist of the application of physical, chemical, and biological methods to the Subject's chlorinated VOC contaminated groundwater. These methods will be applied to degrade the chlorinated VOC contamination in the groundwater into carbon dioxide and water. Specifically, the in-situ physical bio-chemical remediation process consists of the following three stages: 1) a physical method to enhance the disbursement of chemical reagents into the contaminated area; 2) a chemical method involving the injection of an oxidation mixture to degrade chlorinated VOC contaminants; and 3) a biological method including the injection of a biodegradable co-metabolite solution which, serves to create an anaerobic environment, to complete the degradation process and to restore subsurface conditions. These stages will be applied through the injection points discussed above.

Total VOCs, air and water quality parameters, combustible gas indicator parameters, and groundwater elevation will be analyzed in the soil vapor and groundwater in surrounding monitoring wells periodically throughout the course of the oxidation stage using field analytical equipment to monitor the real time progress of the remediation and ensure the remedial goals are achieved.

7.0 REMEDIAL ACTION PLAN - continued

7.3.4 Injection Point Survey

Following installation of the injection points, IVI will have the point locations surveyed. Additionally, IVI will survey the elevations of the top of the casings of each of these points.

7.3.5 Monitoring Confirmation Sampling Plan

IVI will collect groundwater samples from all monitoring wells and all injection points installed during remediation activities during four post remediation groundwater sampling events. The first sampling event will be scheduled at least two weeks following the completion of remedial activities.

Prior to purging the wells, the static water level in each well will be measured to the nearest hundredth of a foot using an electronic water level indicator. Purging will be performed using dedicated polyethylene bailers or HDPE tubing, dedicated check valves, and a submersible or peristaltic pump. IVI will collect water quality parameter readings, including DO, pH, conductivity, and temperature, prior to purging, and following the second and all subsequent well volume purges. Purging will continue until successive readings are within ten percent to ensure that groundwater samples obtained are representative of groundwater conditions. A minimum of three well volumes will be removed from each well during purging activities.

Samples will be transferred into 40 ml glass vials in such a way that no air bubbles or head-space will be present. Following sample collection, the sample containers will be packed on ice in a cooler, sent for analysis to a certified laboratory, and analyzed for VOCs in accordance with NYS ASP 95-1. A cumulative summary of soil and contaminant-specific groundwater sampling results will be tabulated following each sampling event and concentration distribution maps will be prepared using Surfer contouring software.

Based on the results of the confirmation samples, additional injection of reagents may be necessary to address any residual contamination.

7.4 Community Air Monitoring Plan

IVI will conduct Community Air Monitoring during intrusive activities as required by the New York State Department of Health (NYSDOH) in accordance with NYSDOH Generic Community Air Monitoring Plan dated June, 2000. IVI will conduct real-time air monitoring, for VOCs and particulate levels at the perimeter of the work area according to the following plan:

7.0 REMEDIAL ACTION PLAN - continued

7.4.1 Volatile Organic Vapor Monitoring

VOCs will be monitored at the downwind perimeter of the work area on a continuous basis. All readings will be recorded and be available for NYSDEC and NYSDOH personnel to review. If total organic vapor levels exceed 5 ppm above background, work activities will be halted and monitoring will be continued under the provisions of the Vapor Emission Response Plan. If any organic levels greater than 5 ppm over background are identified 200 feet downwind from the work area or half the distance to the nearest residential or commercial property, whichever is less, all work activities will be halted.

If following the cessation of the work activities, or as the result of an emergency, organic levels persist above 5 ppm above background 200 feet downwind or half the distance to the nearest residential or commercial property from the work area, then the air quality will be monitored within 20 feet of the perimeter of the nearest residential or commercial structure (20 Foot Zone).

If efforts to abate the emission source are unsuccessful and if organic vapor levels are approaching 5 ppm above background persist for more than 30 minutes in the 20 Foot Zone, then the Major Vapor Emission Response Plan shall automatically be placed into effect;

However, the Major Vapor Emission Response Plan shall be immediately placed into effect if organic vapor levels are greater than 10 ppm above background.

7.4.1.1 Vapor Emissions Response Plan

If the ambient air concentration of organic vapors exceeds 5 ppm above background at the perimeter of the work area, activities will be halted and monitoring continued. If the organic vapor level decreases below 5 ppm above background, work activities will resume. If the organic vapor levels are greater than 5 ppm over background but less than 25 ppm over background at the perimeter of the work area, activities will resume, provided the organic vapor level 200 feet downwind of the work area or half the distance to the nearest residential or commercial structure, whichever is less, is below 5 ppm over background.

If the organic vapor level is above 25 ppm at the perimeter of the work area, activities will be shutdown. When work shutdown occurs, downwind air monitoring as directed by the Safety Officer will be implemented to ensure that vapor emission does not impact the nearest residential or commercial structure at levels exceeding those specified in the Major Vapor Emission section.

7.0 REMEDIAL ACTION PLAN - continued

7.4.1.2 Major Vapor Emission Plan

Upon activation, the following activities will be undertaken:

1. All Emergency Response Contacts as listed in the Health and Safety Plan of the Workplan will be notified.

2. The local police authorities will immediately be contacted by the Safety Officer and advised of the situation.

3. Frequent air monitoring will be conducted at 30 minutes intervals within the 20 Foot Zone. If two successive readings below action levels are measured, air monitoring may be halted or modified by the Safety Officer.

7.4.2 Particulate Vapor Monitoring

Particulates will be continuously monitored upwind and downwind of the work area at temporary particulate monitoring stations. If the downwind particulate level is 150 $\mu g/m^3$ greater than the upwind particulate level, then dust suppression techniques must be employed. All readings will be recorded and be available for NYSDEC and NYSDOH personnel to review.

7.5 Waste Management

The following wastes will be generated as part of this Remediation: 1) purge water; 2) decontamination water; and 3) disposable sampling equipment.

7.5.1 Groundwater

Purge water from monitoring wells sampled within the chlorinated VOC contaminated plume will be transferred into DOT-approved 55-gallon labeled drums and stored on-site until groundwater samples are analyzed.

The label will include a description and source of the contents of each drum. Based on the groundwater sampling results, the drummed water will be disposed of in accordance with all applicable regulations.

7.5.2 Decontamination Water

Wastewater generated from the cleaning of probing and injection equipment and field screening equipment, such as the water quality analyzer and electronic water level indicator will be collected and transferred into DOT-approved 55-gallon labeled drums.

7.0 REMEDIAL ACTION PLAN - continued

The drums will be stored on-site until groundwater samples are analyzed. The label will include a description and source of the contents of each drum. Based on the sampling results, the drummed wastewater will be disposed of in accordance with all applicable regulations.

7.5.3 Disposable Sampling Equipment

All disposable sampling equipment, including latex gloves and disposable bailers, will be collected and sealed in plastic trash bags, and stored on-site until groundwater samples are analyzed. The label will include a description and source of the contents of each bag. Based on the sampling results, the bagged sampling equipment will be disposed of in accordance with all applicable regulations.

8.0 QUALITY ASSURANCE PROJECT PLAN

QA/QC procedures will be used to provide performance information with regard to accuracy, precision, sensitivity, representativeness, completeness, and comparability associated with the sampling and analysis activities to be conducted as part of this Remediation. Field QA/QC procedures will be used to ensure that samples collected are representative of the actual conditions of the Subject and do not contain contaminants introduced either from the field activities or from sample transit. Laboratory QA/QC procedures and analyses will be used to demonstrate whether analytical results have been biased either by interfering compounds present in the sample matrix or by laboratory techniques that may have introduced systematic or random errors to the analytical process. In accordance with the Quality Assurance Guidelines for the Voluntary Cleanup Program, analytical data will be evaluated according to the Division of Environmental Remediation (DER) Data Usability Summary Report (DUSR) guidelines. A summary of the field and laboratory QA/QC procedures to be followed as part of this remediation is given below.

8.1 Field QA/QC

Field QA/QC will include the following procedures: 1) calibration of field equipment; 2) the collection of trip, matrix duplicate, and field blank samples; 3) the use of dedicated and disposable field sampling equipment; 4) proper sample handling and preservation; 5) proper sample custody; and 6) the completion of report logs. A description of each of these procedures is provided below.

8.1.1 Calibration of Field Equipment

All field analytical equipment used, including the water quality analyzer, will be calibrated in the field on a daily basis.

8.1.2 Collection of Field QA/QC Samples

Trip blanks will be prepared by the certified laboratory with deionized laboratory-grade water, and one blank will accompany all sample shipments to the laboratory. The water used will be from the same source as that used for the laboratory method blank. The trip blank will be handled and transported in the same manner as the samples collected which it will accompany. Trip blanks will be analyzed for VOCs in accordance with NYS ASP 95-1 to identify the presence of cross-contamination as a result of sample shipment, for example, contaminated from the air, shipping containers, or from other items coming into contact with the sample bottles.

Field blanks will be prepared to ensure that samples collected were representative of the actual condition of the Subject and do not contain contaminants introduced from the field activities.

8.0 QUALITY ASSURANCE PROJECT PLAN - continued

Specifically, one field blank will be collected per day by filling a clean bailer with deionized water, then pouring this water from the bailer into 40 ml VOA vials until full, the bottles' tops will be screwed on tightly, and the vial turned upside down to ensure that no air bubbles were trapped inside. Field blanks will be analyzed for TCL VOCs in accordance with NYS ASP 95-1.

Matrix duplicate samples will be collected at a frequency of 5 percent of all samples collected. Aqueous matrix duplicates will be obtained by collecting two successive samples from the same location. Duplicate samples will be analyzed for VOCs in accordance with NYS ASP-1 to provide a measure of sample homogeneity and intralaboratory precision of the entire analytical process.

8.1.3 Use of Dedicated and Disposable Field Sampling Equipment

Dedicated polyethylene bailers or HDPE tubing and check valves will be used in all monitoring wells to eliminate the possibility of cross-contamination during groundwater sampling activities.

Disposable sampling equipment, including latex gloves and disposable bailers, will be used to prevent cross-contamination between samples. Field screening equipment, such as the water quality analyzer probe, will be decontaminated after each sample by washing it with laboratory-grade Alconox detergent and deionized water, and thoroughly air-drying equipment.

8.1.4 Sample Handling and Preservation

For each sample, a sufficient volume will be collected to allow the specified analytical method to be performed according to protocol, and to provide sufficient sample for reanalysis if necessary. Because plasticizers and other organic compounds inherent in plastic containers may contaminate samples requiring organic analysis, samples will be collected in glass containers.

Appropriate sample preservation techniques, including cold temperature storage at 4° C, will be utilized to ensure that the VOCs in the samples analyzed by the laboratory have not changed from the time the sample was collected in the field.

Samples will be analyzed prior to the holding time for VOCs to ensure the integrity of the analytical results.

Samples collected for VOC analysis will be bottled with zero headspace to prevent premature loss of VOCs from diffusion into existing airspace above the samples. This will be accomplished by filling VOC vials used to collect aqueous samples till groundwater overflows the top of the vial, screwing the cap on tightly, and turning the vial upside down to ensure that no air bubbles are trapped inside.

8.0 QUALITY ASSURANCE PROJECT PLAN - continued

8.1.5 Sample Custody

Sample handling in the field will conform to appropriate sample custody procedures. Field custody procedures include proper sample identification, chain-of-custody forms, and packaging and shipping procedures. Sample labels will be attached to all sampling bottles before field activities begin to ensure proper sample identification. Each label will identify the site and sample location.

Each cooler will be lined with two (2) 6-mil thick plastic bags. Styrofoam or bubble wrap will be used to absorb shock and prevent breakage of sample containers. VOC vials will be packaged inside a plastic "Ziplock" bag prior to placement inside the cooler. Ice or ice packs will be placed in between the plastic bags for sample preservation purposes.

After each sample is collected and appropriately identified, the following information will be entered onto the chain-of-custody form: 1) site name and address; 2) sampler(s)' name(s) and signature(s); (3) names and signatures of persons involved in the chain of possession of samples; 4) sample number; 5) number of containers; 6) sample location; 7) date and time of collection; 8) type of sample, sample matrix and analyses requested; 9) preservation used (if any); and 10) any pertinent field data collected (pH, temperature, conductivity, DO).

The sampler will sign and date the "Relinquished" blank space prior to removing one (1) copy of the custody form and sealing the remaining copies of the form in a Ziplock plastic bag taped to the underside of the sample cooler lid. After sample containers are sufficiently packed and the chain-of-custody form completed, the 6-mil plastic bags will be sealed around the samples by twisting the top and securely taping the bag closed to prevent leakage. A sample custody seal will be placed around the neck of the bag which will include the signature of the project manager, and/or his/her designee, and the date.

The sample cooler will be sealed with tape prior to delivery or shipment to the certified laboratory. Additionally, sample custody seals will be placed around the cooler lid to detect unauthorized tampering with samples following collection and prior to the time of analysis. The seals will be attached in such a way that it will be necessary to break them in order to open the container. Seals will be affixed at the time of sample packaging and will include the signature of the project manager and/or his/her designee and the date.

Samples sent to the certified laboratory by overnight carrier will be packaged and labeled for shipment in compliance with current U.S. Department of Transportation (DOT) and International Air Transport Association (IATA) dangerous goods regulations, as well as any additional requirements stipulated by the courier.

8.0 QUALITY ASSURANCE PROJECT PLAN - continued

8.1.6 Report Logs

The following project logs will be completed during the course of this Remediation: 1) field logs; and 2) monitoring well purging and sampling data logs. A field log will be completed on a daily basis which will describe all field activities including: 1) project number, name, manager, and address; 2) date; 3) weather; 4) attendees on-site and associated affiliations; 5) description of field activities; and 6) all pertinent sample collection information including sample identification numbers, description of samples, location of sampling points, number of samples taken, method of sample collection and any factors that may affect its quality, time of sample collection, name of collector, and field screening results.

A monitoring well purging and sampling data log will be completed following purging and sampling of each monitoring well. For purging and sampling activities, the following information will be recorded: 1) project number, name, manager, and location; 2) monitoring well number; 3) well casing diameter and stick-up height; 4) depth of well from top of well casing and roadbox; 5) date; 6) time; 7) water analyzer used; 8) distance from top of well casing to water and free product; and 9) the pH, temperature, conductivity, and dissolved oxygen content associated with each monitored well volume removed.

8.2 Laboratory QA/QC

A CLP-certified laboratory, will be used for all sample analyses to be performed as part of this Remediation. This laboratory will follow all applicable NYSDEC analytical laboratory QA/QC protocols. Additionally, a description of the Sample Custody Procedures that will be followed is provided below.

8.2.1 Sample Custody

All samples will be delivered to the laboratory via an overnight courier. Samples will be received by laboratory personnel whom will inspect the sample cooler(s) to check the integrity of the custody seals. The cooler(s) will then be opened the samples unpacked and the information on the chain-of-custody form examined. If the samples shipped match those described on the chain-of-custody form, the laboratory sample custodian will sign and date the form on the next "Received" blank and assume responsibility for the samples. If problems are noted with the sample shipment, the laboratory custodian will sign the form and record problems in the "Remarks" box. The custodian will then immediately notify the Project Manager so appropriate follow-up steps can be implemented on a timely basis.

8.0 QUALITY ASSURANCE PROJECT PLAN - continued

All samples will then be logged into a sample log book and/or computerized information system. The following information will be recorded: 1) date and time of sample receipt; 2) project number; 3) field sample number; 4) laboratory sample number (assigned during log-in procedure); 5) sample matrix; 6) sample analytical parameters; 7) storage location; and 8) log-in person's initials.

A record of the information detailing the handling of a particular sample through each stage of analysis will be provided by the completion of a laboratory chronicle form. The following information will be included on this form: 1) job reference; 2) sample matrix; 3) sample number; 4) date sampled; 5) date and time received by laboratory; 6) holding conditions; 7) analytical parameters; 8) extraction date, time and extractor's initials (if applicable), 9) analysis date, time, and analyst's initials, and 10) QA batch number, date reviewed, and reviewer's initials.

All information relevant to the samples will be secured at the end of each business day. All samples will be stored in a designated sample storage refrigerator, access to which will be limited to laboratory employees.

9.0 COMPLETION OF REMEDIAL ACTION

9.1 Remedial Action Report

Following the completion of the clean soil cap construction, UST removal, and receipt of the post-remediation groundwater analytical results, a report will be prepared which summarizes the findings of this Remediation. These findings will address the first four objectives of this Remediation, specifically: 1) to develop a clean soil cap over the Subject to minimize potential exposure to identified on-site contamination; 2) to properly remove the out-of-service UST; 3) to treat chlorinated VOC contaminated groundwater at the Subject with an in-situ physical bio-chemical remediation technology, and 4) to reduce chlorinated VOC contamination in the source area to levels below 500 ppb as directed by the NYSDEC. The results to be presented in this report will include: 1) final cap construction details; 2) post excavation UST grave samples; 3) the groundwater results from the post-remediation sampling event; and 4) contaminant-specific concentration distribution maps.

9.2 Future Use of Site

Following the completion of the remedial action activities, the Subject is to be developed with a senior housing complex and a commercial retail shopping center.

9.2.1 Institutional Controls

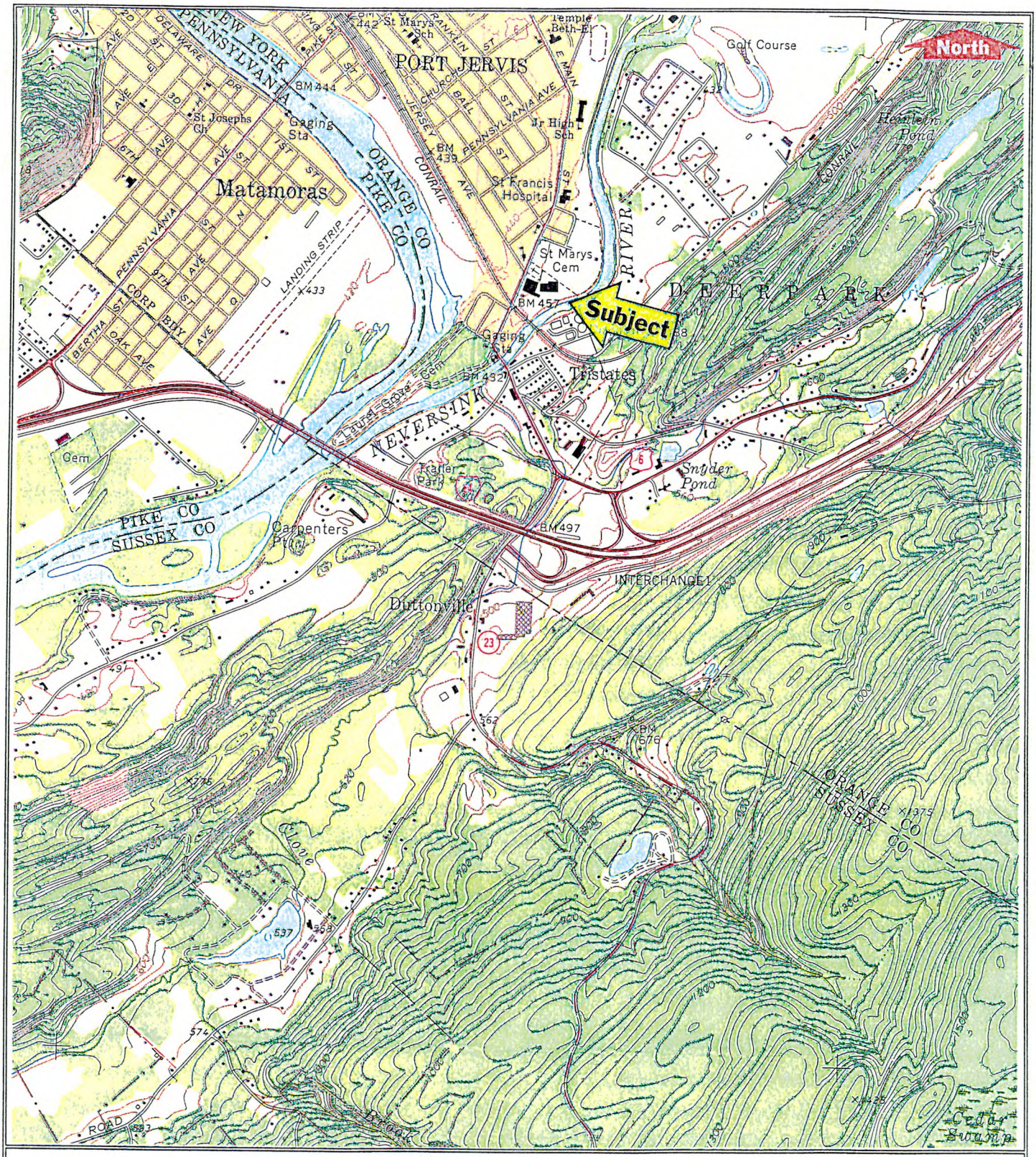
In accordance with the NYSDEC's request in an e-mail correspondence dated April 19, 2001, the following institutional controls in the form of deed restrictions will be implemented at the Subject:

- Inasmuch as groundwater contaminants above their respective NYSDEC GQS will remain on-site following remediation, a deed restriction preventing groundwater usage will be placed in effect.

- Further, a deed restriction regarding the soil cap will be placed in effect. This restriction will state that future excavation below 4 feet (the proposed minimum thickness of the soil cap), will require prior State approval of the methods and handling of soils for proper disposal.

10.0 SCHEDULE

A detailed project schedule of the remedial action activities, including investigation tasks, response actions, and post-remediation activities, will be prepared following the demolition of the existing on-site structures.



USGS Topographic Map

Source: 7.5' USGS Quadrangle *Port Jervis, NY-NJ-PA* Date: 1969 Photorevised: 1983	Water's Edge 200 East Main Street Port Jervis, New York IVI Project Number: E1015676	Date: 2/1/00 Scale: 1:24,000 Contour Interval: 10'

Legend

- Voluntary Investigation Boring Location
- Voluntary InvestigationTest Pit Location
- Previous Boring Advanced by IVI

Map based on Survey prepared by
Pietrzak & Pfau Engineering and Surveying, PLLC
dated March 15, 1998

Figure 2 - Sample Location Plan

Project Name: Waters Edge

Project Number: E1015676

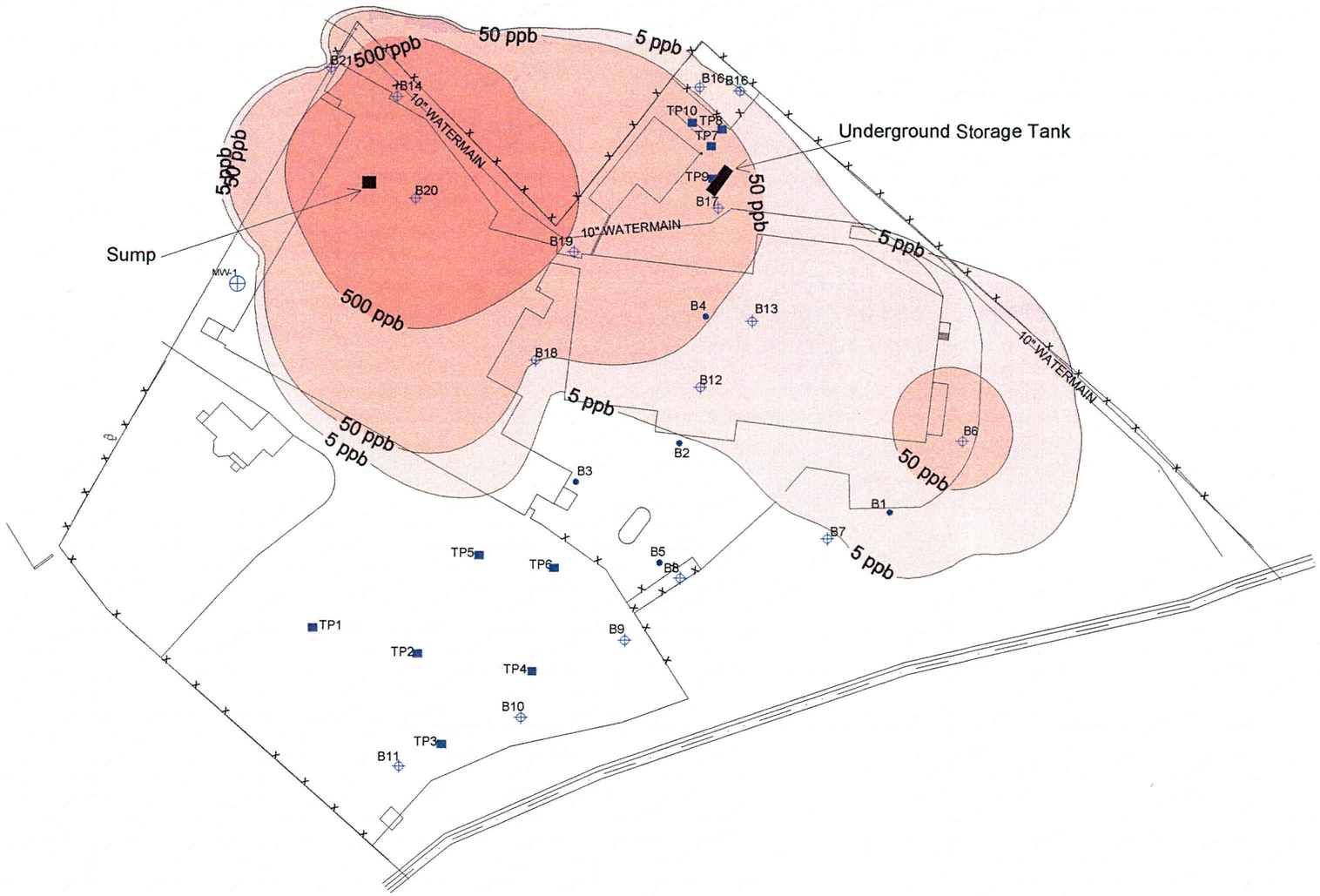
IVI Environmental Inc.
105 Corporate Park Drive
White Plains, NY 10604
(914) 694-9600 (tel)
(914) 694-3724 (fax)

Date: 3/13/01

Scale 1"= 100'

-100 0 50 100

(IN FEET)



Legend

- Monitoring Well Location
- 5 ppb Total CVOC Isopleth Line
- Test Pit Location
- Voluntary Investigation Boring Location
- Previous Boring Location

Figure 3 - Total Chlorinated Volatile Organic Compunds (CVOC) in Groundwater Isopleth Map

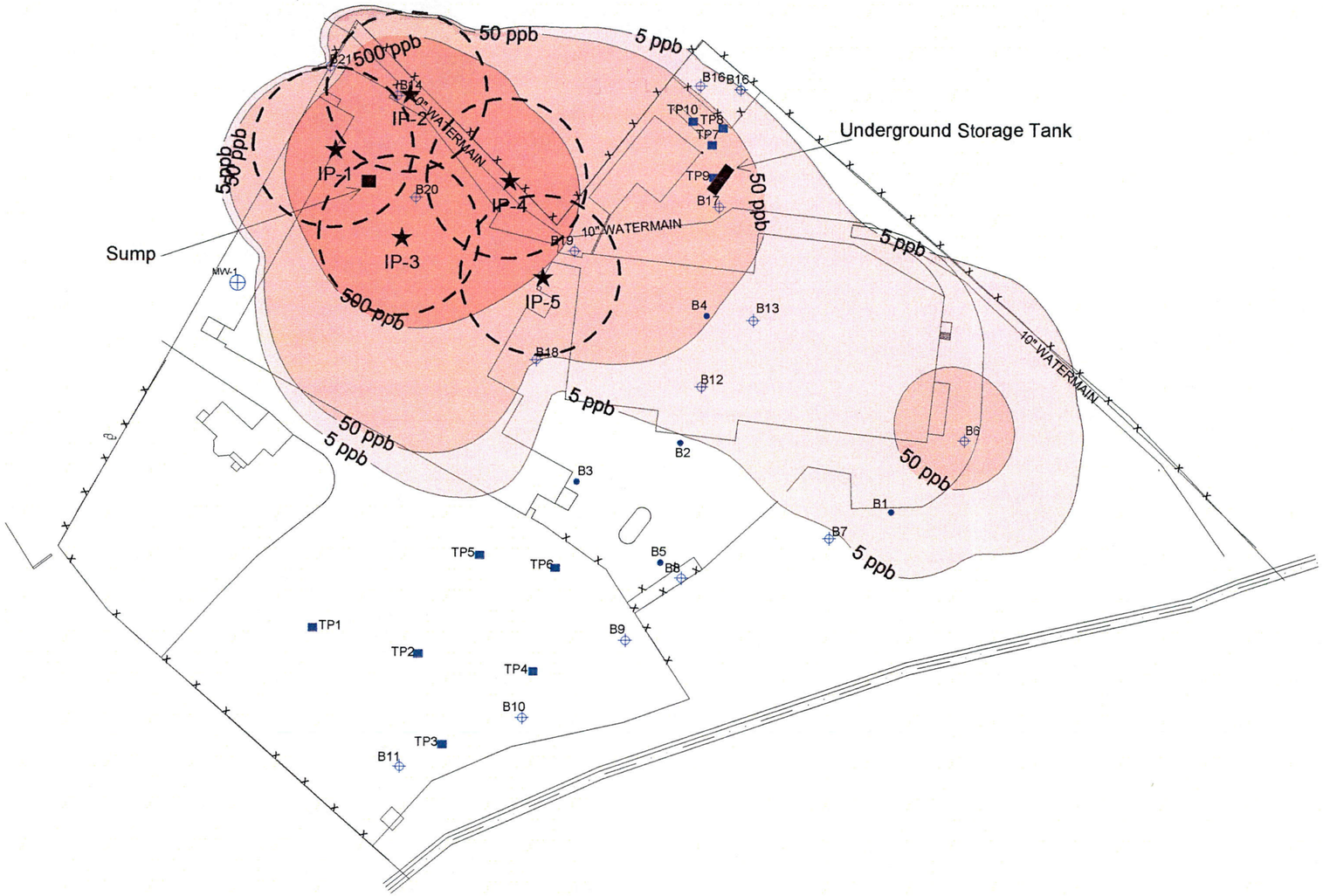
Project Name: Waters Edge
200 East Main Street
Port Jervis, New York

Project No.: E1015676

IVI Environmental, Inc.
105 Corporate Park Drive
White Plains, New York 10604
(914) 694-9600 (tel)
(914) 694-2903 (fax)

Scale: 1"=100'

0 100 200



N

Legend

- Proposed Injection Point
- 60' Injection Point Radius of Influence
- Monitoring Well Location
- 5 ppb Total CVOC Isopleth Line
- Test Pit Location
- Voluntary Investigation Boring Location
- Previous Boring Location

Figure 4 - Proposed In-Situ Remediation Injection Point Locations

Project Name: Waters Edge
200 East Main Street
Port Jervis, New York

Project No.: E1015676

IVI Environmental, Inc.
105 Corporate Park Drive
White Plains, New York 10604
(914) 694-9600 (tel)
(914) 694-2903 (fax)

Scale: 1"=100'

0 100 200

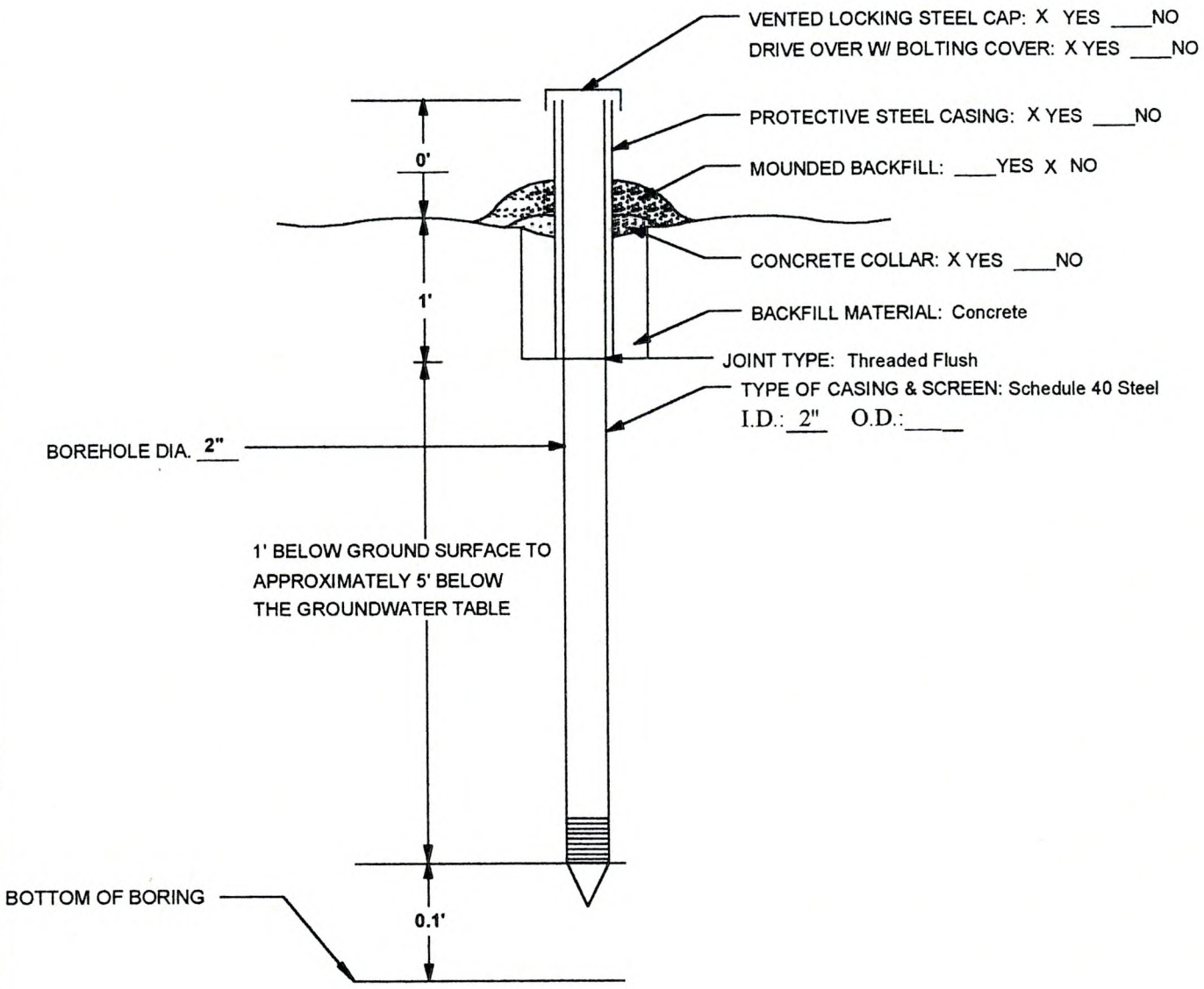


FIGURE 5 - INJECTION POINT CONSTRUCTION DETAILS

INJECTION POINT NO.: PROJECT NAME: Waters Edge	IVI ENVIRONMENTAL, INC. 105 CORPORATE PARK DRIVE WHITE PLAINS, NY 10604 (914) 694-9600(tel) (914) 694-1335(fax)	DATE INSTALLED:
IVI PROJECT NUMBER: E1015676		DRILLER:

Table 1
Summary of Laboratory Results for Soil Samples

Analytical Parameter/Constituent	Eastern USA Background Concentration	NYSDEC TAGM # 4046 RSCO	Sample Locations and Concentrations										
			TP-3	TP-4	TP-6	TP-7	TP-8	TP-9	B-6	B-7	B-8	B8-D	B-13
Semi-Volatile Organic Compounds (ug/kg)													
Napthalene	***	13,000	ND	81	ND	ND	ND	ND	ND	ND	ND	ND	ND
Flourene	***	50,000	ND	100	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenathrene	***	50,000	270	920	ND	ND	ND	ND	ND	ND	ND	62	ND
Acenaphthylene	***	41,000	43	130	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	***	50,000	52	170	ND	ND	ND	ND	ND	ND	ND	ND	ND
Flouranthene	***	50,000	450	1200	ND	ND	ND	ND	ND	ND	55	95	ND
Pyrene	***	50,000	410	1000	ND	ND	ND	ND	ND	ND	50	100	ND
Benzo(a)anthracene	***	224	210	**570**	ND	ND	ND	ND	ND	ND	ND	40	ND
Chrysene	***	400	270	**630**	ND	ND	ND	ND	ND	ND	ND	55	ND
Benzo(b)flouranthene	***	1,100	300	640	ND	ND	ND	ND	ND	ND	ND	65	ND
Benzo(k)flouranthene	***	1,100	110	410	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	***	61	**230**	**560**	ND	ND	ND	ND	ND	ND	ND	38	ND
Indeno(1,2,3-cd)pyrene	***	3,200	120	220	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(g,h,I)perylene	***	50,000	120	210	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	***	50,000	ND	89	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	***	6,200	ND	56	ND	NA	NA	NA	ND	ND	ND	ND	ND
Carbazole	***	NS	ND	120	ND	NA	NA	NA	ND	ND	ND	ND	ND
Di-n-butylphthalate	***	8,100	ND	ND	ND	NA	NA	NA	86	99	ND	ND	ND
Metals (mg/kg)													
Aluminum	33,000	SB	9890	NA	12000	NA	NA	NA	4390	4120	5050	3090	6,700
Antimony	***	SB	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND
Arsenic	3-12	7.5/SB	5.60	NA	4.10	NA	NA	NA	ND	ND	ND	ND	5.3
Barium	15-600	300/SB	117.0	NA	112.0	NA	NA	NA	16.2	21.2	17.4	32.3	24
Berylium	0-1.75	0.16/SB	**0.64**	NA	**0.81**	NA	NA	NA	0.15	0.16	**0.19**	**0.24**	**0.34**
Cadmium	0.1-1	10.000	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND
Calcium	130-350,000	SB	2140	NA	1780	NA	NA	NA	262	465	852	1180	813
Chromium	1.5-40	50.000	9.7	NA	11.1	NA	NA	NA	5.2	4.7	6.3	5.7	7.3
Cobalt	2.5-60	30/SB	6.8	NA	8.6	NA	NA	NA	3.1	2.9	3.6	2.9	6.3
Copper	1-50	25/SB	19.7	NA	10.1	NA	NA	NA	4.4	4.5	5.5	5.7	14.3
Iron	2,000-550,000	NS	15800	NA	17900	NA	NA	NA	6890	5930	7950	6140	12,600
Lead	400	SB	66.9	NA	14.6	NA	NA	NA	5.4	5.7	11.1	18.8	10.1
Magnesium	100-5,000	SB	23.2	NA	3000.0	NA	NA	NA	1690.0	1530.0	1910.0	936.0	2390
Manganeese	50-5,000	SB	811.0	NA	797.0	NA	NA	NA	102.0	94.2	139.0	271.0	410
Mercury	0.001-0.2	0.100	**0.33**	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND
Nickel	0.5-25	13/ SB	12.8	NA	**15.2**	NA	NA	NA	7.7	7.1	8.3	5.6	15.6
Potasium	8,500-43,000	SB	760	NA	1230	NA	NA	NA	525	513	731	306	750
Selenium	0.1-3.9	2/SB	1.2	NA	1.3	NA	NA	NA	ND	ND	1.2	ND	ND
Sodium	6,000-8,000	SB	118.0	NA	ND	NA	NA	NA	ND	ND	66.0	73.3	ND
Thallium	***	SB	1.5	NA	3.6	NA	NA	NA	ND	ND	ND	ND	ND
Vanadium	1-300	150 /SB	12.7	NA	11.5	NA	NA	NA	4.9	4.0	6.5	4.6	8.3
Zinc	9-50	20/ SB	**67.2**	NA	**57.2**	NA	NA	NA	**28.6**	**28.0**	**37.2**	**30.2**	**50.2**

Notes:

1. NYSDEC = New York State Department of Environmental Conservation.
2. TAGM = Technical Administrative Guidance Memorandum.
3. RSCO = Recommended Soil Cleanup Objective.
4. ND = Compound not detected.
5. NA = Sample not analyzed for this compound.
6. NS= No RSCO exists for this compound.
7. ***= No background level provided in TAGM 4046.
8. SB= Site Background.
9. Only constituents detected in at least one sample are shown.
10. Bolded results indicate an exceedance of NYSDEC TAGM RSCO.
11. SVOC Data in ug/kg, Metals Data in mg/kg.

K:\Projects\E1015676 Waters Edge Voluntary Investigation\Tables\[Table 1 - Soil.xls]Sheet1

Table 2
Summary of Groundwater Analytical Results for Volatile, Semi-Volatile Organic Compounds and pH

Analytical Parameter/Constituent	NYSDEC GQS (ppb)	Sample Locations and Concentrations															
		MW1	B-5	B-7	B-8	B-9	B-10	B-10D	B-11	B-12	B-13	B-14	B-17	B-18	B20	B21	Sump
Volatile Organic Compounds																	
1,1,1 Trichloroethane	5	ND	**80**	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND	**6,100**
Tetrachlorethylene	5	ND	5	1.7	1.5	ND	ND	ND	ND	5	ND	ND	NS	ND	**73**	3	ND
Trichloroethlyene	5	ND	4.7	ND	3.3	ND	ND	ND	ND	**17**	**12**	**2,700**	NS	**27**	**1,700**	**8**	ND
Acetone	----------	ND	ND	ND	ND	ND	26	17	ND	ND	ND	41	NS	ND	ND	ND	ND
2-Butanone	----------	ND	ND	ND	ND	ND	5.7	4	ND	ND	ND	ND	NS	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**9.1**	NS	ND	ND	ND	ND
1,1-Dicloroethane	----------	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND	**15,000**
Semi-Volatile Organic Compounds																	
Diethylphthalate	50	ND	ND	ND	ND	ND	1.6	ND	ND	1.9	ND	15	ND	2	NS	NS	NA
bis(2-ethylhexl)phthalate	5	1.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS	NA
Napthalene	10	ND	1.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS	NA
Flourene	----------	ND	1.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS	NA
Phenathrene	----------	ND	3.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS	NA
pH	6.5-8.5	**5.9**	**5.1**	**6.4**	**6.3**	**6.4**	**5.5**	**6.0**	**5.2**	7.6	7.1	**5.6**	NA	**7.3**	NS	NS	NA

Notes:
1. NYSDEC = New York State Department of Environmental Conservation.
2. GQS = Groundwater Quality Standard
3. ND = Compound was not detected.
4. NA = Sample was not analyzed for this compound.
5. Only constituents detected in at least one sample are shown.
6. -- = No GQS is available for this constituent.
7. Bolded results indicate an exceedance of NYSDEC GQS.
8. VOC and SVOC data in parts per billion (ppb), pH is unitless

Table 3
Summary of Groundwater Analytical Results for Filtered Metals

Analytical Parameter/Constituent	NYSDEC GQS (ppb)	Sample Location and Concentration					
Metals		**B-6**	**B-8**	**B-9**	**B-12**	**B-13**	**B-18**
Aluminum	100	27.3	**634**	78.8	48.2	74	44
Antimony	3	**11.4**	ND	**9.8**	ND	ND	ND
Arsenic	25	4.8	4.6	ND	6.8	ND	14.1
Barium	1,000	40.6	20.3	26.6	87.3	33.4	30.6
Berylium	3	0.14	ND	ND	ND	ND	ND
Cadmium	5	0.76	ND	ND	ND	ND	ND
Calcium	----------	73,100	39,900	75,100	108,000	77,500	40,000
Chromium	50	2.3	1.6	ND	ND	0.94	ND
Cobalt	5	**24.8**	2.0	2.6	**18.6**	**6.4**	**20.4**
Copper	200	ND	2.3	2.0	ND	4.3	3.6
Iron	300	**615.0**	**324**	ND	ND	45	61
Lead	25	ND	8.7	ND	ND	ND	ND
Magnesium	35,000	13900.0	5,400	9,810	14,700	6,720	2,750
Manganese	300	**1,390**	397	122	**6,150**	**3,040**	**4,680**
Mercury	1	ND	ND	ND	ND	ND	ND
Nickel	100	26.1	5.6	3.6	36.6	10.8	17.0
Potassium	----------	10,800	8,760	15,300	19,000	10,200	13,500
Selenium	10	ND	ND	ND	ND	ND	ND
Silver	50	ND	1.8	ND	ND	1.7	ND
Sodium	----------	46,000	32,800	64,900	58,700	17,700	49,500
Thallium	8	ND	ND	ND	ND	ND	ND
Vanadium	14	ND	2.0	ND	ND	ND	ND
Zinc	----------	33.2	26.6	11.7	40.8	13.3	18.3

Notes:

1. NYSDEC = New York State Department of Environmental Conservation.
2. GQS = Groundwater Quality Standard
3. ND = Compound was not detected.
4. -- = No GQS is available for this constituent.
5. Bolded results indicate an exceedance of NYSDEC GQS.
6. All results are in parts per billion (ppb).

Table 4

Summary of Total Chlorinated VOC Groundwater Contaminant Areas

Waters Edge

Port Jervis, New York

Total VOC concentration (ppb)	Area	
	Square Feet	Acres
> 5	177,509	4.43
> 50	107,546	2.68
> 500	39,933	0.99

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Boring Log

Project No.: E0115519

Project Name: Waters Edge

Project Manager: Chuck Mulligan

Total Depth: 16'

Water Table Depth: 15'

Date: 11/15/00

Location: Port Jervis, NY

Drilling Company: S2C2

Method Used: Geoprobe

Boring No.: B1

Depth (feet)	Sample No.	Sample Interval (feet)	Recovered (%)	Field Screening Result (ppm)	Soil Identification and Remarks (include color, composition, moisture, and visual and olfactory observations of contamination)
0-4			80	0	0-2' Black Topsoil
					2'-4' Brown F-M SAND
4-8			100	0	Brown F SAND
8-12			100	0	Brown F SAND
12-16	S1	13-15	100	0	12'-15' Brown F SAND
					15'-16' Grey F SAND, Wet at 15'

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Boring Log

Project No.: E0115519

Project Name: Waters Edge

Project Manager: Chuck Mulligan

Total Depth: 16'

Water Table Depth: 13'

Date: 11/15/00

Location: Port Jervis, NY

Drilling Company: S2C2

Method Used: Geoprobe

Boring No.: B2

Depth (feet)	Sample No.	Sample Interval (feet)	Recovered (%)	Field Screening Result (ppm)	Soil Identification and Remarks (include color, composition, moisture, and visual and olfactory observations of contamination)
0-4			90	0	0-6" Asphalt
					6"-3' Brown F-M SAND
					3'-4' Brown CLAY
4-8			90	0	Brown Clayey SILT
8-12			100	0	8'-11' Brown SILT
					11'-12' Brown F SAND, and Silt
12-16	S2	12-13	100	0	12'-13' Brown F SAND, and Silt
					13'-16' Grey F SAND, Wet at 13'

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Project No.: E0115519

Project Name: Waters Edge

Project Manager: Chuck Mulligan

Total Depth: 16'

Water Table Depth: 12'

Date: 11/15/00

Location: Port Jervis, NY

Drilling Company: S2C2

Method Used: Geoprobe

Boring No.: B3

Depth (feet)	Sample No.	Sample Interval (feet)	Recovered (%)	Field Screening Result (ppm)	Soil Identification and Remarks (include color, composition, moisture, and visual and olfactory observations of contamination)
0-4			20	0	0-6" Asphalt
					6"-4' Brown F SAND, some Silt
4-8			40	0	Brown SILT, some Sand
8-12	S3	11-12	50	0	Brown SILT
12-16			100	0	Brown SILT, Wet at 12'

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Project No.: E0115519

Project Name: Waters Edge

Project Manager: Chuck Mulligan

Total Depth: 19'

Water Table Depth: 17'

Date: 11/15/00

Location: Port Jervis, NY

Drilling Company: S2C2

Method Used: Geoprobe

Boring No.: B4

Depth (feet)	Sample No.	Sample Interval (feet)	Recovered (%)	Field Screening Result (ppm)	Soil Identification and Remarks (include color, composition, moisture, and visual and olfactory observations of contamination)
0-3					Sump
3-7			100	0	Brown F SAND, some Silt, very stony
7-11			100	0	7'-9.5' Brown Clayey SILT
					9.5'-11' Brown M-C SAND
11-15			100	0	Dark Brown M-C SAND
15-19	S4	16-17	100	0	Brown SILT, wet at 17'

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Boring Log

Project No.: E0115519

Project Name: Waters Edge

Project Manager: Chuck Mulligan

Total Depth: 16'

Water Table Depth: 15'

Date: 11/15/00

Location: Port Jervis, NY

Drilling Company: S2C2

Method Used: Geoprobe

Boring No.: B5

Depth (feet)	Sample No.	Sample Interval (feet)	Recovered (%)	Field Screening Result (ppm)	Soil Identification and Remarks (include color, composition, moisture, and visual and olfactory observations of contamination)
0-4			100	0	0-6" Asphalt
					6"-4' Brown F SAND, some Silt
4-8			100	0	Brown SILT, some Sand
8-12			100	0	Brown SILT
12-16	S5	14-15	100	0	Brown SILT, Wet at 15'

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Boring Log

Project No.: E1015676

Project Name: Waters Edge

Project Manager: Chuck Mulligan/ Pete Biolchini

Total Depth: 20'

Water Table Depth: 16.5'

Date: February 21, 2001

Location: Port Jervis, New York

Drilling Company: S2C2

Method Used: Geoprobe

Boring No.: B6

Depth (feet)	Sample No.	Sample Interval	Recovered %	Field Screening Result (ppm)	Soil Identification and Remarks (include color, composition, moisture, and visual and olfactory observations of contamination)
0-4			90	20	0-3 Asphalt and fill
					3-4 Brown SAND
4-8			100	30	Brown F- C SAND
8-12			100	50	Brown F-C SAND
12-16	B6	15-16	100	50	Brown SAND, and Silt
16-20			100		Grey SAND and, Silt, wet at 16.5

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Boring Log

Project No.: E1015676

Project Name: Waters Edge

Project Manager: Chuck Mulligan/ Pete Biolchini

Total Depth: 20'

Water Table Depth: 16'

Date: February 22, 2001

Location: Port Jervis, New York

Drilling Company: S2C2

Method Used: Geoprobe

Boring No.: B7

Depth (feet)	Sample No.	Sample Interval	Recovered %	Field Screening Result (ppm)	Soil Identification and Remarks (include color, composition, moisture, and visual and olfactory observations of contamination)
0-4			90	0	Top soil and fill
4-8			100	0	Brown F-M SAND
8-12			100	0	Brown F-M SAND
12-16	B7	14.5-15.5	100	200	Grey SILT and, Sand
					Wet at 16'
16-20			100		Grey SILT and, Sand, wet

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Project No.: E1015676

Project Name: Waters Edge

Project Manager: Chuck Mulligan/ Pete Biolchini

Total Depth: 20'

Water Table Depth: 16.5'

Date: February 21, 2001

Location: Port Jervis, New York

Drilling Company: S2C2

Method Used: Geoprobe

Boring No.: B8

Depth (feet)	Sample No.	Sample Interval	Recovered %	Field Screening Result (ppm)	Soil Identification and Remarks (include color, composition, moisture, and visual and olfactory observations of contamination)
0-4			60	0.5	Brown M-C Sand, trace Silt
4-8			20	0.2	Brown M-C Sand, trace Silt
8-12			30	12	Brown M-C Sand, trace Silt
12-16	B8	15-16	75	20	Brown M-C Sand, trace Silt
16-20			70	13	Clay and, Silt moist, wet at 16.5

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Project No.: E1015676

Project Name: Waters Edge

Project Manager: Chuck Mulligan/ Pete Biolchini

Total Depth: 20'

Water Table Depth: 16'

Date: February 22, 2001

Location: Port Jervis, New York

Drilling Company: S2C2

Method Used: Geoprobe

Boring No.: B9

Depth (feet)	Sample No.	Sample Interval	Recovered %	Field Screening Result (ppm)	Soil Identification and Remarks (include color, composition, moisture, and visual and olfactory observations of contamination)
					Water sampler driven to 20' no soil sampling conducted.

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Boring Log

Project No.: E1015676

Project Name: Waters Edge

Project Manager: Chuck Mulligan/ Pete Biolchini

Total Depth: 20'

Water Table Depth: 16'

Date: February 22, 2001

Location: Port Jervis, New York

Drilling Company: S2C2

Method Used: Geoprobe

Boring No.: B10

Depth (feet)	Sample No.	Sample Interval	Recovered %	Field Screening Result (ppm)	Soil Identification and Remarks (include color, composition, moisture, and visual and olfactory observations of contamination)
					Drive point driven to 20' no soil sampling conducted.
					Temporary 1" PVC screen and riser installed to sample
					water.

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Boring Log

Project No.: E1015676
Project Name: Waters Edge
Project Manager: Chuck Mulligan/ Pete Biolchini
Total Depth: 20'
Water Table Depth: 16'

Date: February 22, 2001
Location: Port Jervis, New York
Drilling Company: S2C2
Method Used: Geoprobe
Boring No.: B11

Depth (feet)	Sample No.	Sample Interval	Recovered %	Field Screening Result (ppm)	Soil Identification and Remarks (include color, composition, moisture, and visual and olfactory observations of contamination)
					Drive point driven to 20' no soil sampling conducted.
					Temporary 1" PVC screen and riser installed to sample
					water.

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Project No.: E1015676
Project Name: Waters Edge
Project Manager: Chuck Mulligan/ Pete Biolchini
Total Depth: 20'
Water Table Depth: 16'

Date: February 22, 2001
Location: Port Jervis, New York
Drilling Company: S2C2
Method Used: Geoprobe
Boring No.: B12

Depth (feet)	Sample No.	Sample Interval	Recovered %	Field Screening Result (ppm)	Soil Identification and Remarks (include color, composition, moisture, and visual and olfactory observations of contamination)
					Drive point driven to 20' no soil sampling conducted.
					Temporary 1" PVC screen and riser installed to sample
					water.

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Project No.: E1015676

Project Name: Waters Edge

Project Manager: Chuck Mulligan/ Pete Biolchini

Total Depth: 20'

Water Table Depth: 16'

Date: February 21, 2001

Location: Port Jervis, New York

Drilling Company: S2C2

Method Used: Geoprobe

Boring No.: B13

Depth (feet)	Sample No.	Sample Interval	Recovered %	Field Screening Result (ppm)	Soil Identification and Remarks (include color, composition, moisture, and visual and olfactory observations of contamination)
0-4			100		Concrete
				4.5	Brown M SAND, trace Silt
4-8			75	90	Brown CLAY, trace Silt
8-12			75	110	8-10 Brown CLAY
				215	10-12 Brown M SAND, trace Silt
					Lemon-like odor noted
12-16	B13	14.5-15.5	100	440	Brown M-C SAND, some Clay and, Silt
16-20			100		Brown M-C SAND, wet at 16'

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Boring Log

Project No.: E1015676
Project Name: Waters Edge
Project Manager: Chuck Mulligan/ Pete Biolchini
Total Depth: 24'
Water Table Depth: 20'

Date: February 22, 2001
Location: Port Jervis, New York
Drilling Company: S2C2
Method Used: Geoprobe
Boring No.: B14

Depth (feet)	Sample No.	Sample Interval	Recovered %	Field Screening Result (ppm)	Soil Identification and Remarks (include color, composition, moisture, and visual and olfactory observations of contamination)
					Water sampler driven to 24' no soil sampling conducted.

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Boring Log

Project No.: E1015676
Project Name: Waters Edge
Project Manager: Chuck Mulligan/ Pete Biolchini
Total Depth: 20'
Water Table Depth: 16'

Date: February 22, 2001
Location: Port Jervis, New York
Drilling Company: S2C2
Method Used: Geoprobe
Boring No.: B17

Depth (feet)	Sample No.	Sample Interval	Recovered %	Field Screening Result (ppm)	Soil Identification and Remarks (include color, composition, moisture, and visual and olfactory observations of contamination)
					Drive point driven to 20' no soil sampling conducted.
					Temporary 1" PVC screen and riser installed to sample
					water.

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Boring Log

Project No.: E1015676
Project Name: Waters Edge
Project Manager: Chuck Mulligan/ Pete Biolchini
Total Depth: 20'
Water Table Depth: 16'

Date: February 22, 2001
Location: Port Jervis, New York
Drilling Company: S2C2
Method Used: Geoprobe
Boring No.: B18

Depth (feet)	Sample No.	Sample Interval	Recovered %	Field Screening Result (ppm)	Soil Identification and Remarks (include color, composition, moisture, and visual and olfactory observations of contamination)
					Drive point driven to 20' no soil sampling conducted.
					Temporary 1" PVC screen and riser installed to sample
					water.

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Boring Log

Project No.: E1015676
Project Name: Waters Edge
Project Manager: Chuck Mulligan/ Pete Biolchini
Total Depth: 4'
Water Table Depth: Not Encountered

Date: February 22, 2001
Location: Port Jervis, New York
Drilling Company: S2C2
Method Used: Geoprobe
Boring No.: B19

Depth (feet)	Sample No.	Sample Interval	Recovered %	Field Screening Result (ppm)	Soil Identification and Remarks (include color, composition, moisture, and visual and olfactory observations of contamination)
0-4			70	0	0-2 Topsoil, fill, brick
					2-4 Brown F- C SAND and SILT, some Gravel

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Boring Log

Project No.: E1015676
Project Name: Waters Edge
Project Manager: Chuck Mulligan/ Pete Biolchini
Total Depth: 24'
Water Table Depth: 16'

Date: March 22, 2001
Location: Port Jervis, New York
Drilling Company: ADT
Method Used: Geoprobe
Boring No.: B20

Depth (feet)	Sample No.	Sample Interval	Recovered %	Field Screening Result (ppm)	Soil Identification and Remarks (include color, composition, moisture, and visual and olfactory observations of contamination)
					Drive point driven to 24' no soil sampling conducted.
					Temporary 1" PVC screen and riser installed to sample
					water.

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Boring Log

Project No.: E1015676

Project Name: Waters Edge

Project Manager: Chuck Mulligan/ Pete Biolchini

Total Depth: 40'

Water Table Depth: >24'

Date: February 21, 2001

Location: Port Jervis, New York

Drilling Company: S2C2

Method Used: Geoprobe

Boring No.: B21

Depth (feet)	Sample No.	Sample Interval	Recovered %	Field Screening Result (ppm)	Soil Identification and Remarks (include color, composition, moisture, and visual and olfactory observations of contamination)
0-4			90	0	0-3" Drilled through concrete
					3"-4' Black F-C SAND and SILT
4-8			100	0	Brown F- C SAND
8-12			100	0	Brown F-C SAND
12-16			100	0	Grey SILT
16-20			100	0	Grey SILT
20-24			100	0	Grey SILT
					Refusal with Macrocore sampler at 24'.
					Water sampler driven to 40' to obtain water sample.

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Test Pit Log

Project No.: E1015676
Project Name: Waters Edge
Project Manager: Chuck Mulligan/ Pete Biolchini
Total Depth: 6'
Water Table Depth: Not Encountered

Date: February 20, 2001
Location: Port Jervis, New York
Excavating Company: Port Jervis DPW
Method Used: Backhoe
Test Pit No.: TP 1

Depth (feet)	Sample No.	Sample Interval	Recovered %	Field Screening Result (ppm)	Soil Identification and Remarks (include color, composition, moisture, and visual and olfactory observations of contamination)
0-3				0	Asphalt, Black M SAND, trace Silt
3-6				0	Red CLAY, some M Sand

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Test Pit Log

Project No.: E1015676
Project Name: Waters Edge
Project Manager: Chuck Mulligan/ Pete Biolchini
Total Depth: 6'
Water Table Depth: Not Encountered

Date: February 20, 2001
Location: Port Jervis, New York
Excavating Company: Port Jervis DPW
Method Used: Backhoe
Test Pit No.: TP 2

Depth (feet)	Sample No.	Sample Interval	Recovered %	Field Screening Result (ppm)	Soil Identification and Remarks (include color, composition, moisture, and visual and olfactory observations of contamination)
0-3				0	Asphalt, Black M SAND, trace Silt
					Some brick
3-6				0	Brown F-M SAND, some Silt
					Some brick and concrete debris

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Test Pit Log

Project No.: E1015676

Project Name: Waters Edge

Project Manager: Chuck Mulligan/ Pete Biolchini

Total Depth: 6'

Water Table Depth: Not Encountered

Date: February 20, 2001

Location: Port Jervis, New York

Excavating Company: Port Jervis DPW

Method Used: Backhoe

Test Pit No.: TP 3

Depth (feet)	Sample No.	Sample Interval	Recovered %	Field Screening Result (ppm)	Soil Identification and Remarks (include color, composition, moisture, and visual and olfactory observations of contamination)
0-3				13.6	Asphalt, Black F- M SAND, some Silt
					Some brick
3-6	TP3	5-6		50	Brown F-M SAND, some Silt
					Some brick and concrete debris

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Test Pit Log

Project No.: E1015676
Project Name: Waters Edge
Project Manager: Chuck Mulligan/ Pete Biolchini
Total Depth: 6'
Water Table Depth: Not Encountered

Date: February 20, 2001
Location: Port Jervis, New York
Excavating Company: Port Jervis DPW
Method Used: Backhoe
Test Pit No.: TP 4

Depth (feet)	Sample No.	Sample Interval	Recovered %	Field Screening Result (ppm)	Soil Identification and Remarks (include color, composition, moisture, and visual and olfactory observations of contamination)
0-3				30	Asphalt, Black F-M SAND, some Silt
					Some brick
3-6	TP-4	5-6		75	Brown F-M SAND, and SILT
					Some brick and concrete debris

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Test Pit Log

Project No.: E1015676

Project Name: Waters Edge

Project Manager: Chuck Mulligan/ Pete Biolchini

Total Depth: 6'

Water Table Depth: Not Encountered

Date: February 20, 2001

Location: Port Jervis, New York

Excavating Company: Port Jervis DPW

Method Used: Backhoe

Test Pit No.: TP 5

Depth (feet)	Sample No.	Sample Interval	Recovered %	Field Screening Result (ppm)	Soil Identification and Remarks (include color, composition, moisture, and visual and olfactory observations of contamination)
0-3				0	Asphalt, Black M SAND, trace Silt
3-6				0	Brown F-M SAND, some Silt

IVI Environmental, Inc.
105 Corporate Park Drive
White Plains, New York 10604
(914) 694-9600 (tel)
(914) 694-2903 (fax)

Test Pit Log

Project No.: E1015676
Project Name: Waters Edge
Project Manager: Chuck Mulligan/ Pete Biolchini
Total Depth: 6'
Water Table Depth: Not Encountered

Date: February 20, 2001
Location: Port Jervis, New York
Excavating Company: Port Jervis DPW
Method Used: Backhoe
Test Pit No.: TP 6

Depth (feet)	Sample No.	Sample Interval	Recovered %	Field Screening Result (ppm)	Soil Identification and Remarks (include color, composition, moisture, and visual and olfactory observations of contamination)
0-3				0	Asphalt, Black M SAND, trace Silt
					Some brick
3-6	TP-6	5-6		0	Brown F-M SAND, some Silt and Clay
					Some brick and concrete debris

IVI Environmental, Inc.

105 Corporate Park Drive
White Plains, New York 10604
(914) 694-9600 (tel)
(914) 694-2903 (fax)

Test Pit Log

Project No.: E1015676
Project Name: Waters Edge
Project Manager: Chuck Mulligan/ Pete Biolchini
Total Depth: 16'
Water Table Depth: Not Encountered

Date: February 20, 2001
Location: Port Jervis, New York
Excavating Company: Port Jervis DPW
Method Used: Backhoe
Test Pit No.: TP 7

Depth (feet)	Sample No.	Sample Interval	Recovered %	Field Screening Result (ppm)	Soil Identification and Remarks (include color, composition, moisture, and visual and olfactory observations of contamination)
0-1				0	Black M SAND, trace Silt
1-5				0	Orange M-C SAND
5-12				0	Grey M-C SAND
12-16	TP-7	15-16		50	Grey F-C SAND, and SILT

IVI Environmental, Inc.

105 Corporate Park Drive
White Plains, New York 10604
(914) 694-9600 (tel)
(914) 694-2903 (fax)

Test Pit Log

Project No.: E1015676
Project Name: Waters Edge
Project Manager: Chuck Mulligan/ Pete Biolchini
Total Depth: 16'
Water Table Depth: Not Encountered

Date: February 20, 2001
Location: Port Jervis, New York
Excavating Company: Port Jervis DPW
Method Used: Backhoe
Test Pit No.: TP 8

Depth (feet)	Sample No.	Sample Interval	Recovered %	Field Screening Result (ppm)	Soil Identification and Remarks (include color, composition, moisture, and visual and olfactory observations of contamination)
0-1				0	Black M SAND, trace Silt
1-5				0	Orange M-C SAND
5-11				0	Grey M-C SAND
11-16	TP-8	15-16		0	Grey F-C SAND, and SILT

IVI Environmental, Inc.
105 Corporate Park Drive
White Plains, New York 10604
(914) 694-9600 (tel)
(914) 694-2903 (fax)

Test Pit Log

Project No.: E1015676

Project Name: Waters Edge

Project Manager: Chuck Mulligan/ Pete Biolchini

Total Depth: 16'

Water Table Depth: Not Encountered

Date: February 20, 2001

Location: Port Jervis, New York

Excavating Company: Port Jervis DPW

Method Used: Backhoe

Test Pit No.: TP 9

Depth (feet)	Sample No.	Sample Interval	Recovered %	Field Screening Result (ppm)	Soil Identification and Remarks (include color, composition, moisture, and visual and olfactory observations of contamination)
0-2				0	Black M SAND, trace Silt
2-5				0	Orange M-C SAND, trace Silt
					Tank encountered at 3' bgs
5-8				0	Grey M-C SAND
8-16	TP-7	15-16		10	Grey F-C SAND and, Silt

IVI Environmental, Inc.
105 Corporate Park Drive
White Plains, New York 10604
(914) 694-9600 (tel)
(914) 694-2903 (fax)

Test Pit Log

Project No.: E1015676
Project Name: Waters Edge
Project Manager: Chuck Mulligan/ Pete Biolchini
Total Depth: 6'
Water Table Depth: Not Encountered

Date: February 20, 2001
Location: Port Jervis, New York
Excavating Company: Port Jervis DPW
Method Used: Backhoe
Test Pit No.: TP 10

Depth (feet)	Sample No.	Sample Interval	Recovered %	Field Screening Result (ppm)	Soil Identification and Remarks (include color, composition, moisture, and visual and olfactory observations of contamination)
0-1				0	Concrete Slab
1-6				0	Black/Orange M-C SAND, some Silt

IVI Environmental, Inc.

105 Corporate Park Drive
White Plains, New York 10604
(914) 694-9600

Monitoring Well Development, Purging and Sampling Data Log

Project No.: E1015676	Monitoring Well: MW 1
Project Name: Waters Edge	Well Casing Diameter: 2 in.
Project Manager: Chuck Mulligan/ Pete Biolichini	Well Stick-up Height: ft.
Project Location: Port Jervis, New York	Depth of Well from Top of Well Casing: 25.9 ft.
Water Analyzer Used: Horiba U-10	Depth of Well from Top of Roadbox Casing: 26.2 ft.

WELL DEVELOPMENT DATA

DATE: 2/21/01		Distance from Top of Well Casing to:		Height of Water Column (ft.)	Volume Factor[1]	Well Volume (gal.)
	Time	Water (ft.)	Free Product (ft.)			
Before Development		22.95		2.98	0.163	0.5
After Development				NA	NA	NA

Volume of Groundwater Removed During Development: gal.

Comments:

WELL PURGING AND SAMPLING DATA

DATE:

Distance from top of well casing to water: 22.95 ft.

Distance from top of well casing to free product: NA ft.

Number of Well Volumes	Time	pH	Temp °C	Conductivity uS/cm	Dissolved Oxygen (ppm)
0		6.7	9	0.82	8.8
1		5.0	11	0.77	14.0
2		4.1	11	0.77	18.9
3		4.2	11	0.78	19.9
4					
5					

Comments:

Notes:

[1]Volume Factor = 0.163 gal./ft. and 0.653 gal./ft. for 2" and 4" diameter well casings, respectively.
NA = Not Applicable

CHEMTECH 205 Campus Plaza 1 • Edison, NJ 08837 Phone 732.225.4111 Fax 732.225.4110

DATA PACKAGE FOR RESULTS SUMMARY

PROJECT NAME: WATERS EDGE
PROJECT # E 1015676

IVI ENVIRONMENTAL
105 CORP PARK DRIVE
WHITE PLAINS, NY 10604
914-694-9600

CHEMTECH PROJECT **L3355ASP**
ATTENTION **CHUCK MULLIGAN**

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

B17

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355ASP Site: WATERS E Location: LB12385 Group: 5971-VOA

Matrix: (soil/water) WATER Lab Sample ID: O12

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VV030626.D

Level: (low/med) _____ Date Received: 2/27/01

% Moisture: not dec. 100 Date Analyzed: 3/7/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
71-43-2	Benzene	5	U
108-88-3	Toluene	5	U
100-41-4	Ethyl Benzene	5	U
136777-61-2	m/p-Xylenes	5	U
95-47-6	o-Xylene	5	U
98-82-8	Isopropylbenzene	5	U
103-65-1	n-propylbenzene	5	U
108-67-8	1,3,5-Trimethylbenzene	5	U
98-06-6	tert-Butylbenzene	5	U
95-63-6	1,2,4-Trimethylbenzene	5	U
135-98-8	sec-Butylbenzene	5	U
99-87-6	p-Isopropyltoluene	5	U
104-51-8	n-Butylbenzene	5	U
91-20-3	Naphthalene	5	U
1634-04-4	Methyl tert-butyl Ether		

1E

SAMPLE NO.

B17

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No. L3355A Site: WATERS Location: LB12385 Group: 5971-VOA

Matrix: (soil/water) WATER Lab Sample ID: O12

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VV030626.D

Level: (low/med) Date Received: 2/27/01

% Moisture: not dec. 100 Date Analyzed: 3/7/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 2 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 76-13-1	Ethane, 1,1,2-trichloro-1,2,	3.83	8	J
2.	Column Bleed	28.91	5.3	J
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

FB12/21

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355ASP Site: WATERS E Location: LB12385 Group: 5971-VOA

Matrix: (soil/water) WATER Lab Sample ID: O15

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VV030622.D

Level: (low/med) Date Received: 2/27/01

% Moisture: not dec. 100 Date Analyzed: 3/6/01

GC Column: RTX624 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/L	Q
71-43-2	Benzene	5	U
108-88-3	Toluene	5	U
100-41-4	Ethyl Benzene	5	U
136777-61-2	m/p-Xylenes	5	U
95-47-6	o-Xylene	5	U
98-82-8	Isopropylbenzene	5	U
103-65-1	n-propylbenzene	5	U
108-67-8	1,3,5-Trimethylbenzene	5	U
98-06-6	tert-Butylbenzene	5	U
95-63-6	1,2,4-Trimethylbenzene	5	U
135-98-8	sec-Butylbenzene	5	U
99-87-6	p-Isopropyltoluene	5	U
104-51-8	n-Butylbenzene	5	U
91-20-3	Naphthalene	5	U
1634-04-4	Methyl tert-butyl Ether	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

FB12/21

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No. L3355A Site: WATERS Location: LB12385 Group: 5971-VOA

Matrix: (soil/water) WATER Lab Sample ID: O15

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VV030622.D

Level: (low/med) Date Received: 2/27/01

% Moisture: not dec. 100 Date Analyzed: 3/6/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units:
(ug/L or ug/Kg) ug/L

Number TICs found: 2

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 76-13-1	Ethane, 1,1,2-trichloro-1,2,	3.86	7.8	J
2.	Column Bleed	28.92	16	J
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

TP7'6'

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355ASP Site: WATERS ELocation: LB12243 Group: 5970-VOA

Matrix: (soil/water) SOIL Lab Sample ID: O20

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E3174.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: not dec. 20 Date Analyzed: 3/5/01

GC Column: DB624 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
71-43-2	Benzene	6.3	U
108-88-3	Toluene	6.3	U
100-41-4	Ethyl Benzene	6.3	U
136777-61-2	m/p-Xylenes	6.3	U
95-47-6	o-Xylene	6.3	U
98-82-8	Isopropylbenzene	6.3	U
103-65-1	n-propylbenzene	6.3	U
108-67-8	1,3,5-Trimethylbenzene	6.3	U
98-06-6	tert-Butylbenzene	6.3	U
95-63-6	1,2,4-Trimethylbenzene	6.3	U
135-98-8	sec-Butylbenzene	6.3	U
99-87-6	p-Isopropyltoluene	6.3	U
104-51-8	n-Butylbenzene	6.3	U
91-20-3	Naphthalene	6.3	U
1634-04-4	Methyl tert-butyl Ether	6.3	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

TP7'6'

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No. L3355A Site: WATERS Location: LB12243 Group: 5970-VOA

Matrix: (soil/water) SOIL Lab Sample ID: O20

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E3174.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: not dec. 20 Date Analyzed: 3/5/01

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 1 (uL) Soil Aliquot Volume: 1 (uL)

Number TICs found: 0 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

TP8'6'

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355ASP Site: WATERS ELocation: LB12243 Group: 5970-VOA

Matrix: (soil/water) SOIL Lab Sample ID: O21

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E3175.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: not dec. 19 Date Analyzed: 3/5/01

GC Column: DB624 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
71-43-2	Benzene	6.2	U
108-88-3	Toluene	6.2	U
100-41-4	Ethyl Benzene	6.2	U
136777-61-2	m/p-Xylenes	6.2	U
95-47-6	o-Xylene	6.2	U
98-82-8	Isopropylbenzene	6.2	U
103-65-1	n-propylbenzene	6.2	U
108-67-8	1,3,5-Trimethylbenzene	6.2	U
98-06-6	tert-Butylbenzene	6.2	U
95-63-6	1,2,4-Trimethylbenzene	6.2	U
135-98-8	sec-Butylbenzene	6.2	U
99-87-6	p-Isopropyltoluene	6.2	U
104-51-8	n-Butylbenzene	6.2	U
91-20-3	Naphthalene	6.2	U
1634-04-4	Methyl tert-butyl Ether	6.2	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

TP8'6'

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No. L3355A Site: WATERS Location: LB12243 Group: 5970-VOA

Matrix: (soil/water) SOIL Lab Sample ID: O21

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E3175.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: not dec. 19 Date Analyzed: 3/5/01

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 1 (uL) Soil Aliquot Volume: 1 (uL)

Concentration Units:
(ug/L or ug/Kg) ug/Kg

Number TICs found: 2

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 76-13-1	Ethane, 1,1,2-trichloro-1,2,	4.83	7.4	J
2.	Column Bleed	30.94	6.4	J
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

TP9'4'

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355ASP Site: WATERS ELocation: LB12243 Group: 5970-VOA

Matrix: (soil/water) SOIL Lab Sample ID: O22

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E3176.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: not dec. 17 Date Analyzed: 3/5/01

GC Column: DB624 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
71-43-2	Benzene	6	U
108-88-3	Toluene	6	U
100-41-4	Ethyl Benzene	6	U
136777-61-2	m/p-Xylenes	6	U
95-47-6	o-Xylene	6	U
98-82-8	Isopropylbenzene	6	U
103-65-1	n-propylbenzene	6	U
108-67-8	1,3,5-Trimethylbenzene	6	U
98-06-6	tert-Butylbenzene	6	U
95-63-6	1,2,4-Trimethylbenzene	6	U
135-98-8	sec-Butylbenzene	6	U
99-87-6	p-Isopropyltoluene	6	U
104-51-8	n-Butylbenzene	6	U
91-20-3	Naphthalene	6	U
1634-04-4	Methyl tert-butyl Ether	6	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

TP9'4'

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No. L3355A Site: WATERS Location: LB12243 Group: 5970-VOA

Matrix: (soil/water) SOIL Lab Sample ID: O22

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E3176.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: not dec. 17 Date Analyzed: 3/5/01

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 1 (uL) Soil Aliquot Volume: 1 (uL)

Number TICs found: 0 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW1

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS El Location: LB12348 Group: 5971-VOA

Matrix: (soil/water) WATER Lab Sample ID: O01

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN030511.D

Level: (low/med) Date Received: 2/27/01

% Moisture: not dec. 100 Date Analyzed: 3/5/01

GC Column: RTX624 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/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	t-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethyl Benzene	10	U
100-42-5	Styrene	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW1

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS EI Location: LB12348 Group: 5971-VOA

Matrix: (soil/water) WATER Lab Sample ID: O01

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN030511.D

Level: (low/med) Date Received: 2/27/01

% Moisture: not dec. 100 Date Analyzed: 3/5/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
136777-61-2	m/p-Xylenes	10	U
95-47-6	o-Xylene	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

MW1

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS Location: LB12348 Group: 5971-VOA

Matrix: (soil/water) WATER Lab Sample ID: O01

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN030511.D

Level: (low/med) Date Received: 2/27/01

% Moisture: not dec. 100 Date Analyzed: 3/5/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

B6

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS El Location: LB12348 Group: 5971-VOA

Matrix: (soil/water) WATER Lab Sample ID: O02

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN030512.D

Level: (low/med) Date Received: 2/27/01

% Moisture: not dec. 100 Date Analyzed: 3/5/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	80	
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	4.7	J
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	t-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	J
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethyl Benzene	10	U
100-42-5	Styrene	10	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

B6

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS El Location: LB12348 Group: 5971-VOA

Matrix: (soil/water) WATER Lab Sample ID: O02

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN030512.D

Level: (low/med) Date Received: 2/27/01

% Moisture: not dec. 100 Date Analyzed: 3/5/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
136777-61-2	m/p-Xylenes	10	U
95-47-6	o-Xylene	10	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

B6

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS Location: LB12348 Group: 5971-VOA

Matrix: (soil/water) WATER Lab Sample ID: O02

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN030512.D

Level: (low/med) _____ Date Received: 2/27/01

% Moisture: not dec. 100 Date Analyzed: 3/5/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

B7

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS El Location: LB12348 Group: 5971-VOA

Matrix: (soil/water) WATER Lab Sample ID: O03

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN030522.D

Level: (low/med) Date Received: 2/27/01

% Moisture: not dec. 100 Date Analyzed: 3/6/01

GC Column: RTX624 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/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	t-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	1.7	J
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethyl Benzene	10	U
100-42-5	Styrene	10	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

B7

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS El Location: LB12348 Group: 5971-VOA

Matrix: (soil/water) WATER Lab Sample ID: O03

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN030522.D

Level: (low/med) Date Received: 2/27/01

% Moisture: not dec. 100 Date Analyzed: 3/6/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
136777-61-2	m/p-Xylenes	10	U
95-47-6	o-Xylene	10	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

B7

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS Location: LB12348 Group: 5971-VOA

Matrix: (soil/water) WATER Lab Sample ID: O03

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN030522.D

Level: (low/med) Date Received: 2/27/01

% Moisture: not dec. 100 Date Analyzed: 3/6/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 2 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Column Bleed	5.48	5.4	J
2. 873-94-9	Cyclohexanone, 3,3,5-trimeth	20.46	5.7	J
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

B8

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS EI Location: LB12348 Group: 5971-VOA

Matrix: (soil/water) WATER Lab Sample ID: O04

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN030523.D

Level: (low/med) _____ Date Received: 2/27/01

% Moisture: not dec. 100 Date Analyzed: 3/6/01

GC Column: RTX624 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/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	3.3	J
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	t-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	1.5	J
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethyl Benzene	10	U
100-42-5	Styrene	10	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

B8

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS El Location: LB12348 Group: 5971-VOA

Matrix: (soil/water) WATER Lab Sample ID: O04

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN030523.D

Level: (low/med) Date Received: 2/27/01

% Moisture: not dec. 100 Date Analyzed: 3/6/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
136777-61-2	m/p-Xylenes	10	U
95-47-6	o-Xylene	10	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

B8

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS Location: LB12348 Group: 5971-VOA

Matrix: (soil/water) WATER Lab Sample ID: O04

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN030523.D

Level: (low/med) Date Received: 2/27/01

% Moisture: not dec. 100 Date Analyzed: 3/6/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

B9

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS EI Location: LB12348 Group: 5971-VOA

Matrix: (soil/water) WATER Lab Sample ID: O05

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN030609.D

Level: (low/med) Date Received: 2/27/01

% Moisture: not dec. 100 Date Analyzed: 3/6/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	t-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethyl Benzene	10	U
100-42-5	Styrene	10	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

B9

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS El Location: LB12348 Group: 5971-VOA

Matrix: (soil/water) WATER Lab Sample ID: O05

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN030609.D

Level: (low/med) _____ Date Received: 2/27/01

% Moisture: not dec. 100 Date Analyzed: 3/6/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
136777-61-2	m/p-Xylenes	10	U
95-47-6	o-Xylene	10	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

B9

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS Location: LB12348 Group: 5971-VOA

Matrix: (soil/water) WATER Lab Sample ID: O05

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN030609.D

Level: (low/med) Date Received: 2/27/01

% Moisture: not dec. 100 Date Analyzed: 3/6/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units:
(ug/L or ug/Kg) ug/L

Number TICs found: 1

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 76-13-1	Ethane, 1,1,2-trichloro-1,2,	2.70	14	J
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

B10

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS El Location: LB12348 Group: 5971-VOA

Matrix: (soil/water) WATER Lab Sample ID: O06

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN030516.D

Level: (low/med) Date Received: 2/27/01

% Moisture: not dec. 100 Date Analyzed: 3/5/01

GC Column: RTX624 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/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	26	
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	5.7	J
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	t-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethyl Benzene	10	U
100-42-5	Styrene	10	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

B10

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS EI Location: LB12348 Group: 5971-VOA

Matrix: (soil/water) WATER Lab Sample ID: O06

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN030516.D

Level: (low/med) _____ Date Received: 2/27/01

% Moisture: not dec. 100 Date Analyzed: 3/5/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
136777-61-2	m/p-Xylenes	10	U
95-47-6	o-Xylene	10	U

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SAMPLE NO.

B10

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS Location: LB12348 Group: 5971-VOA

Matrix: (soil/water) WATER Lab Sample ID: O06

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN030516.D

Level: (low/med) Date Received: 2/27/01

% Moisture: not dec. 100 Date Analyzed: 3/5/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

B10D

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS El Location: LB12348 Group: 5971-VOA

Matrix: (soil/water) WATER Lab Sample ID: O07

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN030517.D

Level: (low/med) Date Received: 2/27/01

% Moisture: not dec. 100 Date Analyzed: 3/5/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	17	
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	3.6	J
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	t-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethyl Benzene	10	U
100-42-5	Styrene	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

B10D

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS EI Location: LB12348 Group: 5971-VOA

Matrix: (soil/water) WATER Lab Sample ID: O07

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN030517.D

Level: (low/med) _____ Date Received: 2/27/01

% Moisture: not dec. 100 Date Analyzed: 3/5/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
136777-61-2	m/p-Xylenes	10	U
95-47-6	o-Xylene	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

B10D

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS Location: LB12348 Group: 5971-VOA

Matrix: (soil/water) WATER Lab Sample ID: O07

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN030517.D

Level: (low/med) Date Received: 2/27/01

% Moisture: not dec. 100 Date Analyzed: 3/5/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

B11

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS El Location: LB12348 Group: 5971-VOA

Matrix: (soil/water) WATER Lab Sample ID: O08

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN030524.D

Level: (low/med) Date Received: 2/27/01

% Moisture: not dec. 100 Date Analyzed: 3/6/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	t-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethyl Benzene	10	U
100-42-5	Styrene	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

B11

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS EI Location: LB12348 Group: 5971-VOA

Matrix: (soil/water) WATER Lab Sample ID: O08

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN030524.D

Level: (low/med) Date Received: 2/27/01

% Moisture: not dec. 100 Date Analyzed: 3/6/01

GC Column: RTX624 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/L	Q
136777-61-2	m/p-Xylenes	10	U
95-47-6	o-Xylene	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

B11

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS Location: LB12348 Group: 5971-VOA

Matrix: (soil/water) WATER Lab Sample ID: O08

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN030524.D

Level: (low/med) Date Received: 2/27/01

% Moisture: not dec. 100 Date Analyzed: 3/6/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

B12

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS El Location: LB12348 Group: 5971-VOA

Matrix: (soil/water) WATER Lab Sample ID: O09

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN030525.D

Level: (low/med) Date Received: 2/27/01

% Moisture: not dec. 100 Date Analyzed: 3/6/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	17	
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	t-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5.1	J
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethyl Benzene	10	U
100-42-5	Styrene	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

B12

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS EI Location: LB12348 Group: 5971-VOA

Matrix: (soil/water) WATER Lab Sample ID: O09

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN030525.D

Level: (low/med) Date Received: 2/27/01

% Moisture: not dec. 100 Date Analyzed: 3/6/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
136777-61-2	m/p-Xylenes	10	U
95-47-6	o-Xylene	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.
B12

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS Location: LB12348 Group: 5971-VOA

Matrix: (soil/water) WATER Lab Sample ID: O09

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN030525.D

Level: (low/med) Date Received: 2/27/01

% Moisture: not dec. 100 Date Analyzed: 3/6/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

B13

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS El Location: LB12348 Group: 5971-VOA

Matrix: (soil/water) WATER Lab Sample ID: O10

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN030526.D

Level: (low/med) Date Received: 2/27/01

% Moisture: not dec. 100 Date Analyzed: 3/6/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	12	
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	t-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethyl Benzene	10	U
100-42-5	Styrene	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

B13

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS El Location: LB12348 Group: 5971-VOA

Matrix: (soil/water) WATER Lab Sample ID: O10

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN030526.D

Level: (low/med) Date Received: 2/27/01

% Moisture: not dec. 100 Date Analyzed: 3/6/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
136777-61-2	m/p-Xylenes	10	U
95-47-6	o-Xylene	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

B13

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS Location: LB12348 Group: 5971-VOA

Matrix: (soil/water) WATER Lab Sample ID: O10

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN030526.D

Level: (low/med) Date Received: 2/27/01

% Moisture: not dec. 100 Date Analyzed: 3/6/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

B14

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS El Location: LB12348 Group: 5971-VOA

Matrix: (soil/water) WATER Lab Sample ID: O11

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN030527.D

Level: (low/med) Date Received: 2/27/01

% Moisture: not dec. 100 Date Analyzed: 3/6/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	41	
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
156-59-2	cis-1,2-Dichloroethene	9.1	J
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	2400	E
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	t-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethyl Benzene	10	U
100-42-5	Styrene	10	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

B14

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS EI Location: LB12348 Group: 5971-VOA

Matrix: (soil/water) WATER Lab Sample ID: O11

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN030527.D

Level: (low/med) Date Received: 2/27/01

% Moisture: not dec. 100 Date Analyzed: 3/6/01

GC Column: RTX624 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/L	Q
136777-61-2	m/p-Xylenes	10	U
95-47-6	o-Xylene	10	U

1E

SAMPLE NO.

B14

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS Location: LB12348 Group: 5971-VOA

Matrix: (soil/water) WATER Lab Sample ID: O11

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN030527.D

Level: (low/med) Date Received: 2/27/01

% Moisture: not dec. 100 Date Analyzed: 3/6/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

B14DL

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS EI Location: LB12348 Group: 5971-VOA

Matrix: (soil/water) WATER Lab Sample ID: O11DL

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN030610.D

Level: (low/med) Date Received: 2/27/01

% Moisture: not dec. 100 Date Analyzed: 3/6/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 50.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
74-87-3	Chloromethane	500	UD
74-83-9	Bromomethane	500	UD
75-01-4	Vinyl Chloride	500	UD
75-00-3	Chloroethane	500	UD
75-09-2	Methylene Chloride	500	UD
67-64-1	Acetone	500	UD
75-15-0	Carbon Disulfide	500	UD
75-35-4	1,1-Dichloroethene	500	UD
75-34-3	1,1-Dichloroethane	500	UD
156-60-5	trans-1,2-Dichloroethene	500	UD
156-59-2	cis-1,2-Dichloroethene	500	UD
67-66-3	Chloroform	500	UD
107-06-2	1,2-Dichloroethane	500	UD
78-93-3	2-Butanone	500	UD
71-55-6	1,1,1-Trichloroethane	500	UD
56-23-5	Carbon Tetrachloride	500	UD
75-27-4	Bromodichloromethane	500	UD
78-87-5	1,2-Dichloropropane	500	UD
10061-01-5	cis-1,3-Dichloropropene	500	UD
79-01-6	Trichloroethene	2700	D
124-48-1	Dibromochloromethane	500	UD
79-00-5	1,1,2-Trichloroethane	500	UD
71-43-2	Benzene	500	UD
10061-02-6	t-1,3-Dichloropropene	500	UD
75-25-2	Bromoform	500	UD
108-10-1	4-Methyl-2-Pentanone	500	UD
591-78-6	2-Hexanone	500	UD
127-18-4	Tetrachloroethene	500	UD
79-34-5	1,1,2,2-Tetrachloroethane	500	UD
108-88-3	Toluene	500	UD
108-90-7	Chlorobenzene	500	UD
100-41-4	Ethyl Benzene	500	UD
100-42-5	Styrene	500	UD

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

B14DL

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS EI Location: LB12348 Group: 5971-VOA

Matrix: (soil/water) WATER Lab Sample ID: O11DL

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN030610.D

Level: (low/med) Date Received: 2/27/01

% Moisture: not dec. 100 Date Analyzed: 3/6/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 50.0

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

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
136777-61-2	m/p-Xylenes	500	UD
95-47-6	o-Xylene	500	UD

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

B18

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS El Location: LB12348 Group: 5971-VOA

Matrix: (soil/water) WATER Lab Sample ID: O13

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN030529.D

Level: (low/med) _____ Date Received: 2/27/01

% Moisture: not dec. 100 Date Analyzed: 3/6/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
136777-61-2	m/p-Xylenes	10	U
95-47-6	o-Xylene	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

B18

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS Location: LB12348 Group: 5971-VOA

Matrix: (soil/water) WATER Lab Sample ID: O13

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN030529.D

Level: (low/med) Date Received: 2/27/01

% Moisture: not dec. 100 Date Analyzed: 3/6/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 6 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 98-82-8	Benzene, (1-methylethyl)-	15.55	7.9	J
2. 135-98-8	Benzene, (1-methylpropyl)-	18.27	10	J
3. 535-77-3	Benzene, 1-methyl-3-(1-methy	19.23	5.1	J
4. 1587-04-8	Benzene, 1-methyl-2-(2-prope	20.81	8.2	J
5. 1758-88-9	Benzene, 2-ethyl-1,4-dimethy	20.90	16	J
6. 17059-48-2	1H-Indene, 2,3-dihydro-1,6-d	21.27	7.8	J
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

B20

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL INC.

Project No.: L3656 Site: WATERS EI Location: Group: 5970-VOA

Matrix: (soil/water) WATER Lab Sample ID: O07

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN032706.D

Level: (low/med) Date Received: 3/23/01

% Moisture: not dec. 100 Date Analyzed: 3/27/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	13	
67-64-1	Acetone	21	
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	960	E
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	t-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	7.3	J
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethyl Benzene	10	U
100-42-5	Styrene	10	U

PRELIMINARY RESULTS
Subject to change upon further data quality review

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

B20

Lab Name: CHEMTECH Contract. IVI ENVIRONMENTAL INC.

Project No.. L3656 Site. WATERS EI Location: Group. 5970-VOA

Matrix: (soil/water) WATER Lab Sample ID: O07

Sample wt/vol: 5.0 (g/mL) ML Lab File ID. VN032706.D

Level. (low/med) Date Received: 3/23/01

% Moisture: not dec 100 Date Analyzed: 3/27/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1 0

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

Concentration Units. (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
136777-61-2	m/p-Xylenes	10	U
95-47-6	o-Xylene	10	U

FORM I VOA

PRELIMINARY RESULTS
Subject to change upon further data quality review

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SAMPLE NO

B20

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL INC.

Project No : L3656 Site. WATERS Location. Group: 5970-VOA

Matrix: (soil/water) WATER Lab Sample ID: 007

Sample wt/vol: 5.0 (g/mL) ML Lab File ID. VN032706 D

Level: (low/med) Date Received. 3/23/01

% Moisture. not dec. 100 Date Analyzed. 3/27/01

GC Column: RTX624 ID. 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 1 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 4	Unknown	14.43	220	J
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
B20DL

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL INC.

Project No.: L3656 Site: WATERS ELocation: Group: 5970-VOA

Matrix: (soil/water) WATER Lab Sample ID: O07DL

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN032806.D

Level: (low/med) Date Received: 3/23/01

% Moisture: not dec. 100 Date Analyzed: 3/28/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 10.0

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	100	UD
74-83-9	Bromomethane	100	UD
75-01-4	Vinyl Chloride	100	UD
75-00-3	Chloroethane	100	UD
75-09-2	Methylene Chloride	100	UD
67-64-1	Acetone	100	UD
75-15-0	Carbon Disulfide	100	UD
75-35-4	1,1-Dichloroethene	100	UD
75-34-3	1,1-Dichloroethane	100	UD
156-60-5	trans-1,2-Dichloroethene	100	UD
156-59-2	cis-1,2-Dichloroethene	100	UD
67-66-3	Chloroform	100	UD
107-06-2	1,2-Dichloroethane	100	UD
78-93-3	2-Butanone	100	UD
71-55-6	1,1,1-Trichloroethane	100	UD
56-23-5	Carbon Tetrachloride	100	UD
75-27-4	Bromodichloromethane	100	UD
78-87-5	1,2-Dichloropropane	100	UD
10061-01-5	cis-1,3-Dichloropropene	100	UD
79-01-6	Trichloroethene	1700	D
124-48-1	Dibromochloromethane	100	UD
79-00-5	1,1,2-Trichloroethane	100	UD
71-43-2	Benzene	100	UD
10061-02-6	t-1,3-Dichloropropene	100	UD
75-25-2	Bromoform	100	UD
108-10-1	4-Methyl-2-Pentanone	100	UD
591-78-6	2-Hexanone	100	UD
127-18-4	Tetrachloroethene	100	UD
79-34-5	1,1,2,2-Tetrachloroethane	100	UD
108-88-3	Toluene	100	UD
108-90-7	Chlorobenzene	100	UD
100-41-4	Ethyl Benzene	100	UD
100-42-5	Styrene	100	UD

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

B20DL

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL INC.

Project No.: L3656 Site: WATERS ELocation: Group: 5970-VOA

Matrix: (soil/water) WATER Lab Sample ID: O07DL

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN032806.D

Level: (low/med) Date Received: 3/23/01

% Moisture: not dec. 100 Date Analyzed: 3/28/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 10.0

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

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
136777-61-2	m/p-Xylenes	100	UD
95-47-6	o-Xylene	100	UD

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO. B21

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL INC.

Project No.: L3656 Site: WATERS ELocation: Group: 5970-VOA

Matrix: (soil/water) WATER Lab Sample ID: O08

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN032805.D

Level: (low/med) Date Received: 3/23/01

% Moisture: not dec. 100 Date Analyzed: 3/28/01

GC Column: RTX624 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/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	8.3	J
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	t-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	3.1	J
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethyl Benzene	10	U
100-42-5	Styrene	10	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
B21

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL INC.

Project No.: L3656 Site: WATERS E Location: Group: 5970-VOA

Matrix: (soil/water) WATER Lab Sample ID: O08

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN032805.D

Level: (low/med) Date Received: 3/23/01

% Moisture: not dec. 100 Date Analyzed: 3/28/01

GC Column: RTX624 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/L	Q
136777-61-2	m/p-Xylenes	10	U
95-47-6	o-Xylene	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.
B21

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL INC.

Project No. L3656 Site: WATERS Location: Group: 5970-VOA

Matrix: (soil/water) WATER Lab Sample ID: O08

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN032805.D

Level: (low/med) Date Received: 3/23/01

% Moisture: not dec. 100 Date Analyzed: 3/28/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 1 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Column Bleed	21.25	15	J
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

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Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL INC

Project No.: L3656 Site. WATERS EI Location: Group: 5970-VOA

Matrix: (soil/water) WATER Lab Sample ID: 009

Sample wt/vol: 5 0 (g/mL) ML Lab File ID: VN032705.D

Level: (low/med) Date Received: 3/23/01

% Moisture: not dec. 100 Date Analyzed. 3/27/01

GC Column: RTX624 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/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	t-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethyl Benzene	10	U
100-42-5	Styrene	10	U

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SAMPLE NO

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VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: CHEMTECH Contract. IVI ENVIRONMENTAL INC.

Project No.: L3656 Site: WATERS EI Location. _____ Group: 5970-VOA

Matrix: (soil/water) WATER Lab Sample ID: O09

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN032705 D

Level: (low/med) _____ Date Received: 3/23/01

% Moisture. not dec. 100 Date Analyzed. 3/27/01

GC Column: RTX624 ID. 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units. (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
136777-61-2	m/p-Xylenes	10	U
95-47-6	o-Xylene	10	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.
TRIPBLANK

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL INC

Project No.: L3656 Site: WATERS I Location: Group. 5970-VOA

Matrix: (soil/water) WATER Lab Sample ID: 009

Sample wt/vol: 5 0 (g/mL) ML Lab File ID: VN032705 D

Level: (low/med) Date Received: 3/23/01

% Moisture: not dec 100 Date Analyzed: 3/27/01

GC Column: RTX624 ID: 0 53 (mm) Dilution Factor: 1 0

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

Number TICs found: 1 Concentration Units. (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc	Q
1.	Column Bleed	21.26	5.3	J
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

INTSUMP

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS El Location: LB12348 Group: 5971-VOA

Matrix: (soil/water) WATER Lab Sample ID: O14

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN030611.D

Level: (low/med) Date Received: 2/27/01

% Moisture: not dec. 100 Date Analyzed: 3/6/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 500.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
74-87-3	Chloromethane	5000	U
74-83-9	Bromomethane	5000	U
75-01-4	Vinyl Chloride	5000	U
75-00-3	Chloroethane	5000	U
75-09-2	Methylene Chloride	5000	U
67-64-1	Acetone	5000	U
75-15-0	Carbon Disulfide	5000	U
75-35-4	1,1-Dichloroethene	5000	U
75-34-3	1,1-Dichloroethane	15000	
156-60-5	trans-1,2-Dichloroethene	5000	U
156-59-2	cis-1,2-Dichloroethene	5000	U
67-66-3	Chloroform	5000	U
107-06-2	1,2-Dichloroethane	5000	U
78-93-3	2-Butanone	5000	U
71-55-6	1,1,1-Trichloroethane	6100	
56-23-5	Carbon Tetrachloride	5000	U
75-27-4	Bromodichloromethane	5000	U
78-87-5	1,2-Dichloropropane	5000	U
10061-01-5	cis-1,3-Dichloropropene	5000	U
79-01-6	Trichloroethene	5000	U
124-48-1	Dibromochloromethane	5000	U
79-00-5	1,1,2-Trichloroethane	5000	U
71-43-2	Benzene	5000	U
10061-02-6	t-1,3-Dichloropropene	5000	U
75-25-2	Bromoform	5000	U
108-10-1	4-Methyl-2-Pentanone	5000	U
591-78-6	2-Hexanone	5000	U
127-18-4	Tetrachloroethene	5000	U
79-34-5	1,1,2,2-Tetrachloroethane	5000	U
108-88-3	Toluene	5000	U
108-90-7	Chlorobenzene	5000	U
100-41-4	Ethyl Benzene	5000	U
100-42-5	Styrene	5000	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

INTSUMP

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS El Location: LB12348 Group: 5971-VOA

Matrix: (soil/water) WATER Lab Sample ID: O14

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN030611.D

Level: (low/med) Date Received: 2/27/01

% Moisture: not dec. 100 Date Analyzed: 3/6/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 500.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
136777-61-2	m/p-Xylenes	5000	U
95-47-6	o-Xylene	5000	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

INTSUMP

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS Location: LB12348 Group: 5971-VOA

Matrix: (soil/water) WATER Lab Sample ID: O14

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN030611.D

Level: (low/med) Date Received: 2/27/01

% Moisture: not dec. 100 Date Analyzed: 3/6/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 500.0

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

Number TICs found: 2 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 76-13-1	Ethane, 1,1,2-trichloro-1,2,	2.69	6700	J
2.	Column Bleed	21.29	3000	J
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

FB22/23

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS El Location: LB12348 Group: 5971-VOA

Matrix: (soil/water) WATER Lab Sample ID: O16

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN030510.D

Level: (low/med) Date Received: 2/27/01

% Moisture: not dec. 100 Date Analyzed: 3/5/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	t-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethyl Benzene	10	U
100-42-5	Styrene	10	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

FB22/23

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS El Location: LB12348 Group: 5971-VOA

Matrix: (soil/water) WATER Lab Sample ID: O16

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN030510.D

Level: (low/med) Date Received: 2/27/01

% Moisture: not dec. 100 Date Analyzed: 3/5/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
136777-61-2	m/p-Xylenes	10	U
95-47-6	o-Xylene	10	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

FB22/23

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS Location: LB12348 Group: 5971-VOA

Matrix: (soil/water) WATER Lab Sample ID: O16

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN030510.D

Level: (low/med) Date Received: 2/27/01

% Moisture: not dec. 100 Date Analyzed: 3/5/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units:
(ug/L or ug/Kg) ug/L

Number TICs found: 0

CAS Number	Compound Name	RT	Est. Conc.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

TP35

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS El Location: LB12351 Group: 5971-VOA

Matrix: (soil/water) SOIL Lab Sample ID: O17

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VV030504.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: not dec. 20 Date Analyzed: 3/5/01

GC Column: RTX624 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	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	13	U
67-64-1	Acetone	13	U
75-15-0	Carbon Disulfide	13	U
75-35-4	1,1-Dichloroethene	13	U
75-34-3	1,1-Dichloroethane	13	U
156-60-5	trans-1,2-Dichloroethene	13	U
156-59-2	cis-1,2-Dichloroethene	13	U
67-66-3	Chloroform	13	U
107-06-2	1,2-Dichloroethane	13	U
78-93-3	2-Butanone	13	U
71-55-6	1,1,1-Trichloroethane	13	U
56-23-5	Carbon Tetrachloride	13	U
75-27-4	Bromodichloromethane	13	U
78-87-5	1,2-Dichloropropane	13	U
10061-01-5	cis-1,3-Dichloropropene	13	U
79-01-6	Trichloroethene	13	U
124-48-1	Dibromochloromethane	13	U
79-00-5	1,1,2-Trichloroethane	13	U
71-43-2	Benzene	13	U
10061-02-6	t-1,3-Dichloropropene	13	U
75-25-2	Bromoform	13	U
108-10-1	4-Methyl-2-Pentanone	13	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	13	U
79-34-5	1,1,2,2-Tetrachloroethane	13	U
108-88-3	Toluene	13	U
108-90-7	Chlorobenzene	13	U
100-41-4	Ethyl Benzene	13	U
100-42-5	Styrene	13	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

TP35

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS El Location: LB12351 Group: 5971-VOA

Matrix: (soil/water) SOIL Lab Sample ID: O17

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VV030504.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: not dec. 20 Date Analyzed: 3/5/01

GC Column: RTX624 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
136777-61-2	m/p-Xylenes	13	U
95-47-6	o-Xylene	13	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

TP35

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS Location: LB12351 Group: 5971-VOA

Matrix: (soil/water) SOIL Lab Sample ID: O17

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VV030504.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: not dec. 20.3 Date Analyzed: 3/5/01

GC Column: RTX624 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

Number TICs found: 1

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 76-13-1	Ethane, 1,1,2-trichloro-1,2,	3.83	6.9	J
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

~~B6~~-TP45

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS El Location: LB12351 Group: 5971-VOA

Matrix: (soil/water) SOIL Lab Sample ID: O18

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VN030215.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: not dec. 9 Date Analyzed: 3/2/01

GC Column: RTX624 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	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	11	U
67-64-1	Acetone	11	U
75-15-0	Carbon Disulfide	11	U
75-35-4	1,1-Dichloroethene	11	U
75-34-3	1,1-Dichloroethane	11	U
156-60-5	trans-1,2-Dichloroethene	11	U
156-59-2	cis-1,2-Dichloroethene	11	U
67-66-3	Chloroform	11	U
107-06-2	1,2-Dichloroethane	11	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	11	U
56-23-5	Carbon Tetrachloride	11	U
75-27-4	Bromodichloromethane	11	U
78-87-5	1,2-Dichloropropane	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
79-01-6	Trichloroethene	11	U
124-48-1	Dibromochloromethane	11	U
79-00-5	1,1,2-Trichloroethane	11	U
71-43-2	Benzene	11	U
10061-02-6	t-1,3-Dichloropropene	11	U
75-25-2	Bromoform	11	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
108-88-3	Toluene	11	U
108-90-7	Chlorobenzene	11	U
100-41-4	Ethyl Benzene	11	U
100-42-5	Styrene	11	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

~~B6-TP45~~

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS El Location: LB12351 Group: 5971-VOA

Matrix: (soil/water) SOIL Lab Sample ID: O18

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VN030215.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: not dec. 9 Date Analyzed: 3/2/01

GC Column: RTX624 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
136777-61-2	m/p-Xylenes	11	U
95-47-6	o-Xylene	11	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

~~B6-TP45~~

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS Location: LB12351 Group: 5971-VOA

Matrix: (soil/water) SOIL Lab Sample ID: O18

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VN030215.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: not dec. 8.8 Date Analyzed: 3/2/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 1 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Column Bleed	21.28	7	J
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

TP66

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS El Location: LB12351 Group: 5971-VOA

Matrix: (soil/water) SOIL Lab Sample ID: O19

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VV030505.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: not dec. 21 Date Analyzed: 3/5/01

GC Column: RTX624 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	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	13	U
67-64-1	Acetone	13	U
75-15-0	Carbon Disulfide	13	U
75-35-4	1,1-Dichloroethene	13	U
75-34-3	1,1-Dichloroethane	13	U
156-60-5	trans-1,2-Dichloroethene	13	U
156-59-2	cis-1,2-Dichloroethene	13	U
67-66-3	Chloroform	13	U
107-06-2	1,2-Dichloroethane	13	U
78-93-3	2-Butanone	13	U
71-55-6	1,1,1-Trichloroethane	13	U
56-23-5	Carbon Tetrachloride	13	U
75-27-4	Bromodichloromethane	13	U
78-87-5	1,2-Dichloropropane	13	U
10061-01-5	cis-1,3-Dichloropropene	13	U
79-01-6	Trichloroethene	13	U
124-48-1	Dibromochloromethane	13	U
79-00-5	1,1,2-Trichloroethane	13	U
71-43-2	Benzene	13	U
10061-02-6	t-1,3-Dichloropropene	13	U
75-25-2	Bromoform	13	U
108-10-1	4-Methyl-2-Pentanone	13	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	13	U
79-34-5	1,1,2,2-Tetrachloroethane	13	U
108-88-3	Toluene	13	U
108-90-7	Chlorobenzene	13	U
100-41-4	Ethyl Benzene	13	U
100-42-5	Styrene	13	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

TP66

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS El Location: LB12351 Group: 5971-VOA

Matrix: (soil/water) SOIL Lab Sample ID: O19

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VV030505.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: not dec. 21 Date Analyzed: 3/5/01

GC Column: RTX624 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
136777-61-2	m/p-Xylenes	13	U
95-47-6	o-Xylene	13	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

TP66

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS Location: LB12351 Group: 5971-VOA

Matrix: (soil/water) SOIL Lab Sample ID: O19

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VV030505.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: not dec. 21.2 Date Analyzed: 3/5/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 1 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 76-13-1	Ethane, 1,1,2-trichloro-1,2,	3.83	9.1	J
2.				
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

B6-6

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS EI Location: LB12351 Group: 5971-VOA

Matrix: (soil/water) SOIL Lab Sample ID: O23

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VN030217.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: not dec. 11 Date Analyzed: 3/2/01

GC Column: RTX624 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	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	11	U
67-64-1	Acetone	11	U
75-15-0	Carbon Disulfide	11	U
75-35-4	1,1-Dichloroethene	11	U
75-34-3	1,1-Dichloroethane	11	U
156-60-5	trans-1,2-Dichloroethene	11	U
156-59-2	cis-1,2-Dichloroethene	11	U
67-66-3	Chloroform	11	U
107-06-2	1,2-Dichloroethane	11	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	11	U
56-23-5	Carbon Tetrachloride	11	U
75-27-4	Bromodichloromethane	11	U
78-87-5	1,2-Dichloropropane	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
79-01-6	Trichloroethene	11	U
124-48-1	Dibromochloromethane	11	U
79-00-5	1,1,2-Trichloroethane	11	U
71-43-2	Benzene	11	U
10061-02-6	t-1,3-Dichloropropene	11	U
75-25-2	Bromoform	11	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
108-88-3	Toluene	11	U
108-90-7	Chlorobenzene	11	U
100-41-4	Ethyl Benzene	11	U
100-42-5	Styrene	11	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

B6-6

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS El Location: LB12351 Group: 5971-VOA

Matrix: (soil/water) SOIL Lab Sample ID: O23

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VN030217.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: not dec. 11 Date Analyzed: 3/2/01

GC Column: RTX624 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
136777-61-2	m/p-Xylenes	11	U
95-47-6	o-Xylene	11	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

B6-6

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS Location: LB12351 Group: 5971-VOA

Matrix: (soil/water) SOIL Lab Sample ID: O23

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VN030217.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: not dec. 10.8 Date Analyzed: 3/2/01

GC Column: RTX624 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

Number TICs found: 5

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 95-13-6	Indene	19.91	11	J
2.	Column Bleed	21.28	7.3	J
3. 91-20-3	Naphthalene	24.35	120	J
4. 91-57-6	Naphthalene, 2-methyl-	27.47	24	J
5. 90-12-0	Naphthalene, 1-methyl-	28.03	18	J
6.				
7.				
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

B7-6

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS EI Location: LB12351 Group: 5971-VOA

Matrix: (soil/water) SOIL Lab Sample ID: O24

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VN030218.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: not dec. 15 Date Analyzed: 3/2/01

GC Column: RTX624 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
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	12	U
67-64-1	Acetone	12	U
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	12	U
75-34-3	1,1-Dichloroethane	12	U
156-60-5	trans-1,2-Dichloroethene	12	U
156-59-2	cis-1,2-Dichloroethene	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	12	U
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	12	U
10061-02-6	t-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	12	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethyl Benzene	12	U
100-42-5	Styrene	12	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

B7-6

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS El Location: LB12351 Group: 5971-VOA

Matrix: (soil/water) SOIL Lab Sample ID: O24

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VN030218.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: not dec. 15 Date Analyzed: 3/2/01

GC Column: RTX624 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
136777-61-2	m/p-Xylenes	12	U
95-47-6	o-Xylene	12	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

B7-6

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS Location: LB12351 Group: 5971-VOA

Matrix: (soil/water) SOIL Lab Sample ID: O24

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VN030218.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: not dec. 15.4 Date Analyzed: 3/2/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 1 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 91-20-3	Naphthalene	24.35	11	J
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

B8-6

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS EI Location: LB12351 Group: 5971-VOA

Matrix: (soil/water) SOIL Lab Sample ID: O25

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VN030219.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: not dec. 16 Date Analyzed: 3/3/01

GC Column: RTX624 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	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	12	U
67-64-1	Acetone	12	U
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	12	U
75-34-3	1,1-Dichloroethane	12	U
156-60-5	trans-1,2-Dichloroethene	12	U
156-59-2	cis-1,2-Dichloroethene	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	12	U
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	12	U
10061-02-6	t-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	12	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethyl Benzene	12	U
100-42-5	Styrene	12	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

B8-6

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS EI Location: LB12351 Group: 5971-VOA

Matrix: (soil/water) SOIL Lab Sample ID: O25

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VN030219.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: not dec. 16 Date Analyzed: 3/3/01

GC Column: RTX624 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
136777-61-2	m/p-Xylenes	12	U
95-47-6	o-Xylene	12	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

B8-6

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS Location: LB12351 Group: 5971-VOA

Matrix: (soil/water) SOIL Lab Sample ID: O25

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VN030219.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: not dec. 15.7 Date Analyzed: 3/3/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 1 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Column Bleed	21.28	7.6	J
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

B8D-6

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS El Location: LB12351 Group: 5971-VOA

Matrix: (soil/water) SOIL Lab Sample ID: O26

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VN030220.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: not dec. 9 Date Analyzed: 3/3/01

GC Column: RTX624 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	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	11	U
67-64-1	Acetone	11	U
75-15-0	Carbon Disulfide	11	U
75-35-4	1,1-Dichloroethene	11	U
75-34-3	1,1-Dichloroethane	11	U
156-60-5	trans-1,2-Dichloroethene	11	U
156-59-2	cis-1,2-Dichloroethene	11	U
67-66-3	Chloroform	11	U
107-06-2	1,2-Dichloroethane	11	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	11	U
56-23-5	Carbon Tetrachloride	11	U
75-27-4	Bromodichloromethane	11	U
78-87-5	1,2-Dichloropropane	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
79-01-6	Trichloroethene	11	U
124-48-1	Dibromochloromethane	11	U
79-00-5	1,1,2-Trichloroethane	11	U
71-43-2	Benzene	11	U
10061-02-6	t-1,3-Dichloropropene	11	U
75-25-2	Bromoform	11	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
108-88-3	Toluene	11	U
108-90-7	Chlorobenzene	11	U
100-41-4	Ethyl Benzene	11	U
100-42-5	Styrene	11	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

B8D-6

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS El Location: LB12351 Group: 5971-VOA

Matrix: (soil/water) SOIL Lab Sample ID: O26

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VN030220.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: not dec. 9 Date Analyzed: 3/3/01

GC Column: RTX624 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
136777-61-2	m/p-Xylenes	11	U
95-47-6	o-Xylene	11	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

B13-6

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS El Location: LB12351 Group: 5971-VOA

Matrix: (soil/water) SOIL Lab Sample ID: O27

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VN030221.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: not dec. 17 Date Analyzed: 3/3/01

GC Column: RTX624 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
136777-61-2	m/p-Xylenes	12	U
95-47-6	o-Xylene	12	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

B8D-6

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS Location: LB12351 Group: 5971-VOA

Matrix: (soil/water) SOIL Lab Sample ID: O26

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VN030220.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: not dec. 8.9 Date Analyzed: 3/3/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

B17

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS ED Location: LB12346 Group: MW1

Matrix: (soil/water) WATER Lab Sample ID: O12

Sample wt/vol: 700.0 (g/mL) ML Lab File ID: BL030617.D

Level: (low/med) Date Received: 02/27/01

% Moisture: 100 decanted: (Y/N): N Date Extracted: 03/01/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 03/07/01

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/L	Q
208-96-8	Acenaphthylene	14	U
91-20-3	Naphthalene	14	U
83-32-9	Acenaphthene	14	U
86-73-7	Fluorene	14	U
85-01-8	Phenanthrene	14	U
120-12-7	Anthracene	14	U
206-44-0	Fluoranthene	14	U
129-00-0	Pyrene	14	U
56-55-3	Benzo(a)anthracene	14	U
218-01-9	Chrysene	14	U
205-99-2	Benzo(b)fluoranthene	14	U
207-08-9	Benzo(k)fluoranthene	14	U
50-32-8	Benzo(a)pyrene	14	U
193-39-5	Indeno(1,2,3-cd)pyrene	14	U
53-70-3	Dibenzo(a,h)anthracene	14	U
191-24-2	Benzo(g,h,i)perylene	14	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

TRIPBLANK

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS Location: LB12348 Group: 5971-VOA

Matrix: (soil/water) WATER Lab Sample ID: O30

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN030509.D

Level: (low/med) Date Received: 2/27/01

% Moisture: not dec. 100 Date Analyzed: 3/5/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

B13-6

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS EI Location: LB12351 Group: 5971-VOA

Matrix: (soil/water) SOIL Lab Sample ID: O27

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VN030221.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: not dec. 17 Date Analyzed: 3/3/01

GC Column: RTX624 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	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	12	U
67-64-1	Acetone	12	U
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	12	U
75-34-3	1,1-Dichloroethane	12	U
156-60-5	trans-1,2-Dichloroethene	12	U
156-59-2	cis-1,2-Dichloroethene	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	12	U
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	12	U
10061-02-6	t-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	12	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethyl Benzene	12	U
100-42-5	Styrene	12	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

B13-6

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS Location: LB12351 Group: 5971-VOA

Matrix: (soil/water) SOIL Lab Sample ID: O27

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VN030221.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: not dec. 17 Date Analyzed: 3/3/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

TRIPBLANK

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS El Location: LB12348 Group: 5971-VOA

Matrix: (soil/water) WATER Lab Sample ID: O30

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN030509.D

Level: (low/med) Date Received: 2/27/01

% Moisture: not dec. 100 Date Analyzed: 3/5/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	t-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethyl Benzene	10	U
100-42-5	Styrene	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

TRIPBLANK

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS EI Location: LB12348 Group: 5971-VOA

Matrix: (soil/water) WATER Lab Sample ID: O30

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: VN030509.D

Level: (low/med) Date Received: 2/27/01

% Moisture: not dec. 100 Date Analyzed: 3/5/01

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
136777-61-2	m/p-Xylenes	10	U
95-47-6	o-Xylene	10	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

FB12/21

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS ED Location: LB12346 Group: MW1

Matrix: (soil/water) WATER Lab Sample ID: O15

Sample wt/vol: 990.0 (g/mL) ML Lab File ID: BL030614.D

Level: (low/med) Date Received: 02/27/01

% Moisture: 100 decanted: (Y/N): N Date Extracted: 03/01/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 03/07/01

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/L	Q
208-96-8	Acenaphthylene	10	U
91-20-3	Naphthalene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	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	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

TP7'6'

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS ED Location: LB12360 Group: MW1

Matrix: (soil/water) SOIL Lab Sample ID: O20

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BS030613.D

Level: (low/med) LOW Date Received: 02/27/01

% Moisture: 20 decanted: (Y/N): N Date Extracted: 03/01/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 03/06/01

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
208-96-8	Acenaphthylene	420	U
91-20-3	Naphthalene	420	U
83-32-9	Acenaphthene	420	U
86-73-7	Fluorene	420	U
85-01-8	Phenanthrene	420	U
120-12-7	Anthracene	420	U
206-44-0	Fluoranthene	420	U
129-00-0	Pyrene	420	U
56-55-3	Benzo(a)anthracene	420	U
218-01-9	Chrysene	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	Dibenzo(a,h)anthracene	420	U
191-24-2	Benzo(g,h,i)perylene	420	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

TP8'6'

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS ED Location: LB12403 Group: MW1

Matrix: (soil/water) SOIL Lab Sample ID: O21

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BS030724.D

Level: (low/med) LOW Date Received: 02/27/01

% Moisture: 19 decanted: (Y/N): N Date Extracted: 03/01/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 03/08/01

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
208-96-8	Acenaphthylene	410	U
91-20-3	Naphthalene	410	U
83-32-9	Acenaphthene	410	U
86-73-7	Fluorene	410	U
85-01-8	Phenanthrene	410	U
120-12-7	Anthracene	410	U
206-44-0	Fluoranthene	410	U
129-00-0	Pyrene	410	U
56-55-3	Benzo(a)anthracene	410	U
218-01-9	Chrysene	410	U
205-99-2	Benzo(b)fluoranthene	410	U
207-08-9	Benzo(k)fluoranthene	410	U
50-32-8	Benzo(a)pyrene	410	U
193-39-5	Indeno(1,2,3-cd)pyrene	410	U
53-70-3	Dibenzo(a,h)anthracene	410	U
191-24-2	Benzo(g,h,i)perylene	410	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

TP9'4'

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Project No.: L3355 Site: WATERS ED Location: LB12403 Group: MW1

Matrix: (soil/water) SOIL Lab Sample ID: O22

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BS030725.D

Level: (low/med) LOW Date Received: 02/27/01

% Moisture: 17 decanted: (Y/N): N Date Extracted: 03/01/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 03/08/01

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
208-96-8	Acenaphthylene	400	U
91-20-3	Naphthalene	400	U
83-32-9	Acenaphthene	400	U
86-73-7	Fluorene	400	U
85-01-8	Phenanthrene	400	U
120-12-7	Anthracene	400	U
206-44-0	Fluoranthene	400	U
129-00-0	Pyrene	400	U
56-55-3	Benzo(a)anthracene	400	U
218-01-9	Chrysene	400	U
205-99-2	Benzo(b)fluoranthene	400	U
207-08-9	Benzo(k)fluoranthene	400	U
50-32-8	Benzo(a)pyrene	400	U
193-39-5	Indeno(1,2,3-cd)pyrene	400	U
53-70-3	Dibenzo(a,h)anthracene	400	U
191-24-2	Benzo(g,h,i)perylene	400	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW1

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Lab Code: CHEM Case No.: L3355 SAS No.: LB12320 SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: O01

Sample wt/vol: 800.0 (g/mL) ML Lab File ID: BS030237.D

Level: (low/med) _____ Date Received: 2/27/01

% Moisture: 100 decanted: (Y/N): N Date Extracted: 3/1/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 3/3/01

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/L	Q
108-95-2	Phenol	13	U
95-57-8	2-Chlorophenol	13	U
95-48-7	2-Methylphenol	13	U
65794-96-9	3+4-Methylphenols	13	U
88-75-5	2-Nitrophenol	13	U
105-67-9	2,4-Dimethylphenol	13	U
120-83-2	2,4-Dichlorophenol	13	U
59-50-7	4-Chloro-3-methylphenol	13	U
88-06-2	2,4,6-Trichlorophenol	13	U
95-95-4	2,4,5-Trichlorophenol	31	U
51-28-5	2,4-Dinitrophenol	31	U
100-02-7	4-Nitrophenol	31	U
534-52-1	4,6-Dinitro-2-methylphenol	31	U
87-86-5	Pentachlorophenol	31	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW1

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Lab Code: CHEM Case No.: L3355 SAS No.: LB12320 SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: O01

Sample wt/vol: 800.0 (g/mL) ML Lab File ID: BS030237.D

Level: (low/med) Date Received: 2/27/01

% Moisture: 100 decanted: (Y/N) N Date Extracted: 3/1/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 3/3/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 2 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Unknown	23.08	3.1	J
2. 506-52-5	1-Hexacosanol	23.50	5.2	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B7

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Lab Code: CHEM Case No.: L3355 SAS No.: LB12320 SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: O03

Sample wt/vol: 990.0 (g/mL) ML Lab File ID: BS030244.D

Level: (low/med) _____ Date Received: 2/27/01

% Moisture: 100 decanted: (Y/N): N Date Extracted: 3/1/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 3/4/01

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/L	Q
108-95-2	Phenol	10	U
95-57-8	2-Chlorophenol	10	U
95-48-7	2-Methylphenol	10	U
65794-96-9	3+4-Methylphenols	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
120-83-2	2,4-Dichlorophenol	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
87-86-5	Pentachlorophenol	25	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B6

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Lab Code: CHEM Case No.: L3355 SAS No.: LB12320 SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: O02

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: BS030238.D

Level: (low/med) Date Received: 2/27/01

% Moisture: 100 decanted: (Y/N): N Date Extracted: 3/1/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 3/3/01

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/L	Q
108-95-2	Phenol	10	U
95-57-8	2-Chlorophenol	10	U
95-48-7	2-Methylphenol	10	U
65794-96-9	3+4-Methylphenols	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
120-83-2	2,4-Dichlorophenol	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
87-86-5	Pentachlorophenol	25	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B8

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Lab Code: CHEM Case No.: L3355 SAS No.: LB12320 SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: O04

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: BS030239.D

Level: (low/med) _____ Date Received: 2/27/01

% Moisture: 100 decanted: (Y/N): N Date Extracted: 3/1/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 3/3/01

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/L	Q
108-95-2	Phenol	10	U
95-57-8	2-Chlorophenol	10	U
95-48-7	2-Methylphenol	10	U
65794-96-9	3+4-Methylphenols	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
120-83-2	2,4-Dichlorophenol	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
87-86-5	Pentachlorophenol	25	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B8

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Lab Code: CHEM Case No.: L3355 SAS No.: LB12320 SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: O04

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: BS030239.D

Level: (low/med) _____ Date Received: 2/27/01

% Moisture: 100 decanted: (Y/N) N Date Extracted: 3/1/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 3/3/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

Number TICs found: 1 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 112-92-5	1-Octadecanol	23.50	4.3	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B9

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Lab Code: CHEM Case No.: L3355 SAS No.: LB12320 SDG No : MW1

Matrix: (soil/water) WATER Lab Sample ID: O05

Sample wt/vol: 980.0 (g/mL) ML Lab File ID: BS030243.D

Level: (low/med) Date Received: 2/27/01

% Moisture: 100 decanted: (Y/N): N Date Extracted: 3/1/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 3/4/01

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/L	Q
108-95-2	Phenol	10	U
95-57-8	2-Chlorophenol	10	U
95-48-7	2-Methylphenol	10	U
65794-96-9	3+4-Methylphenols	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
120-83-2	2,4-Dichlorophenol	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	26	U
51-28-5	2,4-Dinitrophenol	26	U
100-02-7	4-Nitrophenol	26	U
534-52-1	4,6-Dinitro-2-methylphenol	26	U
87-86-5	Pentachlorophenol	26	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B10

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Lab Code: CHEM Case No.: L3355 SAS No.: LB12424 SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: O06

Sample wt/vol: 900.0 (g/mL) ML Lab File ID: BS030722.D

Level: (low/med) Date Received: 2/27/01

% Moisture: 100 decanted: (Y/N): N Date Extracted: 3/1/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 3/8/01

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/L	Q
108-95-2	Phenol	11	U
95-57-8	2-Chlorophenol	11	U
95-48-7	2-Methylphenol	11	U
65794-96-9	3+4-Methylphenols	11	U
88-75-5	2-Nitrophenol	11	U
105-67-9	2,4-Dimethylphenol	11	U
120-83-2	2,4-Dichlorophenol	11	U
59-50-7	4-Chloro-3-methylphenol	11	U
88-06-2	2,4,6-Trichlorophenol	11	U
95-95-4	2,4,5-Trichlorophenol	28	U
51-28-5	2,4-Dinitrophenol	28	U
100-02-7	4-Nitrophenol	28	U
534-52-1	4,6-Dinitro-2-methylphenol	28	U
87-86-5	Pentachlorophenol	28	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B11

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Lab Code: CHEM Case No.: L3355 SAS No.: LB12320 SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: O08

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: BS030242.D

Level: (low/med) Date Received: 2/27/01

% Moisture: 100 decanted: (Y/N): N Date Extracted: 3/1/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 3/3/01

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/L	Q
108-95-2	Phenol	10	U
95-57-8	2-Chlorophenol	10	U
95-48-7	2-Methylphenol	10	U
65794-96-9	3+4-Methylphenols	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
120-83-2	2,4-Dichlorophenol	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
87-86-5	Pentachlorophenol	25	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B11

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Lab Code: CHEM Case No.: L3355 SAS No.: LB12320 SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: O08

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: BS030242.D

Level: (low/med) Date Received: 2/27/01

% Moisture: 100 decanted: (Y/N) N Date Extracted: 3/1/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 3/3/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 2 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 112-92-5	1-Octadecanol	23.50	5.5	J
2.	Unknown	25.19	2.6	J
3.				
4.				
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B12

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Lab Code: CHEM Case No.: L3355 SAS No.: LB12320 SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: O09

Sample wt/vol: 990.0 (g/mL) ML Lab File ID: BS030236.D

Level: (low/med) _____ Date Received: 2/27/01

% Moisture: 100 decanted: (Y/N): N Date Extracted: 3/1/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 3/3/01

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/L	Q
108-95-2	Phenol	10	U
95-57-8	2-Chlorophenol	10	U
95-48-7	2-Methylphenol	10	U
65794-96-9	3+4-Methylphenols	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
120-83-2	2,4-Dichlorophenol	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
87-86-5	Pentachlorophenol	25	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B12

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Lab Code: CHEM Case No.: L3355 SAS No.: LB12320 SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: O09

Sample wt/vol: 990.0 (g/mL) ML Lab File ID: BS030236.D

Level: (low/med) Date Received: 2/27/01

% Moisture: 100 decanted: (Y/N) N Date Extracted: 3/1/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 3/3/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 1 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 19047-85-9	Phosphonic acid, dioctadecyl	23.50	5.2	J
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EPA SAMPLE NO.

B18

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Lab Code: CHEM Case No.: L3355 SAS No.: LB12320 SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: O13

Sample wt/vol: 800.0 (g/mL) ML Lab File ID: BS030248.D

Level: (low/med) Date Received: 2/27/01

% Moisture: 100 decanted: (Y/N) N Date Extracted: 3/1/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 3/4/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 8 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 143-22-6	Ethanol, 2-[2-(2-butoxyethox	14.17	8.4	J
2. 50-79-3	Benzoic acid, 2,5-dichloro-	15.20	10	J
3.	Unknown	16.94	9.8	J
4. 57-10-3	Hexadecanoic acid	19.38	7.8	J
5.	Unknown	21.02	20	J
6.	Unknown	22.94	160	J
7. 1454-84-8	1-Nonadecanol	23.51	8.8	J
8. 17301-26-7	Undecane, 2,9-dimethyl-	24.14	6.6	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B13

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Lab Code: CHEM Case No.: L3355 SAS No.: LB12320 SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: O10

Sample wt/vol: 400.0 (g/mL) ML Lab File ID: BS030245.D

Level: (low/med) _____ Date Received: 2/27/01

% Moisture: 100 decanted: (Y/N): N Date Extracted: 3/1/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 3/4/01

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/L	Q
108-95-2	Phenol	25	U
95-57-8	2-Chlorophenol	25	U
95-48-7	2-Methylphenol	25	U
65794-96-9	3+4-Methylphenols	25	U
88-75-5	2-Nitrophenol	25	U
105-67-9	2,4-Dimethylphenol	25	U
120-83-2	2,4-Dichlorophenol	25	U
59-50-7	4-Chloro-3-methylphenol	25	U
88-06-2	2,4,6-Trichlorophenol	25	U
95-95-4	2,4,5-Trichlorophenol	63	U
51-28-5	2,4-Dinitrophenol	63	U
100-02-7	4-Nitrophenol	63	U
534-52-1	4,6-Dinitro-2-methylphenol	63	U
87-86-5	Pentachlorophenol	63	U

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EPA SAMPLE NO.

B13

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Lab Code: CHEM Case No.: L3355 SAS No.: LB12320 SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: O10

Sample wt/vol: 400.0 (g/mL) ML Lab File ID: BS030245.D

Level: (low/med) _____ Date Received: 2/27/01

% Moisture: 100 decanted: (Y/N) N Date Extracted: 3/1/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 3/4/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

Number TICs found: 1 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 19047-85-9	Phosphonic acid, dioctadecyl	23.49	14	J
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B14

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Lab Code: CHEM Case No.: L3355 SAS No.: LB12320 SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: O11

Sample wt/vol: 300.0 (g/mL) ML Lab File ID: BS030246.D

Level: (low/med) _____ Date Received: 2/27/01

% Moisture: 100 decanted: (Y/N): N Date Extracted: 3/1/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 3/4/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
108-95-2	Phenol	33	U
95-57-8	2-Chlorophenol	33	U
95-48-7	2-Methylphenol	33	U
65794-96-9	3+4-Methylphenols	33	U
88-75-5	2-Nitrophenol	33	U
105-67-9	2,4-Dimethylphenol	33	U
120-83-2	2,4-Dichlorophenol	33	U
59-50-7	4-Chloro-3-methylphenol	33	U
88-06-2	2,4,6-Trichlorophenol	33	U
95-95-4	2,4,5-Trichlorophenol	83	U
51-28-5	2,4-Dinitrophenol	83	U
100-02-7	4-Nitrophenol	83	U
534-52-1	4,6-Dinitro-2-methylphenol	83	U
87-86-5	Pentachlorophenol	83	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B14

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Lab Code: CHEM Case No.: L3355 SAS No.: LB12320 SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: O11

Sample wt/vol: 300.0 (g/mL) ML Lab File ID: BS030246.D

Level: (low/med) Date Received: 2/27/01

% Moisture: 100 decanted: (Y/N) N Date Extracted: 3/1/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 3/4/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 26 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 107-54-0	1-Hexyn-3-ol, 3,5-dimethyl-	5.19	84	J
2. 29006-02-8	Butanoic acid, 4-methoxy-	6.04	8.5	J
3. 111-76-2	Ethanol, 2-butoxy-	6.24	8.4	J
4. 111-77-3	Ethanol, 2-(2-methoxyethoxy)	7.05	250	J
5.	Unknown	9.36	8.8	J
6. 151-19-9	3-Octanol, 3,6-dimethyl-	9.79	94	J
7.	Unknown	9.97	40	J
8. 60-12-8	Phenylethyl Alcohol	10.07	11	J
9. 111-32-0	1-Butanol, 4-methoxy-	10.44	52	J
10. 21368-68-3	Bicyclo[2.2.1]heptan-2-one,	10.56	32	J
11. 54969-25-4	Benzo[b]cyclohepta[e][1,4]th	10.71	66	J
12.	Unknown	10.79	8.2	J
13.	Linalyl propanoate	11.22	32	J
14. 98-52-2	Cyclohexanol, 4-(1,1-dimethy	11.51	12	J
15.	Unknown	11.67	7.6	J
16. 103-82-2	Benzeneacetic acid	12.07	43	J
17.	1-(2-Thienyl)-1,2-propanedio	12.25	9.8	J
18.	Unknown	12.40	34	J
19.	Unknown	12.63	6.9	J
20. 74367-33-2	Propanoic acid, 2-methyl-, 2	13.20	8.1	J
21. 103-90-2	Acetaminophen	13.86	10	J
22. 112-73-2	Butane, 1,1'-[oxybis(2,1-eth	14.19	100	J
23. 57-10-3	Hexadecanoic acid	19.37	11	J
24. 583-04-0	Benzoic acid, 2-propenyl est	20.92	8.2	J
25. 1454-84-8	1-Nonadecanol	23.49	18	J
26. 7683-64-9	Squalene	25.62	7	J
27. 65-85-0	Benzoic acid	10.94	19	J
28.				
29.				
30.				

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B18

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Lab Code: CHEM Case No.: L3355 SAS No.: LB12320 SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: O13

Sample wt/vol: 800.0 (g/mL) ML Lab File ID: BS030248.D

Level: (low/med) Date Received: 2/27/01

% Moisture: 100 decanted: (Y/N): N Date Extracted: 3/1/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 3/4/01

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/L	Q
108-95-2	Phenol	13	U
95-57-8	2-Chlorophenol	13	U
95-48-7	2-Methylphenol	13	U
65794-96-9	3+4-Methylphenols	13	U
88-75-5	2-Nitrophenol	13	U
105-67-9	2,4-Dimethylphenol	13	U
120-83-2	2,4-Dichlorophenol	13	U
59-50-7	4-Chloro-3-methylphenol	13	U
88-06-2	2,4,6-Trichlorophenol	13	U
95-95-4	2,4,5-Trichlorophenol	31	U
51-28-5	2,4-Dinitrophenol	31	U
100-02-7	4-Nitrophenol	31	U
534-52-1	4,6-Dinitro-2-methylphenol	31	U
87-86-5	Pentachlorophenol	31	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FB22/23

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Lab Code: CHEM Case No.: L3355 SAS No.: LB12320 SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: O16

Sample wt/vol: 900.0 (g/mL) ML Lab File ID: BS030235.D

Level: (low/med) Date Received: 2/27/01

% Moisture: 100 decanted: (Y/N): N Date Extracted: 3/1/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 3/3/01

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/L	Q
108-95-2	Phenol	11	U
111-44-4	bis(2-Chloroethyl)ether	11	U
95-57-8	2-Chlorophenol	11	U
95-50-1	1,2-Dichlorobenzene	11	U
541-73-1	1,3-Dichlorobenzene	11	U
106-46-7	1,4-Dichlorobenzene	11	U
95-48-7	2-Methylphenol	11	U
108-60-1	2,2'-oxybis(1-Chloropropane)	11	U
65794-96-9	3+4-Methylphenols	11	U
621-64-7	N-Nitroso-di-n-propylamine	11	U
67-72-1	Hexachloroethane	11	U
98-95-3	Nitrobenzene	11	U
78-59-1	Isophorone	11	U
88-75-5	2-Nitrophenol	11	U
105-67-9	2,4-Dimethylphenol	11	U
111-91-1	bis(2-Chloroethoxy)methane	11	U
120-83-2	2,4-Dichlorophenol	11	U
120-82-1	1,2,4-Trichlorobenzene	11	U
91-20-3	Naphthalene	11	U
106-47-8	4-Chloroaniline	11	U
87-68-3	Hexachlorobutadiene	11	U
59-50-7	4-Chloro-3-methylphenol	11	U
91-57-6	2-Methylnaphthalene	11	U
77-47-4	Hexachlorocyclopentadiene	11	U
88-06-2	2,4,6-Trichlorophenol	11	U
95-95-4	2,4,5-Trichlorophenol	28	U
91-58-7	2-Chloronaphthalene	11	U
88-74-4	2-Nitroaniline	28	U
131-11-3	Dimethylphthalate	11	U
208-96-8	Acenaphthylene	11	U
606-20-2	2,6-Dinitrotoluene	11	U
99-09-2	3-Nitroaniline	28	U
83-32-9	Acenaphthene	11	U

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

FB22/23

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Lab Code: CHEM Case No.: L3355 SAS No.: LB12320 SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: O16

Sample wt/vol: 900.0 (g/mL) ML Lab File ID: BS030235.D

Level: (low/med) Date Received: 2/27/01

% Moisture: 100 decanted: (Y/N) N Date Extracted: 3/1/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 3/3/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 2 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 629-96-9	1-Eicosanol	23.50	4.6	J
2.	Unknown	25.82	2.3	J
3.				
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FB22/23

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Lab Code: CHEM Case No.: L3355 SAS No.: LB12320 SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: O16

Sample wt/vol: 900.0 (g/mL) ML Lab File ID: BS030235.D

Level: (low/med) Date Received: 2/27/01

% Moisture: 100 decanted: (Y/N): N Date Extracted: 3/1/01

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 3/3/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
51-28-5	2,4-Dinitrophenol	28	U
100-02-7	4-Nitrophenol	28	U
132-64-9	Dibenzofuran	11	U
121-14-2	2,4-Dinitrotoluene	11	U
84-66-2	Diethylphthalate	11	U
7005-72-3	4-Chlorophenyl-phenylether	11	U
86-73-7	Fluorene	11	U
100-01-6	4-Nitroaniline	28	U
534-52-1	4,6-Dinitro-2-methylphenol	28	U
86-30-6	N-Nitrosodiphenylamine	11	U
101-55-3	4-Bromophenyl-phenylether	11	U
118-74-1	Hexachlorobenzene	11	U
87-86-5	Pentachlorophenol	28	U
85-01-8	Phenanthrene	11	U
120-12-7	Anthracene	11	U
86-74-8	Carbazole	11	U
84-74-2	Di-n-butylphthalate	11	U
206-44-0	Fluoranthene	11	U
129-00-0	Pyrene	11	U
85-68-7	Butylbenzylphthalate	11	U
91-94-1	3,3'-Dichlorobenzidine	11	U
56-55-3	Benzo(a)anthracene	11	U
218-01-9	Chrysene	11	U
117-81-7	bis(2-Ethylhexyl)phthalate	11	U
117-84-0	Di-n-octyl phthalate	11	U
205-99-2	Benzo(b)fluoranthene	11	U
207-08-9	Benzo(k)fluoranthene	11	U
50-32-8	Benzo(a)pyrene	11	U
193-39-5	Indeno(1,2,3-cd)pyrene	11	U
53-70-3	Dibenzo(a,h)anthracene	11	U
191-24-2	Benzo(g,h,i)perylene	11	U

(1) - Cannot be separated from Diphenylamine

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TP35'

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Lab Code: CHEM Case No.: L3355 SAS No.: LB12423 SDG No.: MW1

Matrix: (soil/water) SOIL Lab Sample ID: O17

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BS030726.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: 20 decanted: (Y/N): N Date Extracted: 3/1/01

Concentrated Extract Volume: 500 (uL) Date Analyzed: 3/8/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	420	U
111-44-4	bis(2-Chloroethyl)ether	420	U
95-57-8	2-Chlorophenol	420	U
95-50-1	1,2-Dichlorobenzene	420	U
541-73-1	1,3-Dichlorobenzene	420	U
106-46-7	1,4-Dichlorobenzene	420	U
95-48-7	2-Methylphenol	420	U
108-60-1	2,2'-oxybis(1-Chloropropane)	420	U
65794-96-9	3+4-Methylphenols	420	U
621-64-7	N-Nitroso-di-n-propylamine	420	U
67-72-1	Hexachloroethane	420	U
98-95-3	Nitrobenzene	420	U
78-59-1	Isophorone	420	U
88-75-5	2-Nitrophenol	420	U
105-67-9	2,4-Dimethylphenol	420	U
111-91-1	bis(2-Chloroethoxy)methane	420	U
120-83-2	2,4-Dichlorophenol	420	U
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	1000	U
91-58-7	2-Chloronaphthalene	420	U
88-74-4	2-Nitroaniline	1000	U
131-11-3	Dimethylphthalate	420	U
208-96-8	Acenaphthylene	43	J
606-20-2	2,6-Dinitrotoluene	420	U
99-09-2	3-Nitroaniline	1000	U
83-32-9	Acenaphthene	420	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TP35'

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Lab Code: CHEM Case No.: L3355 SAS No.: LB12423 SDG No.: MW1

Matrix: (soil/water) SOIL Lab Sample ID: O17

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BS030726.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: 20 decanted: (Y/N): N Date Extracted: 3/1/01

Concentrated Extract Volume: 500 (uL) Date Analyzed: 3/8/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
51-28-5	2,4-Dinitrophenol	1000	U
100-02-7	4-Nitrophenol	1000	U
132-64-9	Dibenzofuran	420	U
121-14-2	2,4-Dinitrotoluene	420	U
84-66-2	Diethylphthalate	420	U
7005-72-3	4-Chlorophenyl-phenylether	420	U
86-73-7	Fluorene	420	U
100-01-6	4-Nitroaniline	1000	U
534-52-1	4,6-Dinitro-2-methylphenol	1000	U
86-30-6	N-Nitrosodiphenylamine	420	U
101-55-3	4-Bromophenyl-phenylether	420	U
118-74-1	Hexachlorobenzene	420	U
87-86-5	Pentachlorophenol	1000	U
85-01-8	Phenanthrene	270	J
120-12-7	Anthracene	52	J
86-74-8	Carbazole	420	U
84-74-2	Di-n-butylphthalate	420	U
206-44-0	Fluoranthene	450	
129-00-0	Pyrene	410	J
85-68-7	Butylbenzylphthalate	420	U
91-94-1	3,3'-Dichlorobenzidine	420	U
56-55-3	Benzo(a)anthracene	210	J
218-01-9	Chrysene	270	J
117-81-7	bis(2-Ethylhexyl)phthalate	420	U
117-84-0	Di-n-octyl phthalate	420	U
205-99-2	Benzo(b)fluoranthene	300	J
207-08-9	Benzo(k)fluoranthene	110	J
50-32-8	Benzo(a)pyrene	230	J
193-39-5	Indeno(1,2,3-cd)pyrene	120	J
53-70-3	Dibenzo(a,h)anthracene	420	U
191-24-2	Benzo(g,h,i)perylene	120	J

(1) - Cannot be separated from Diphenylamine

1F

EPA SAMPLE NO.

TP35'

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Lab Code: CHEM Case No.: L3355 SAS No.: LB12423 SDG No.: MW1

Matrix: (soil/water) SOIL Lab Sample ID: O17

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BS030726.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: 20 decanted: (Y/N) N Date Extracted: 3/1/01

Concentrated Extract Volume: 500 (uL) Date Analyzed: 3/8/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

Number TICs found: 17 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 57-10-3	Hexadecanoic acid	19.35	100	J
2. 295-65-8	Cyclohexadecane	23.47	160	J
3. 544-76-3	Hexadecane	24.81	130	J
4. 301-02-0	9-Octadecenamide, (Z)-	25.42	300	J
5. 629-92-5	Nonadecane	26.07	130	J
6. 205-99-2	Benz[e]acephenanthrylene	26.28	180	J
7. 112-95-8	Eicosane	26.75	220	J
8. 629-94-7	Heneicosane	27.54	260	J
9. 630-02-4	Octacosane	28.48	360	J
10.	Unknown	28.69	120	J
11.	1,12-Benzperylene	28.86	88	J
12. 630-06-8	Hexatriacontane	29.58	400	J
13. 646-31-1	Tetracosane	30.90	380	J
14. 629-99-2	Pentacosane	32.51	360	J
15. 7098-21-7	Tritetracontane	34.46	390	J
16.	Unknown	36.20	100	J
17.	Unknown	36.81	240	J
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1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TP45'

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Lab Code: CHEM Case No.: L3355 SAS No.: LB12423 SDG No.: MW1

Matrix: (soil/water) SOIL Lab Sample ID: O18

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BS030727.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: 9 decanted: (Y/N): N Date Extracted: 3/1/01

Concentrated Extract Volume: 500 (uL) Date Analyzed: 3/8/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
51-28-5	2,4-Dinitrophenol	920	U
100-02-7	4-Nitrophenol	920	U
132-64-9	Dibenzofuran	56	J
121-14-2	2,4-Dinitrotoluene	370	U
84-66-2	Diethylphthalate	370	U
7005-72-3	4-Chlorophenyl-phenylether	370	U
86-73-7	Fluorene	100	J
100-01-6	4-Nitroaniline	920	U
534-52-1	4,6-Dinitro-2-methylphenol	920	U
86-30-6	N-Nitrosodiphenylamine	370	U
101-55-3	4-Bromophenyl-phenylether	370	U
118-74-1	Hexachlorobenzene	370	U
87-86-5	Pentachlorophenol	920	U
85-01-8	Phenanthrene	920	
120-12-7	Anthracene	170	J
86-74-8	Carbazole	120	J
84-74-2	Di-n-butylphthalate	370	U
206-44-0	Fluoranthene	1200	
129-00-0	Pyrene	1000	
85-68-7	Butylbenzylphthalate	370	U
91-94-1	3,3'-Dichlorobenzidine	370	U
56-55-3	Benzo(a)anthracene	570	
218-01-9	Chrysene	630	
117-81-7	bis(2-Ethylhexyl)phthalate	370	U
117-84-0	Di-n-octyl phthalate	370	U
205-99-2	Benzo(b)fluoranthene	640	
207-08-9	Benzo(k)fluoranthene	410	
50-32-8	Benzo(a)pyrene	560	
193-39-5	Indeno(1,2,3-cd)pyrene	220	J
53-70-3	Dibenzo(a,h)anthracene	370	U
191-24-2	Benzo(g,h,i)perylene	210	J

(1) - Cannot be separated from Diphenylamine

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TP45'

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Lab Code: CHEM Case No.: L3355 SAS No.: LB12423 SDG No.: MW1

Matrix: (soil/water) SOIL Lab Sample ID: O18

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BS030727.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: 9 decanted: (Y/N): N Date Extracted: 3/1/01

Concentrated Extract Volume: 500 (uL) Date Analyzed: 3/8/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	370	U
111-44-4	bis(2-Chloroethyl)ether	370	U
95-57-8	2-Chlorophenol	370	U
95-50-1	1,2-Dichlorobenzene	370	U
541-73-1	1,3-Dichlorobenzene	370	U
106-46-7	1,4-Dichlorobenzene	370	U
95-48-7	2-Methylphenol	370	U
108-60-1	2,2'-oxybis(1-Chloropropane)	370	U
65794-96-9	3+4-Methylphenols	370	U
621-64-7	N-Nitroso-di-n-propylamine	370	U
67-72-1	Hexachloroethane	370	U
98-95-3	Nitrobenzene	370	U
78-59-1	Isophorone	370	U
88-75-5	2-Nitrophenol	370	U
105-67-9	2,4-Dimethylphenol	370	U
111-91-1	bis(2-Chloroethoxy)methane	370	U
120-83-2	2,4-Dichlorophenol	370	U
120-82-1	1,2,4-Trichlorobenzene	370	U
91-20-3	Naphthalene	81	J
106-47-8	4-Chloroaniline	370	U
87-68-3	Hexachlorobutadiene	370	U
59-50-7	4-Chloro-3-methylphenol	370	U
91-57-6	2-Methylnaphthalene	370	U
77-47-4	Hexachlorocyclopentadiene	370	U
88-06-2	2,4,6-Trichlorophenol	370	U
95-95-4	2,4,5-Trichlorophenol	920	U
91-58-7	2-Chloronaphthalene	370	U
88-74-4	2-Nitroaniline	920	U
131-11-3	Dimethylphthalate	370	U
208-96-8	Acenaphthylene	130	J
606-20-2	2,6-Dinitrotoluene	370	U
99-09-2	3-Nitroaniline	920	U
83-32-9	Acenaphthene	89	J

1F

EPA SAMPLE NO.

TP45'

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Lab Code: CHEM Case No.: L3355 SAS No.: LB12423 SDG No.: MW1

Matrix: (soil/water) SOIL Lab Sample ID: O18

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BS030727.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: 9 decanted: (Y/N) N Date Extracted: 3/1/01

Concentrated Extract Volume: 500 (uL) Date Analyzed: 3/8/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

Number TICs found: 30 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 613-12-7	Anthracene, 2-methyl-	19.03	180	J
2. 2531-84-2	Phenanthrene, 2-methyl-	19.09	170	J
3.	Unknown	19.26	260	J
4. 832-71-3	Phenanthrene, 3-methyl-	19.31	200	J
5. 612-94-2	Naphthalene, 2-phenyl-	19.70	130	J
6. 84-65-1	9,10-Anthracenedione	19.75	120	J
7. 1576-69-8	Phenanthrene, 2,7-dimethyl-	20.07	120	J
8. 3674-66-6	Phenanthrene, 2,5-dimethyl-	20.23	190	J
9. 1576-67-6	Phenanthrene, 3,6-dimethyl-	20.30	170	J
10. 5737-13-3	Cyclopenta(def)phenanthrenon	20.41	130	J
11.	Unknown	20.75	130	J
12. 243-17-4	11H-Benzo[b]fluorene	21.76	180	J
13. 3442-78-2	Pyrene, 2-methyl-	21.97	130	J
14. 3353-12-6	Pyrene, 4-methyl-	22.15	92	J
15. 82-05-3	7H-Benz[de]anthracen-7-one	22.85	130	J
16. 239-35-0	Benzo[b]naphtho[2,1-d]thioph	23.06	98	J
17. 6765-39-5	1-Heptadecene	23.46	130	J
18. 2381-31-9	Benz[a]anthracene, 8-methyl-	24.46	130	J
19.	Unknown	25.17	97	J
20. 629-78-7	Heptadecane	25.44	220	J
21. 4602-84-0	2,6,10-Dodecatrien-1-ol, 3,7	25.60	110	J
22. 192-97-2	Benzo[e]pyrene	25.95	140	J
23. 205-82-3	Benzo[j]fluoranthene	26.30	360	J
24. 112-95-8	Eicosane	26.75	110	J
25. 629-94-7	Heneicosane	27.55	130	J
26. 544-85-4	Dotriacontane	28.47	170	J
27.	Unknown	29.58	200	J
28. 638-68-6	Triacontane	30.90	120	J
29. 7098-21-7	Tritetracontane	32.50	100	J
30.	Unknown	36.20	96	J

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TP66'

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Lab Code: CHEM Case No.: L3355 SAS No.: LB12423 SDG No.: MW1

Matrix: (soil/water) SOIL Lab Sample ID: O19

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BS030723.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: 21 decanted: (Y/N): N Date Extracted: 3/1/01

Concentrated Extract Volume: 500 (uL) Date Analyzed: 3/8/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	420	U
111-44-4	bis(2-Chloroethyl)ether	420	U
95-57-8	2-Chlorophenol	420	U
95-50-1	1,2-Dichlorobenzene	420	U
541-73-1	1,3-Dichlorobenzene	420	U
106-46-7	1,4-Dichlorobenzene	420	U
95-48-7	2-Methylphenol	420	U
108-60-1	2,2'-oxybis(1-Chloropropane)	420	U
65794-96-9	3+4-Methylphenols	420	U
621-64-7	N-Nitroso-di-n-propylamine	420	U
67-72-1	Hexachloroethane	420	U
98-95-3	Nitrobenzene	420	U
78-59-1	Isophorone	420	U
88-75-5	2-Nitrophenol	420	U
105-67-9	2,4-Dimethylphenol	420	U
111-91-1	bis(2-Chloroethoxy)methane	420	U
120-83-2	2,4-Dichlorophenol	420	U
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
131-11-3	Dimethylphthalate	420	U
208-96-8	Acenaphthylene	420	U
606-20-2	2,6-Dinitrotoluene	420	U
99-09-2	3-Nitroaniline	1100	U
83-32-9	Acenaphthene	420	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TP66'

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Lab Code: CHEM Case No.: L3355 SAS No.: LB12423 SDG No.: MW1

Matrix: (soil/water) SOIL Lab Sample ID: O19

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BS030723.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: 21 decanted: (Y/N): N Date Extracted: 3/1/01

Concentrated Extract Volume: 500 (uL) Date Analyzed: 3/8/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
51-28-5	2,4-Dinitrophenol	1100	U
100-02-7	4-Nitrophenol	1100	U
132-64-9	Dibenzofuran	420	U
121-14-2	2,4-Dinitrotoluene	420	U
84-66-2	Diethylphthalate	420	U
7005-72-3	4-Chlorophenyl-phenylether	420	U
86-73-7	Fluorene	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-phenylether	420	U
118-74-1	Hexachlorobenzene	420	U
87-86-5	Pentachlorophenol	1100	U
85-01-8	Phenanthrene	420	U
120-12-7	Anthracene	420	U
86-74-8	Carbazole	420	U
84-74-2	Di-n-butylphthalate	420	U
206-44-0	Fluoranthene	420	U
129-00-0	Pyrene	420	U
85-68-7	Butylbenzylphthalate	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	Dibenzo(a,h)anthracene	420	U
191-24-2	Benzo(g,h,i)perylene	420	U

(1) - Cannot be separated from Diphenylamine

1F

EPA SAMPLE NO.

TP66'

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Lab Code: CHEM Case No.: L3355 SAS No.: LB12423 SDG No.: MW1

Matrix: (soil/water) SOIL Lab Sample ID: O19

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BS030723.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: 21 decanted: (Y/N) N Date Extracted: 3/1/01

Concentrated Extract Volume: 500 (uL) Date Analyzed: 3/8/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

Number TICs found: 12 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 629-96-9	1-Eicosanol	23.46	220	J
2. 629-78-7	Heptadecane	25.44	210	J
3. 629-97-0	Docosane	26.06	200	J
4. 629-94-7	Heneicosane	26.75	330	J
5. 630-02-4	Octacosane	27.54	490	J
6. 7098-22-8	Tetratetracontane	28.48	570	J
7. 630-03-5	Nonacosane	29.59	650	J
8. 630-06-8	Hexatriacontane	30.92	700	J
9. 638-68-6	Triacontane	32.52	660	J
10.	Unknown	34.47	620	J
11. 18349-11-6	Toluene, 4-chloro-2-fluoro-5	36.21	120	J
12. 3386-33-2	Octadecane, 1-chloro-	36.84	540	J
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B6'6'

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Lab Code: CHEM Case No.: L3355 SAS No.: LB12321 SDG No.: MW1

Matrix: (soil/water) SOIL Lab Sample ID: O23

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BS030241.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: 11 decanted: (Y/N): N Date Extracted: 3/1/01

Concentrated Extract Volume: 500 (uL) Date Analyzed: 3/3/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	370	U
95-57-8	2-Chlorophenol	370	U
95-48-7	2-Methylphenol	370	U
65794-96-9	3+4-Methylphenols	370	U
88-75-5	2-Nitrophenol	370	U
105-67-9	2,4-Dimethylphenol	370	U
120-83-2	2,4-Dichlorophenol	370	U
59-50-7	4-Chloro-3-methylphenol	370	U
88-06-2	2,4,6-Trichlorophenol	370	U
95-95-4	2,4,5-Trichlorophenol	940	U
51-28-5	2,4-Dinitrophenol	940	U
100-02-7	4-Nitrophenol	940	U
534-52-1	4,6-Dinitro-2-methylphenol	940	U
87-86-5	Pentachlorophenol	940	U

1F

EPA SAMPLE NO.

B6'6'

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Lab Code: CHEM Case No.: L3355 SAS No.: LB12321 SDG No.: MW1

Matrix: (soil/water) SOIL Lab Sample ID: O23

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BS030241.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: 11 decanted: (Y/N) N Date Extracted: 3/1/01

Concentrated Extract Volume: 500 (uL) Date Analyzed: 3/3/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

Number TICs found: 18 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Unknown	8.05	110	J
2.	Unknown	10.44	100	J
3. 506-52-5	1-Hexacosanol	23.49	200	J
4. 54699-29-5	Cyclohexane, (ethoxymethoxy)	23.99	120	J
5. 629-78-7	Heptadecane	24.84	140	J
6. 646-31-1	Tetracosane	25.46	120	J
7. 629-99-2	Pentacosane	26.09	220	J
8. 22393-88-0	Oleic acid, eicosyl ester	26.45	83	J
9. 630-03-5	Nonacosane	26.78	250	J
10. 629-97-0	Docosane	27.58	280	J
11. 7098-21-7	Tritetracontane	28.52	310	J
12.	Unknown	28.90	84	J
13. 629-94-7	Heneicosane	29.64	350	J
14. 630-06-8	Hexatriacontane	30.97	330	J
15. 14167-59-0	Tetratriacontane	32.59	330	J
16.	Unknown	34.56	310	J
17.	Unknown	36.33	170	J
18. 638-68-6	Triacontane	36.93	220	J
19.				
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B7'6'

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Lab Code: CHEM Case No.: L3355 SAS No.: LB12321 SDG No.: MW1

Matrix: (soil/water) SOIL Lab Sample ID: O24

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BS030240.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: 15 decanted: (Y/N): N Date Extracted: 3/1/01

Concentrated Extract Volume: 500 (uL) Date Analyzed: 3/3/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	390	U
95-57-8	2-Chlorophenol	390	U
95-48-7	2-Methylphenol	390	U
65794-96-9	3+4-Methylphenols	390	U
88-75-5	2-Nitrophenol	390	U
105-67-9	2,4-Dimethylphenol	390	U
120-83-2	2,4-Dichlorophenol	390	U
59-50-7	4-Chloro-3-methylphenol	390	U
88-06-2	2,4,6-Trichlorophenol	390	U
95-95-4	2,4,5-Trichlorophenol	980	U
51-28-5	2,4-Dinitrophenol	980	U
100-02-7	4-Nitrophenol	980	U
534-52-1	4,6-Dinitro-2-methylphenol	980	U
87-86-5	Pentachlorophenol	980	U

1F

EPA SAMPLE NO.

B7'6'

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Lab Code: CHEM Case No.: L3355 SAS No.: LB12321 SDG No.: MW1

Matrix: (soil/water) SOIL Lab Sample ID: O24

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BS030240.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: 15 decanted: (Y/N) N Date Extracted: 3/1/01

Concentrated Extract Volume: 500 (uL) Date Analyzed: 3/3/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

Number TICs found: 13 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 1454-85-9	1-Heptadecanol	23.49	260	J
2. 629-99-2	Pentacosane	24.84	150	J
3.	Unknown	25.47	230	J
4. 629-97-0	Docosane	26.09	350	J
5. 646-31-1	Tetracosane	26.78	370	J
6. 630-03-5	Nonacosane	27.59	500	J
7. 7098-22-8	Tetratetracontane	28.52	600	J
8. 544-85-4	Dotriacontane	29.64	630	J
9. 629-94-7	Heneicosane	30.98	620	J
10.	10-Methylnonadecane	32.59	620	J
11. 7098-21-7	Tritetracontane	34.56	530	J
12.	Unknown	36.33	100	J
13. 630-06-8	Hexatriacontane	36.95	420	J
14.				
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B8'6'

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Lab Code: CHEM Case No.: L3355 SAS No.: LB12361 SDG No.: MW1

Matrix: (soil/water) SOIL Lab Sample ID: O25

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BS030626.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: 16 decanted: (Y/N): N Date Extracted: 3/1/01

Concentrated Extract Volume: 500 (uL) Date Analyzed: 3/7/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	400	U
111-44-4	bis(2-Chloroethyl)ether	400	U
95-57-8	2-Chlorophenol	400	U
95-50-1	1,2-Dichlorobenzene	400	U
541-73-1	1,3-Dichlorobenzene	400	U
106-46-7	1,4-Dichlorobenzene	400	U
95-48-7	2-Methylphenol	400	U
108-60-1	2,2'-oxybis(1-Chloropropane)	400	U
65794-96-9	3+4-Methylphenols	400	U
621-64-7	N-Nitroso-di-n-propylamine	400	U
67-72-1	Hexachloroethane	400	U
98-95-3	Nitrobenzene	400	U
78-59-1	Isophorone	400	U
88-75-5	2-Nitrophenol	400	U
105-67-9	2,4-Dimethylphenol	400	U
111-91-1	bis(2-Chloroethoxy)methane	400	U
120-83-2	2,4-Dichlorophenol	400	U
120-82-1	1,2,4-Trichlorobenzene	400	U
91-20-3	Naphthalene	400	U
106-47-8	4-Chloroaniline	400	U
87-68-3	Hexachlorobutadiene	400	U
59-50-7	4-Chloro-3-methylphenol	400	U
91-57-6	2-Methylnaphthalene	400	U
77-47-4	Hexachlorocyclopentadiene	400	U
88-06-2	2,4,6-Trichlorophenol	400	U
95-95-4	2,4,5-Trichlorophenol	990	U
91-58-7	2-Chloronaphthalene	400	U
88-74-4	2-Nitroaniline	990	U
131-11-3	Dimethylphthalate	400	U
208-96-8	Acenaphthylene	400	U
606-20-2	2,6-Dinitrotoluene	400	U
99-09-2	3-Nitroaniline	990	U
83-32-9	Acenaphthene	400	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B8'6'

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Lab Code: CHEM Case No.: L3355 SAS No.: LB12361 SDG No.: MW1

Matrix: (soil/water) SOIL Lab Sample ID: O25

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BS030626.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: 16 decanted: (Y/N): N Date Extracted: 3/1/01

Concentrated Extract Volume: 500 (uL) Date Analyzed: 3/7/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
51-28-5	2,4-Dinitrophenol	990	U
100-02-7	4-Nitrophenol	990	U
132-64-9	Dibenzofuran	400	U
121-14-2	2,4-Dinitrotoluene	400	U
84-66-2	Diethylphthalate	400	U
7005-72-3	4-Chlorophenyl-phenylether	400	U
86-73-7	Fluorene	400	U
100-01-6	4-Nitroaniline	990	U
534-52-1	4,6-Dinitro-2-methylphenol	990	U
86-30-6	N-Nitrosodiphenylamine	400	U
101-55-3	4-Bromophenyl-phenylether	400	U
118-74-1	Hexachlorobenzene	400	U
87-86-5	Pentachlorophenol	990	U
85-01-8	Phenanthrene	400	U
120-12-7	Anthracene	400	U
86-74-8	Carbazole	400	U
84-74-2	Di-n-butylphthalate	100	J
206-44-0	Fluoranthene	55	J
129-00-0	Pyrene	50	J
85-68-7	Butylbenzylphthalate	400	U
91-94-1	3,3'-Dichlorobenzidine	400	U
56-55-3	Benzo(a)anthracene	400	U
218-01-9	Chrysene	400	U
117-81-7	bis(2-Ethylhexyl)phthalate	400	U
117-84-0	Di-n-octyl phthalate	400	U
205-99-2	Benzo(b)fluoranthene	400	U
207-08-9	Benzo(k)fluoranthene	400	U
50-32-8	Benzo(a)pyrene	400	U
193-39-5	Indeno(1,2,3-cd)pyrene	400	U
53-70-3	Dibenzo(a,h)anthracene	400	U
191-24-2	Benzo(g,h,i)perylene	400	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
B8'6'

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Lab Code: CHEM Case No.: L3355 SAS No.: LB12361 SDG No.: MW1

Matrix: (soil/water) SOIL Lab Sample ID: O25

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BS030626.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: 16 decanted: (Y/N) N Date Extracted: 3/1/01

Concentrated Extract Volume: 500 (uL) Date Analyzed: 3/7/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

Number TICs found: 19 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 79-34-5	Ethane, 1,1,2,2-tetrachloro-	6.59	130	J
2. 19047-85-9	Phosphonic acid, dioctadecyl	18.66	84	J
3. 60-33-3	9,12-Octadecadienoic acid (Z	20.84	120	J
4. 2136-70-1	Ethanol, 2-(tetradecyloxy)-	23.51	260	J
5. 629-99-2	Pentacosane	24.84	160	J
6. 629-94-7	Heneicosane	25.47	260	J
7.	Unknown	25.79	110	J
8. 55045-08-4	Dodecane, 2-methyl-6-propyl-	26.09	490	J
9. 7206-19-1	3-Octadecene, (E)-	26.45	120	J
10. 629-97-0	Docosane	26.78	430	J
11. 638-68-6	Triacontane	27.58	520	J
12.	Unknown	27.71	200	J
13. 629-78-7	Heptadecane	28.52	660	J
14. 7098-22-8	Tetratetracontane	29.63	610	J
15. 544-85-4	Dotriacontane	30.97	590	J
16. 14167-59-0	Tetratriacontane	32.58	450	J
17. 7098-21-7	Tritetracontane	34.55	350	J
18.	Unknown	36.33	95	J
19. 14167-59-0	Tetratriacontane	36.91	230	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B8D'6'

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Lab Code: CHEM Case No.: L3355 SAS No.: LB12361 SDG No.: MW1

Matrix: (soil/water) SOIL Lab Sample ID: O26

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BS030627.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: 9 decanted: (Y/N): N Date Extracted: 3/1/01

Concentrated Extract Volume: 500 (uL) Date Analyzed: 3/7/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	370	U
111-44-4	bis(2-Chloroethyl)ether	370	U
95-57-8	2-Chlorophenol	370	U
95-50-1	1,2-Dichlorobenzene	370	U
541-73-1	1,3-Dichlorobenzene	370	U
106-46-7	1,4-Dichlorobenzene	370	U
95-48-7	2-Methylphenol	370	U
108-60-1	2,2'-oxybis(1-Chloropropane)	370	U
65794-96-9	3+4-Methylphenols	370	U
621-64-7	N-Nitroso-di-n-propylamine	370	U
67-72-1	Hexachloroethane	370	U
98-95-3	Nitrobenzene	370	U
78-59-1	Isophorone	370	U
88-75-5	2-Nitrophenol	370	U
105-67-9	2,4-Dimethylphenol	370	U
111-91-1	bis(2-Chloroethoxy)methane	370	U
120-83-2	2,4-Dichlorophenol	370	U
120-82-1	1,2,4-Trichlorobenzene	370	U
91-20-3	Naphthalene	370	U
106-47-8	4-Chloroaniline	370	U
87-68-3	Hexachlorobutadiene	370	U
59-50-7	4-Chloro-3-methylphenol	370	U
91-57-6	2-Methylnaphthalene	370	U
77-47-4	Hexachlorocyclopentadiene	370	U
88-06-2	2,4,6-Trichlorophenol	370	U
95-95-4	2,4,5-Trichlorophenol	920	U
91-58-7	2-Chloronaphthalene	370	U
88-74-4	2-Nitroaniline	920	U
131-11-3	Dimethylphthalate	370	U
208-96-8	Acenaphthylene	370	U
606-20-2	2,6-Dinitrotoluene	370	U
99-09-2	3-Nitroaniline	920	U
83-32-9	Acenaphthene	370	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B8D'6'

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Lab Code: CHEM Case No.: L3355 SAS No.: LB12361 SDG No.: MW1

Matrix: (soil/water) SOIL Lab Sample ID: O26

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BS030627.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: 9 decanted: (Y/N): N Date Extracted: 3/1/01

Concentrated Extract Volume: 500 (uL) Date Analyzed: 3/7/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
51-28-5	2,4-Dinitrophenol	920	U
100-02-7	4-Nitrophenol	920	U
132-64-9	Dibenzofuran	370	U
121-14-2	2,4-Dinitrotoluene	370	U
84-66-2	Diethylphthalate	370	U
7005-72-3	4-Chlorophenyl-phenylether	370	U
86-73-7	Fluorene	370	U
100-01-6	4-Nitroaniline	920	U
534-52-1	4,6-Dinitro-2-methylphenol	920	U
86-30-6	N-Nitrosodiphenylamine	370	U
101-55-3	4-Bromophenyl-phenylether	370	U
118-74-1	Hexachlorobenzene	370	U
87-86-5	Pentachlorophenol	920	U
85-01-8	Phenanthrene	62	J
120-12-7	Anthracene	370	U
86-74-8	Carbazole	370	U
84-74-2	Di-n-butylphthalate	370	U
206-44-0	Fluoranthene	95	J
129-00-0	Pyrene	100	J
85-68-7	Butylbenzylphthalate	370	U
91-94-1	3,3'-Dichlorobenzidine	370	U
56-55-3	Benzo(a)anthracene	40	J
218-01-9	Chrysene	55	J
117-81-7	bis(2-Ethylhexyl)phthalate	370	U
117-84-0	Di-n-octyl phthalate	370	U
205-99-2	Benzo(b)fluoranthene	65	J
207-08-9	Benzo(k)fluoranthene	370	U
50-32-8	Benzo(a)pyrene	38	J
193-39-5	Indeno(1,2,3-cd)pyrene	370	U
53-70-3	Dibenzo(a,h)anthracene	370	U
191-24-2	Benzo(g,h,i)perylene	370	U

(1) - Cannot be separated from Diphenylamine

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EPA SAMPLE NO.

B8D'6'

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Lab Code: CHEM Case No.: L3355 SAS No.: LB12361 SDG No.: MW1

Matrix: (soil/water) SOIL Lab Sample ID: O26

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BS030627.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: 9 decanted: (Y/N) N Date Extracted: 3/1/01

Concentrated Extract Volume: 500 (uL) Date Analyzed: 3/7/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

Number TICs found: 20 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 121-00-6	3-tert-Butyl-4-hydroxyanisol	14.47	87	J
2. 57-10-3	Hexadecanoic acid	19.38	240	J
3. 60-33-3	9,12-Octadecadienoic acid (Z	20.83	95	J
4.	Unknown	22.88	75	J
5. 629-96-9	1-Eicosanol	23.49	260	J
6. 629-62-9	Pentadecane	24.83	150	J
7. 638-67-5	Tricosane	25.47	310	J
8. 4602-84-0	2,6,10-Dodecatrien-1-ol, 3,7	25.62	440	J
9. 629-78-7	Heptadecane	26.10	180	J
10. 192-97-2	Benzo[e]pyrene	26.33	100	J
11. 54833-48-6	Heptadecane, 2,6,10,15-tetra	26.78	140	J
12.	Unknown	27.15	110	J
13. 7098-22-8	Tetratetracontane	27.58	250	J
14. 53584-60-4	28-Nor-17.alpha.(H)-hopane	27.73	340	J
15. 112-95-8	Eicosane	28.51	380	J
16.	Unknown	29.55	160	J
17.	Unknown	29.64	250	J
18. 593-49-7	Heptacosane	30.96	140	J
19.	Unknown	32.56	120	J
20.	Unknown	34.50	84	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B8D'6'RE

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Lab Code: CHEM Case No.: L3355 SAS No.: LB12361 SDG No.: MW1

Matrix: (soil/water) SOIL Lab Sample ID: O26RE

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BS030732.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: 9 decanted: (Y/N): N Date Extracted: 3/1/01

Concentrated Extract Volume: 500 (uL) Date Analyzed: 3/8/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	370	U
111-44-4	bis(2-Chloroethyl)ether	370	U
95-57-8	2-Chlorophenol	370	U
95-50-1	1,2-Dichlorobenzene	370	U
541-73-1	1,3-Dichlorobenzene	370	U
106-46-7	1,4-Dichlorobenzene	370	U
95-48-7	2-Methylphenol	370	U
108-60-1	2,2'-oxybis(1-Chloropropane)	370	U
65794-96-9	3+4-Methylphenols	370	U
621-64-7	N-Nitroso-di-n-propylamine	370	U
67-72-1	Hexachloroethane	370	U
98-95-3	Nitrobenzene	370	U
78-59-1	Isophorone	370	U
88-75-5	2-Nitrophenol	370	U
105-67-9	2,4-Dimethylphenol	370	U
111-91-1	bis(2-Chloroethoxy)methane	370	U
120-83-2	2,4-Dichlorophenol	370	U
120-82-1	1,2,4-Trichlorobenzene	370	U
91-20-3	Naphthalene	370	U
106-47-8	4-Chloroaniline	370	U
87-68-3	Hexachlorobutadiene	370	U
59-50-7	4-Chloro-3-methylphenol	370	U
91-57-6	2-Methylnaphthalene	370	U
77-47-4	Hexachlorocyclopentadiene	370	U
88-06-2	2,4,6-Trichlorophenol	370	U
95-95-4	2,4,5-Trichlorophenol	920	U
91-58-7	2-Chloronaphthalene	370	U
88-74-4	2-Nitroaniline	920	U
131-11-3	Dimethylphthalate	370	U
208-96-8	Acenaphthylene	370	U
606-20-2	2,6-Dinitrotoluene	370	U
99-09-2	3-Nitroaniline	920	U
83-32-9	Acenaphthene	370	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B8D'6'RE

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Lab Code: CHEM Case No.: L3355 SAS No.: LB12361 SDG No.: MW1

Matrix: (soil/water) SOIL Lab Sample ID: O26RE

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BS030732.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: 9 decanted: (Y/N): N Date Extracted: 3/1/01

Concentrated Extract Volume: 500 (uL) Date Analyzed: 3/8/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
51-28-5	2,4-Dinitrophenol	920	U
100-02-7	4-Nitrophenol	920	U
132-64-9	Dibenzofuran	370	U
121-14-2	2,4-Dinitrotoluene	370	U
84-66-2	Diethylphthalate	370	U
7005-72-3	4-Chlorophenyl-phenylether	370	U
86-73-7	Fluorene	370	U
100-01-6	4-Nitroaniline	920	U
534-52-1	4,6-Dinitro-2-methylphenol	920	U
86-30-6	N-Nitrosodiphenylamine	370	U
101-55-3	4-Bromophenyl-phenylether	370	U
118-74-1	Hexachlorobenzene	370	U
87-86-5	Pentachlorophenol	920	U
85-01-8	Phenanthrene	62	J
120-12-7	Anthracene	370	U
86-74-8	Carbazole	370	U
84-74-2	Di-n-butylphthalate	370	U
206-44-0	Fluoranthene	100	J
129-00-0	Pyrene	100	J
85-68-7	Butylbenzylphthalate	370	U
91-94-1	3,3'-Dichlorobenzidine	370	U
56-55-3	Benzo(a)anthracene	39	J
218-01-9	Chrysene	51	J
117-81-7	bis(2-Ethylhexyl)phthalate	370	U
117-84-0	Di-n-octyl phthalate	370	U
205-99-2	Benzo(b)fluoranthene	75	J
207-08-9	Benzo(k)fluoranthene	370	U
50-32-8	Benzo(a)pyrene	39	J
193-39-5	Indeno(1,2,3-cd)pyrene	370	U
53-70-3	Dibenzo(a,h)anthracene	370	U
191-24-2	Benzo(g,h,i)perylene	370	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B8D'6'RE

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Lab Code: CHEM Case No.: L3355 SAS No.: LB12361 SDG No.: MW1

Matrix: (soil/water) SOIL Lab Sample ID: O26RE

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BS030732.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: 9 decanted: (Y/N) N Date Extracted: 3/1/01

Concentrated Extract Volume: 500 (uL) Date Analyzed: 3/8/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

Number TICs found: 14 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 57-10-3	Hexadecanoic acid	19.35	190	J
2. 74685-30-6	5-Eicosene, (E)-	23.48	240	J
3.	Unknown	25.41	120	J
4. 629-92-5	Nonadecane	25.44	190	J
5. 36237-66-8	6,10,14-Hexadecatrien-1-ol,	25.59	350	J
6. 638-67-5	Tricosane	26.07	180	J
7. 629-97-0	Docosane	26.75	240	J
8. 629-94-7	Heneicosane	27.55	210	J
9. 55401-75-7	Anthracene, 9-dodecyltetrade	27.69	200	J
10. 629-78-7	Heptadecane	28.45	96	J
11.	Unknown	28.47	210	J
12. 593-45-3	Octadecane	29.58	130	J
13. 3386-33-2	Octadecane, 1-chloro-	30.90	120	J
14. 544-85-4	Dotriacontane	32.49	77	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B13'6'

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Lab Code: CHEM Case No.: L3355 SAS No.: LB12321 SDG No.: MW1

Matrix: (soil/water) SOIL Lab Sample ID: O27

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BS030247.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: 17 decanted: (Y/N): N Date Extracted: 3/1/01

Concentrated Extract Volume: 500 (uL) Date Analyzed: 3/4/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	400	U
111-44-4	bis(2-Chloroethyl)ether	400	U
95-57-8	2-Chlorophenol	400	U
95-50-1	1,2-Dichlorobenzene	400	U
541-73-1	1,3-Dichlorobenzene	400	U
106-46-7	1,4-Dichlorobenzene	400	U
95-48-7	2-Methylphenol	400	U
108-60-1	2,2'-oxybis(1-Chloropropane)	400	U
65794-96-9	3+4-Methylphenols	400	U
621-64-7	N-Nitroso-di-n-propylamine	400	U
67-72-1	Hexachloroethane	400	U
98-95-3	Nitrobenzene	400	U
78-59-1	Isophorone	400	U
88-75-5	2-Nitrophenol	400	U
105-67-9	2,4-Dimethylphenol	400	U
111-91-1	bis(2-Chloroethoxy)methane	400	U
120-83-2	2,4-Dichlorophenol	400	U
120-82-1	1,2,4-Trichlorobenzene	400	U
91-20-3	Naphthalene	400	U
106-47-8	4-Chloroaniline	400	U
87-68-3	Hexachlorobutadiene	400	U
59-50-7	4-Chloro-3-methylphenol	400	U
91-57-6	2-Methylnaphthalene	400	U
77-47-4	Hexachlorocyclopentadiene	400	U
88-06-2	2,4,6-Trichlorophenol	400	U
95-95-4	2,4,5-Trichlorophenol	1000	U
91-58-7	2-Chloronaphthalene	400	U
88-74-4	2-Nitroaniline	1000	U
131-11-3	Dimethylphthalate	400	U
208-96-8	Acenaphthylene	400	U
606-20-2	2,6-Dinitrotoluene	400	U
99-09-2	3-Nitroaniline	1000	U
83-32-9	Acenaphthene	400	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B13'6'

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Lab Code: CHEM Case No.: L3355 SAS No.: LB12321 SDG No.: MW1

Matrix: (soil/water) SOIL Lab Sample ID: O27

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BS030247.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: 17 decanted: (Y/N): N Date Extracted: 3/1/01

Concentrated Extract Volume: 500 (uL) Date Analyzed: 3/4/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
51-28-5	2,4-Dinitrophenol	1000	U
100-02-7	4-Nitrophenol	1000	U
132-64-9	Dibenzofuran	400	U
121-14-2	2,4-Dinitrotoluene	400	U
84-66-2	Diethylphthalate	400	U
7005-72-3	4-Chlorophenyl-phenylether	400	U
86-73-7	Fluorene	400	U
100-01-6	4-Nitroaniline	1000	U
534-52-1	4,6-Dinitro-2-methylphenol	1000	U
86-30-6	N-Nitrosodiphenylamine	400	U
101-55-3	4-Bromophenyl-phenylether	400	U
118-74-1	Hexachlorobenzene	400	U
87-86-5	Pentachlorophenol	1000	U
85-01-8	Phenanthrene	400	U
120-12-7	Anthracene	400	U
86-74-8	Carbazole	400	U
84-74-2	Di-n-butylphthalate	140	J
206-44-0	Fluoranthene	400	U
129-00-0	Pyrene	400	U
85-68-7	Butylbenzylphthalate	400	U
91-94-1	3,3'-Dichlorobenzidine	400	U
56-55-3	Benzo(a)anthracene	400	U
218-01-9	Chrysene	400	U
117-81-7	bis(2-Ethylhexyl)phthalate	400	U
117-84-0	Di-n-octyl phthalate	400	U
205-99-2	Benzo(b)fluoranthene	400	U
207-08-9	Benzo(k)fluoranthene	400	U
50-32-8	Benzo(a)pyrene	400	U
193-39-5	Indeno(1,2,3-cd)pyrene	400	U
53-70-3	Dibenzo(a,h)anthracene	400	U
191-24-2	Benzo(g,h,i)perylene	400	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B13'6'

Lab Name: CHEMTECH Contract: IVI ENVIRONMENTAL

Lab Code: CHEM Case No.: L3355 SAS No.: LB12321 SDG No.: MW1

Matrix: (soil/water) SOIL Lab Sample ID: O27

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BS030247.D

Level: (low/med) LOW Date Received: 2/27/01

% Moisture: 17 decanted: (Y/N) N Date Extracted: 3/1/01

Concentrated Extract Volume: 500 (uL) Date Analyzed: 3/4/01

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

Number TICs found: 12 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 112-92-5	1-Octadecanol	18.67	100	J
2. 4570-41-6	2-Benzoxazolamine	19.95	150	J
3. 1454-84-8	1-Nonadecanol	20.43	330	J
4. 593-03-3	3-Hexadecanol	21.07	140	J
5. 6624-79-9	1-Dotriacontanol	23.50	200	J
6. 638-68-6	Triacontane	26.09	83	J
7. 630-06-8	Hexatriacontane	26.78	99	J
8. 7098-21-7	Tritetracontane	27.59	92	J
9. 14167-59-0	Tetratriacontane	28.52	92	J
10. 630-07-9	Pentatriacontane	29.62	100	J
11.	Unknown	30.97	88	J
12.	Unknown	32.57	84	J
13.				
14.				
15.				
16.				
17.				
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U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW1

Lab Name: CHEMTECH EDISON Contract: 68-W00-088

Lab Code: CHEMED Case No.: SAS No.: SDG No.: L3355

Matrix (soil/water): WATER Lab Sample ID: L3355-01 S

Level (low/med): LOW Date Received: 02/27/01

% 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	11400		N	P
7440-36-0	Antimony	8.9	B		P
7440-38-2	Arsenic	29.3			P
7440-39-3	Barium	342			P
7440-41-7	Beryllium	0.95	B		P
7440-43-9	Cadmium	0.86	B		P
7440-70-2	Calcium	105000			P
7440-47-3	Chromium	120			P
7440-48-4	Cobalt	7.2	B		P
7440-50-8	Copper	42.8			P
7439-89-6	Iron	60300			P
7439-92-1	Lead	35.4			P
7439-95-4	Magnesium	17200			P
7439-96-5	Manganese	697			P
7439-97-6	Mercury	1.0			CV
7440-02-0	Nickel	25.9	B		P
7440-09-7	Potassium	4110	B	E	P
7782-49-2	Selenium	7.4			P
7440-22-4	Silver	1.6	U		P
7440-23-5	Sodium	37600			P
7440-28-0	Thallium	5.2	U		P
7440-62-2	Vanadium	43.6	B		P
7440-66-6	Zinc	224			P

Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B6

Lab Name: CHEMTECH EDISON Contract: 68-W00-088

Lab Code: CHEMED Case No.: SAS No.: SDG No.: L3355

Matrix (soil/water): WATER Lab Sample ID: L3355-02 S

Level (low/med): LOW Date Received: 02/27/01

% 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	26400		N	P
7440-36-0	Antimony	7.5	U		P
7440-38-2	Arsenic	6.4	B		P
7440-39-3	Barium	153	B		P
7440-41-7	Beryllium	1.8	B		P
7440-43-9	Cadmium	1.5	B		P
7440-70-2	Calcium	51700			P
7440-47-3	Chromium	84.4			P
7440-48-4	Cobalt	37.0	B		P
7440-50-8	Copper	38.9			P
7439-89-6	Iron	51500			P
7439-92-1	Lead	40.9			P
7439-95-4	Magnesium	19900			P
7439-96-5	Manganese	1080			P
7439-97-6	Mercury	0.25			CV
7440-02-0	Nickel	79.4			P
7440-09-7	Potassium	11500		E	P
7782-49-2	Selenium	4.8	U		P
7440-22-4	Silver	1.6	U		P
7440-23-5	Sodium	37200			P
7440-28-0	Thallium	7.6	B		P
7440-62-2	Vanadium	44.4	B		P
7440-66-6	Zinc	234			P

Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

B7

Lab Name: CHEMTECH EDISON Contract: 68-W00-088

Lab Code: CHEMED Case No.: SAS No.: SDG No.: L3355

Matrix (soil/water): WATER Lab Sample ID: L3355-03 S

Level (low/med): LOW Date Received: 02/27/01

% 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	6530		N	P
7440-36-0	Antimony	7.5	U		P
7440-38-2	Arsenic	4.5	U		P
7440-39-3	Barium	138	B		P
7440-41-7	Beryllium	0.44	B		P
7440-43-9	Cadmium	0.50	U		P
7440-70-2	Calcium	54800			P
7440-47-3	Chromium	14.6			P
7440-48-4	Cobalt	4.9	B		P
7440-50-8	Copper	10.0	B		P
7439-89-6	Iron	10500			P
7439-92-1	Lead	12.0			P
7439-95-4	Magnesium	6260			P
7439-96-5	Manganese	181			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	15.6	B		P
7440-09-7	Potassium	3690	B	E	P
7782-49-2	Selenium	4.8	U		P
7440-22-4	Silver	1.6	U		P
7440-23-5	Sodium	6380			P
7440-28-0	Thallium	5.2	U		P
7440-62-2	Vanadium	10.9	B		P
7440-66-6	Zinc	60.9			P

Color Before: COLORLESS Clarity Before: CLOUDY Texture:

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

B8

Lab Name: CHEMTECH EDISON Contract: 68-W00-088

Lab Code: CHEMED Case No.: SAS No.: SDG No.: L3355

Matrix (soil/water): WATER Lab Sample ID: L3355-04 S

Level (low/med): LOW Date Received: 02/27/01

% 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	170000		N	P
7440-36-0	Antimony	7.5	U		P
7440-38-2	Arsenic	49.3			P
7440-39-3	Barium	634			P
7440-41-7	Beryllium	8.2			P
7440-43-9	Cadmium	1.3	B		P
7440-70-2	Calcium	56400			P
7440-47-3	Chromium	2040			P
7440-48-4	Cobalt	132			P
7440-50-8	Copper	589			P
7439-89-6	Iron	503000			P
7439-92-1	Lead	620			P
7439-95-4	Magnesium	55600			P
7439-96-5	Manganese	5330			P
7439-97-6	Mercury	2.2			CV
7440-02-0	Nickel	904			P
7440-09-7	Potassium	19600		E	P
7782-49-2	Selenium	11.2			P
7440-22-4	Silver	1.6	U		P
7440-23-5	Sodium	30400			P
7440-28-0	Thallium	21.1			P
7440-62-2	Vanadium	187			P
7440-66-6	Zinc	8730			P

Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B9

Lab Name: CHEMTECH EDISON Contract: 68-W00-088

Lab Code: CHEMED Case No.: SAS No.: SDG No.: L3355

Matrix (soil/water): WATER Lab Sample ID: L3355-05 S

Level (low/med): LOW Date Received: 02/27/01

% 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	222000		N	P
7440-36-0	Antimony	7.5	U		P
7440-38-2	Arsenic	60.8			P
7440-39-3	Barium	1240			P
7440-41-7	Beryllium	23.9			P
7440-43-9	Cadmium	3.7	B		P
7440-70-2	Calcium	90000			P
7440-47-3	Chromium	518			P
7440-48-4	Cobalt	190			P
7440-50-8	Copper	358			P
7439-89-6	Iron	313000			P
7439-92-1	Lead	425			P
7439-95-4	Magnesium	96600			P
7439-96-5	Manganese	4700			P
7439-97-6	Mercury	0.48			CV
7440-02-0	Nickel	495			P
7440-09-7	Potassium	22500		E	P
7782-49-2	Selenium	34.3			P
7440-22-4	Silver	1.6	U		P
7440-23-5	Sodium	72800			P
7440-28-0	Thallium	22.2			P
7440-62-2	Vanadium	301			P
7440-66-6	Zinc	2170			P

Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: BROWN Clarity After: CLEAR Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B10

Lab Name: CHEMTECH EDISON Contract: 68-W00-088

Lab Code: CHEMED Case No.: SAS No.: SDG No.: L3355

Matrix (soil/water): WATER Lab Sample ID: L3355-06 S

Level (low/med): LOW Date Received: 02/27/01

% 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	3590		N	P
7440-36-0	Antimony	7.5	U		P
7440-38-2	Arsenic	6.7	B		P
7440-39-3	Barium	48.8	B		P
7440-41-7	Beryllium	0.20	B		P
7440-43-9	Cadmium	0.50	U		P
7440-70-2	Calcium	27200			P
7440-47-3	Chromium	6.3	B		P
7440-48-4	Cobalt	3.4	B		P
7440-50-8	Copper	6.8	B		P
7439-89-6	Iron	5710			P
7439-92-1	Lead	8.1			P
7439-95-4	Magnesium	5450			P
7439-96-5	Manganese	313			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	9.5	B		P
7440-09-7	Potassium	7500		E	P
7782-49-2	Selenium	4.8	U		P
7440-22-4	Silver	1.6	U		P
7440-23-5	Sodium	22200			P
7440-28-0	Thallium	8.1	B		P
7440-62-2	Vanadium	4.5	B		P
7440-66-6	Zinc	45.3			P

Color Before: COLORLESS Clarity Before: CLOUDY Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

B10D

Lab Name: CHEMTECH EDISON Contract: 68-W00-088

Lab Code: CHEMED Case No.: SAS No.: SDG No.: L3355

Matrix (soil/water): WATER Lab Sample ID: L3355-07 S

Level (low/med): LOW Date Received: 02/27/01

% 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	3130		N	P
7440-36-0	Antimony	7.5	U		P
7440-38-2	Arsenic	13.2			P
7440-39-3	Barium	45.6	B		P
7440-41-7	Beryllium	0.16	B		P
7440-43-9	Cadmium	0.50	U		P
7440-70-2	Calcium	26000			P
7440-47-3	Chromium	4.8	B		P
7440-48-4	Cobalt	2.3	B		P
7440-50-8	Copper	5.5	B		P
7439-89-6	Iron	4690			P
7439-92-1	Lead	7.1			P
7439-95-4	Magnesium	5070			P
7439-96-5	Manganese	286			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	8.1	B		P
7440-09-7	Potassium	7150		E	P
7782-49-2	Selenium	4.8	U		P
7440-22-4	Silver	1.6	U		P
7440-23-5	Sodium	21200			P
7440-28-0	Thallium	5.2	U		P
7440-62-2	Vanadium	3.5	B		P
7440-66-6	Zinc	34.9			P

Color Before: COLORLESS Clarity Before: CLOUDY Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B11

Lab Name: CHEMTECH EDISON Contract: 68-W00-088

Lab Code: CHEMED Case No.: SAS No.: SDG No.: L3355

Matrix (soil/water): WATER Lab Sample ID: L3355-08 S

Level (low/med): LOW Date Received: 02/27/01

% 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	24700		N	P
7440-36-0	Antimony	7.5	U		P
7440-38-2	Arsenic	11.9			P
7440-39-3	Barium	136	B		P
7440-41-7	Beryllium	1.3	B		P
7440-43-9	Cadmium	0.50	U		P
7440-70-2	Calcium	14700			P
7440-47-3	Chromium	34.5			P
7440-48-4	Cobalt	18.7	B		P
7440-50-8	Copper	32.2			P
7439-89-6	Iron	36300			P
7439-92-1	Lead	37.6			P
7439-95-4	Magnesium	11000			P
7439-96-5	Manganese	704			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	56.6			P
7440-09-7	Potassium	7350		E	P
7782-49-2	Selenium	7.9			P
7440-22-4	Silver	1.6	U		P
7440-23-5	Sodium	23900			P
7440-28-0	Thallium	6.8	B		P
7440-62-2	Vanadium	30.1	B		P
7440-66-6	Zinc	227			P

Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

EPA SAMPLE NO.

B12

INORGANIC ANALYSIS DATA SHEET

Lab Name: CHEMTECH EDISON Contract: 68-W00-088

Lab Code: CHEMED Case No.: SAS No.: SDG No.: L3355

Matrix (soil/water): WATER Lab Sample ID: L3355-09 S

Level (low/med): LOW Date Received: 02/27/01

% 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	68400		N	P
7440-36-0	Antimony	7.5	U		P
7440-38-2	Arsenic	91.1			P
7440-39-3	Barium	577			P
7440-41-7	Beryllium	3.7	B		P
7440-43-9	Cadmium	0.86	B		P
7440-70-2	Calcium	51400			P
7440-47-3	Chromium	108			P
7440-48-4	Cobalt	80.2			P
7440-50-8	Copper	250			P
7439-89-6	Iron	148000			P
7439-92-1	Lead	223			P
7439-95-4	Magnesium	27800			P
7439-96-5	Manganese	6580			P
7439-97-6	Mercury	0.85			CV
7440-02-0	Nickel	173			P
7440-09-7	Potassium	12100		E	P
7782-49-2	Selenium	12.2			P
7440-22-4	Silver	1.9	B		P
7440-23-5	Sodium	21600			P
7440-28-0	Thallium	26.7			P
7440-62-2	Vanadium	80.5			P
7440-66-6	Zinc	653			P

Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B13

Lab Name: CHEMTECH EDISON Contract: 68-W00-088

Lab Code: CHEMED Case No.: SAS No.: SDG No.: L3355

Matrix (soil/water): WATER Lab Sample ID: L3355-10 S

Level (low/med): LOW Date Received: 02/27/01

% 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	1420000		N	P
7440-36-0	Antimony	7.5	U		P
7440-38-2	Arsenic	395			P
7440-39-3	Barium	9390			P
7440-41-7	Beryllium	81.9			P
7440-43-9	Cadmium	44.3			P
7440-70-2	Calcium	279000			P
7440-47-3	Chromium	3160			P
7440-48-4	Cobalt	1700			P
7440-50-8	Copper	3580			P
7439-89-6	Iron	2560000			P
7439-92-1	Lead	2460			P
7439-95-4	Magnesium	421000			P
7439-96-5	Manganese	70700			P
7439-97-6	Mercury	8.2			CV
7440-02-0	Nickel	3910			P
7440-09-7	Potassium	63700		E	P
7782-49-2	Selenium	41.0			P
7440-22-4	Silver	2.7	B		P
7440-23-5	Sodium	11900			P
7440-28-0	Thallium	112			P
7440-62-2	Vanadium	649			P
7440-66-6	Zinc	9920			P

Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

B14

Lab Name: CHEMTECH EDISON Contract: 68-W00-088

Lab Code: CHEMED Case No.: SAS No.: SDG No.: L3355

Matrix (soil/water): WATER Lab Sample ID: L3355-11 S

Level (low/med): LOW Date Received: 02/27/01

% 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	1680000		N	P
7440-36-0	Antimony	7.5	U		P
7440-38-2	Arsenic	637			P
7440-39-3	Barium	21400			P
7440-41-7	Beryllium	75.9			P
7440-43-9	Cadmium	59.3			P
7440-70-2	Calcium	337000			P
7440-47-3	Chromium	2860			P
7440-48-4	Cobalt	1940			P
7440-50-8	Copper	4010			P
7439-89-6	Iron	3630000			P
7439-92-1	Lead	3050			P
7439-95-4	Magnesium	485000			P
7439-96-5	Manganese	211000			P
7439-97-6	Mercury	4.0			CV
7440-02-0	Nickel	4060			P
7440-09-7	Potassium	53600		E	P
7782-49-2	Selenium	93.2			P
7440-22-4	Silver	19.4			P
7440-23-5	Sodium	20600			P
7440-28-0	Thallium	270			P
7440-62-2	Vanadium	772			P
7440-66-6	Zinc	16600			P

Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

B18

Lab Name: CHEMTECH EDISON Contract: 68-W00-088

Lab Code: CHEMED Case No.: SAS No.: SDG No.: L3355

Matrix (soil/water): WATER Lab Sample ID: L3355-13 S

Level (low/med): LOW Date Received: 02/27/01

% 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	152000		N	P
7440-36-0	Antimony	7.5	U		P
7440-38-2	Arsenic	168			P
7440-39-3	Barium	1030			P
7440-41-7	Beryllium	7.2			P
7440-43-9	Cadmium	1.2	B		P
7440-70-2	Calcium	68400			P
7440-47-3	Chromium	188			P
7440-48-4	Cobalt	188			P
7440-50-8	Copper	395			P
7439-89-6	Iron	362000			P
7439-92-1	Lead	277			P
7439-95-4	Magnesium	63300			P
7439-96-5	Manganese	22000			P
7439-97-6	Mercury	0.87			CV
7440-02-0	Nickel	414			P
7440-09-7	Potassium	20700		E	P
7782-49-2	Selenium	11.7			P
7440-22-4	Silver	3.2	B		P
7440-23-5	Sodium	35400			P
7440-28-0	Thallium	62.1			P
7440-62-2	Vanadium	203			P
7440-66-6	Zinc	1070			P

Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

FB22/23

Lab Name: CHEMTECH EDISON Contract: 68-W00-088

Lab Code: CHEMED Case No.: SAS No.: SDG No.: L3355

Matrix (soil/water): WATER Lab Sample ID: L3355-16 S

Level (low/med): LOW Date Received: 02/27/01

% 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	19.9	B	N	P
7440-36-0	Antimony	7.5	U		P
7440-38-2	Arsenic	4.5	U		P
7440-39-3	Barium	0.30	U		P
7440-41-7	Beryllium	0.10	U		P
7440-43-9	Cadmium	0.50	U		P
7440-70-2	Calcium	3.1	U		P
7440-47-3	Chromium	0.50	U		P
7440-48-4	Cobalt	1.1	U		P
7440-50-8	Copper	1.2	U		P
7439-89-6	Iron	23.7	B		P
7439-92-1	Lead	1.5	U		P
7439-95-4	Magnesium	5.5	U		P
7439-96-5	Manganese	0.30	U		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	1.6	U		P
7440-09-7	Potassium	22.3	U	E	P
7782-49-2	Selenium	4.8	U		P
7440-22-4	Silver	1.6	U		P
7440-23-5	Sodium	289	U		P
7440-28-0	Thallium	5.2	U		P
7440-62-2	Vanadium	0.80	U		P
7440-66-6	Zinc	8.2	B		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

B6

Lab Name: CHEMTECH EDISON Contract: 68-W00-088

Lab Code: CHEMED Case No.: SAS No.: SDG No.: L3656

Matrix (soil/water): WATER Lab Sample ID: L3656-01 S

Level (low/med): LOW Date Received: 03/23/01

% 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	27.3	B		P
7440-36-0	Antimony	11.4	B		P
7440-38-2	Arsenic	4.8	B		P
7440-39-3	Barium	40.6	B		P
7440-41-7	Beryllium	0.14	B		P
7440-43-9	Cadmium	0.76	B		P
7440-70-2	Calcium	73100			P
7440-47-3	Chromium	2.3	B		P
7440-48-4	Cobalt	24.8	B		P
7440-50-8	Copper	1.2	U		P
7439-89-6	Iron	615			P
7439-92-1	Lead	1.5	U		P
7439-95-4	Magnesium	13900			P
7439-96-5	Manganese	1390			P
7439-97-6	Mercury	0.2	U		CV
7440-02-0	Nickel	26.1	B		P
7440-09-7	Potassium	10800			P
7782-49-2	Selenium	4.8	U		P
7440-22-4	Silver	1.6	U		P
7440-23-5	Sodium	46000			P
7440-28-0	Thallium	5.2	U		P
7440-62-2	Vanadium	0.80	U		P
7440-66-6	Zinc	33.2			P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

B8

Lab Name: CHEMTECH EDISON Contract: 68-W00-088

Lab Code: CHEMED Case No.: SAS No.: SDG No.: L3656

Matrix (soil/water): WATER Lab Sample ID: L3656-02 S

Level (low/med): LOW Date Received: 03/23/01

% 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	634			P
7440-36-0	Antimony	7.5	U		P
7440-38-2	Arsenic	4.6	B		P
7440-39-3	Barium	20.3	B		P
7440-41-7	Beryllium	0.10	U		P
7440-43-9	Cadmium	0.50	U		P
7440-70-2	Calcium	39900			P
7440-47-3	Chromium	1.6	B		P
7440-48-4	Cobalt	2.0	B		P
7440-50-8	Copper	2.3	B		P
7439-89-6	Iron	324			P
7439-92-1	Lead	8.7			P
7439-95-4	Magnesium	5400			P
7439-96-5	Manganese	397			P
7439-97-6	Mercury	0.2	U		CV
7440-02-0	Nickel	5.6	B		P
7440-09-7	Potassium	8760			P
7782-49-2	Selenium	4.8	U		P
7440-22-4	Silver	1.8	B		P
7440-23-5	Sodium	32800			P
7440-28-0	Thallium	5.2	U		P
7440-62-2	Vanadium	2.0	B		P
7440-66-6	Zinc	26.6			P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

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1

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

B9

Lab Name: CHEMTECH EDISON Contract: 68-W00-088

Lab Code: CHEMED Case No.: SAS No.: SDG No.: L3656

Matrix (soil/water): WATER Lab Sample ID: L3656-03 S

Level (low/med): LOW Date Received: 03/23/01

% 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	78.8	B		P
7440-36-0	Antimony	9.8	B		P
7440-38-2	Arsenic	4.5	U		P
7440-39-3	Barium	26.6	B		P
7440-41-7	Beryllium	0.10	U		P
7440-43-9	Cadmium	0.50	U		P
7440-70-2	Calcium	75100			P
7440-47-3	Chromium	0.50	U		P
7440-48-4	Cobalt	2.6	B		P
7440-50-8	Copper	2.0	B		P
7439-89-6	Iron	20.6	U		P
7439-92-1	Lead	1.5	U		P
7439-95-4	Magnesium	9810			P
7439-96-5	Manganese	122			P
7439-97-6	Mercury	0.2	U		CV
7440-02-0	Nickel	3.6	B		P
7440-09-7	Potassium	15300			P
7782-49-2	Selenium	4.8	U		P
7440-22-4	Silver	1.6	U		P
7440-23-5	Sodium	64900			P
7440-28-0	Thallium	5.2	U		P
7440-62-2	Vanadium	0.80	U		P
7440-66-6	Zinc	11.7	B		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

B12

Lab Name: CHEMTECH EDISON Contract: 68-W00-086

Lab Code: CHEMED Case No.: SAS No.: SDG No.: L3656

Matrix (soil/water): WATER Lab Sample ID: L3656-04 S

Level (low/med): LOW Date Received: 03/23/01

% 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	48.2	B		P
7440-36-0	Antimony	7.5	U		P
7440-38-2	Arsenic	5.8	B		P
7440-39-3	Barium	87.3	B		P
7440-41-7	Beryllium	0.10	U		P
7440-43-9	Cadmium	0.50	U		P
7440-70-2	Calcium	108000			P
7440-47-3	Chromium	0.50	U		P
7440-48-4	Cobalt	18.6	B		P
7440-50-8	Copper	1.2	U		P
7439-89-6	Iron	20.6	U		P
7439-92-1	Lead	1.5	U		P
7439-95-4	Magnesium	14700			P
7439-96-5	Manganese	6150			P
7439-97-6	Mercury	0.2	U		CV
7440-02-0	Nickel	36.6	B		P
7440-09-7	Potassium	19000			P
7782-49-2	Selenium	4.8	U		P
7440-22-4	Silver	1.6	U		P
7440-23-5	Sodium	58700			P
7440-28-0	Thallium	5.2	U		P
7440-62-2	Vanadium	0.80	U		P
7440-66-6	Zinc	40.8			P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

B13

Lab Name: CHEMTECH EDISON Contract: 68-W00-088

Lab Code: CHEMED Case No.: SAS No.: SDG No.: L3656

Matrix (soil/water): WATER Lab Sample ID: L3656-05 S

Level (low/med): LOW Date Received: 03/23/01

% 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	74.3	B		P
7440-36-0	Antimony	7.5	U		P
7440-38-2	Arsenic	4.5	U		P
7440-39-3	Barium	33.4	B		P
7440-41-7	Beryllium	0.10	U		P
7440-43-9	Cadmium	0.50	U		P
7440-70-2	Calcium	77500			P
7440-47-3	Chromium	0.94	B		P
7440-48-4	Cobalt	6.4	B		P
7440-50-8	Copper	4.3	B		P
7439-89-6	Iron	45.0	B		P
7439-92-1	Lead	1.5	U		P
7439-95-4	Magnesium	6720			P
7439-96-5	Manganese	3040			P
7439-97-6	Mercury	0.2	U		CV
7440-02-0	Nickel	10.8	B		P
7440-09-7	Potassium	10200			P
7782-49-2	Selenium	4.8	U		P
7440-22-4	Silver	1.7	B		P
7440-23-5	Sodium	17700			P
7440-28-0	Thallium	5.2	U		P
7440-62-2	Vanadium	0.80	U		P
7440-66-6	Zinc	13.3	B		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

B18

Lab Name: CHEMTECH EDISON Contract: 68-W00-088

Lab Code: CHEMED Case No.: SAS No.: SDG No.: L3656

Matrix (soil/water): WATER Lab Sample ID: L3656-06 S

Level (low/med): LOW Date Received: 03/23/01

% 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	44.0	B		P
7440-36-0	Antimony	7.5	U		P
7440-38-2	Arsenic	14.1			P
7440-39-3	Barium	30.6	B		P
7440-41-7	Beryllium	0.10	U		P
7440-43-9	Cadmium	0.50	U		P
7440-70-2	Calcium	40000			P
7440-47-3	Chromium	0.50	U		P
7440-48-4	Cobalt	20.4	B		P
7440-50-8	Copper	3.6	B		P
7439-89-6	Iron	61.0	B		P
7439-92-1	Lead	1.5	U		P
7439-95-4	Magnesium	2750	B		P
7439-96-5	Manganese	4680			P
7439-97-6	Mercury	0.2	U		CV
7440-02-0	Nickel	17.0	B		P
7440-09-7	Potassium	13500			P
7782-49-2	Selenium	4.8	U		P
7440-22-4	Silver	1.6	U		P
7440-23-5	Sodium	49500			P
7440-28-0	Thallium	5.2	U		P
7440-62-2	Vanadium	0.80	U		P
7440-66-6	Zinc	18.3	B		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

CHEMTECH

facsimile transmittal

DATE 3/27/01 NUMBER OF PAGES 8

NAME: Chuck M. FAX# 914 694-2903

COMPANY: IVI RE: Waters Edge

SENT BY :

Martha Guerra

COMMENT: Metals data
voc data will be available
on 3/28/01.

PROJECT # L3656

IF YOU DO NOT RECEIVE ALL PAGES, PLEASE CALL
US AT (732) 225-4111 AS SOON AS POSSIBLE.
205 CAMPUS PLAZA 1, RARITAN CENTER, EDISON, NJ, 08837

IN BUSINESS FOR THE ENVIRONMENT

TRANSACTION REPORT

MAR-27-01 03:31 PM

FOR: 407 324 2590

RECEIVE

DATE	START	SENDER	PAGES	TIME	NOTE
MAR-27	03:29 PM	630 762 0390	2	59"	OK

Please check one:

☐ 110 Route 4
Englewood, NJ 07631
(201) 567-6868
Fax (201) 567-1333

☒ 205 Campus Plaza I
Edison, NJ 08837
(732) 225-4111
Fax (732) 225-4110

CHEMTECH

CHAIN OF CUSTODY RECORD

CHEMTECH JOB NO. 13656.A88

CHEMTECH QUOTE NO.

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY EVE

ADDRESS 105 Corporate Park Dr

CITY White Plains STATE NY ZIP 10604

ATTENTION Chuck

PHONE 914 694 9600 FAX

PROJECT INFORMATION

PROJECT NAME: Waters Edge

PROJECT NO.: 21015676

PROJECT MANAGER: Chuck Mulligan

LOCATION Port Jervis, NY

PHONE FAX

BILLING INFORMATION

BILL TO EVE PO #

ADDRESS

CITY STATE ZIP

ATTENTION PHONE

DATA TURNAROUND INFORMATION

FAX ASAP DAYS *

HARD COPY ASAP DAYS *

EDD DAYS *

* TO BE APPROVED BY CHEMTECH

** NORMAL TURNAROUND TIME - 14 DAYS

DATA DELIVERABLE INFORMATION

☐ RESULTS ONLY ☐ USEPA CLP

☐ RESULTS + QC ☒ NYS ASP "B"

☐ NJ REDUCED ☐ NYS ASP "A"

☐ NJ CLP ☐ EDD

☐ EDD FORMAT

ANALYSIS

1 Dissolved TAL Metals
2 ASP 95-1 VOC
3
4
5
6
7
8
9

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES 1	2	3	4	5	6	7	8	9	COMMENTS
1 01	B8	Water		X	3/22		1	X									Filter prior to Analysis
2 02	B8	Water		X	1	"	1	X									Filter Prior to Analysis
3 03	B9	Water		X	1	"	1	X									Filter Prior to Analysis
4 04	B12	Water		X	"	"	1	X									Filter Prior to Analysis
5 05	B13	Water		X	"	"	1	X									Filter Prior to Analysis
6 06	B14	Water		X	"	"	1	X									Filter Prior to Analysis
7 07	B20	Water		X	"	"	2		X								
8 08	B21	Water		X	"	"	2		X								

Do not Preserve!

* Specify Preservatives: A – HCl, B – HNO_3, C – H_2SO_4, D – NaOH, E – ICE, F – Other

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER	DATE/TIME	RECEIVED BY	DATE/TIME
1 C Mulligan	3/22/01	1	3/23/01 1010
RELINQUISHED BY: 2	DATE/TIME: 1310 3/23/01	RECEIVED BY: 2 Sunny Patel	
RELINQUISHED BY 3	DATE/TIME	RECEIVED FOR LAB BY 3	

Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non-Compliant ☐ Temp. of Cooler

Comments: * BOTTLE MARKED B18 BUT Sample Description (B8) REC'D B8 ON COC.

Page 1 of 1

Shipment Complete: Yes No

39424

Ver. 6/2000

WHITE – CHEMTECH COPY FOR RETURN TO CLIENT YELLOW – CHEMTECH COPY PINK – SAMPLER COPY

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

TP35'

Lab Name: CHEMTECH EDISON Contract: 68-W00-088

Lab Code: CHEMED Case No.: SAS No.: SDG No.: L3355

Matrix (soil/water): SOIL Lab Sample ID: L3355-17 S

Level (low/med): LOW Date Received: 02/27/01

% Solids: 79.7

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9890			P
7440-36-0	Antimony	1.9	U		P
7440-38-2	Arsenic	5.6			P
7440-39-3	Barium	117			P
7440-41-7	Beryllium	0.64	B		P
7440-43-9	Cadmium	0.13	U		P
7440-70-2	Calcium	2140			P
7440-47-3	Chromium	9.7			P
7440-48-4	Cobalt	6.8	B		P
7440-50-8	Copper	19.7			P
7439-89-6	Iron	15800			P
7439-92-1	Lead	66.9			P
7439-95-4	Magnesium	2320			P
7439-96-5	Manganese	811			P
7439-97-6	Mercury	0.33		N	CV
7440-02-0	Nickel	12.8			P
7440-09-7	Potassium	760	B	E	P
7782-49-2	Selenium	1.2	U		P
7440-22-4	Silver	0.40	U		P
7440-23-5	Sodium	118	B		P
7440-28-0	Thallium	1.5	B		P
7440-62-2	Vanadium	12.7			P
7440-66-6	Zinc	67.2			P

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

TP66'

Lab Name: CHEMTECH EDISON Contract: 68-W00-088

Lab Code: CHEMED Case No.: SAS No.: SDG No.: L3355

Matrix (soil/water): SOIL Lab Sample ID: L3355-19 S

Level (low/med): LOW Date Received: 02/27/01

% Solids: 78.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	12000			P
7440-36-0	Antimony	1.9	U		P
7440-38-2	Arsenic	4.1			P
7440-39-3	Barium	112			P
7440-41-7	Beryllium	0.81	B		P
7440-43-9	Cadmium	0.13	U		P
7440-70-2	Calcium	1780			P
7440-47-3	Chromium	11.1			P
7440-48-4	Cobalt	8.6	B		P
7440-50-8	Copper	10.1			P
7439-89-6	Iron	17900			P
7439-92-1	Lead	14.6			P
7439-95-4	Magnesium	3000			P
7439-96-5	Manganese	797			P
7439-97-6	Mercury	0.13	U	N	CV
7440-02-0	Nickel	15.2			P
7440-09-7	Potassium	1230	B	E	P
7782-49-2	Selenium	1.3			P
7440-22-4	Silver	0.40	U		P
7440-23-5	Sodium	72.6	U		P
7440-28-0	Thallium	3.6			P
7440-62-2	Vanadium	11.5	B		P
7440-66-6	Zinc	57.2			P

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B6'6'

Lab Name: CHEMTECH EDISON Contract: 68-W00-088

Lab Code: CHEMED Case No.: SAS No.: SDG No.: L3355

Matrix (soil/water): SOIL Lab Sample ID: L3355-23 S

Level (low/med): LOW Date Received: 02/27/01

% Solids: 89.2

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4390			P
7440-36-0	Antimony	1.6	U		P
7440-38-2	Arsenic	0.98	U		P
7440-39-3	Barium	16.2	B		P
7440-41-7	Beryllium	0.15	B		P
7440-43-9	Cadmium	0.11	U		P
7440-70-2	Calcium	262	B		P
7440-47-3	Chromium	5.2			P
7440-48-4	Cobalt	3.1	B		P
7440-50-8	Copper	4.4	B		P
7439-89-6	Iron	6890			P
7439-92-1	Lead	5.4			P
7439-95-4	Magnesium	1690			P
7439-96-5	Manganese	102			P
7439-97-6	Mercury	0.11	U	N	CV
7440-02-0	Nickel	7.7	B		P
7440-09-7	Potassium	525	B	E	P
7782-49-2	Selenium	1.0	U		P
7440-22-4	Silver	0.35	U		P
7440-23-5	Sodium	62.9	U		P
7440-28-0	Thallium	1.1	U		P
7440-62-2	Vanadium	4.9	B		P
7440-66-6	Zinc	28.6			P

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B7'6'

Lab Name: CHEMTECH EDISON Contract: 68-W00-088

Lab Code: CHEMED Case No.: SAS No.: SDG No.: L3355

Matrix (soil/water): SOIL Lab Sample ID: L3355-24 S

Level (low/med): LOW Date Received: 02/27/01

% Solids: 84.6

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4120			P
7440-36-0	Antimony	1.7	U		P
7440-38-2	Arsenic	1.0	U		P
7440-39-3	Barium	21.2	B		P
7440-41-7	Beryllium	0.16	B		P
7440-43-9	Cadmium	0.12	U		P
7440-70-2	Calcium	465	B		P
7440-47-3	Chromium	4.7			P
7440-48-4	Cobalt	2.9	B		P
7440-50-8	Copper	4.5	B		P
7439-89-6	Iron	5930			P
7439-92-1	Lead	5.7			P
7439-95-4	Magnesium	1530			P
7439-96-5	Manganese	94.2			P
7439-97-6	Mercury	0.11	U	N	CV
7440-02-0	Nickel	7.1	B		P
7440-09-7	Potassium	513	B	E	P
7782-49-2	Selenium	1.1	U		P
7440-22-4	Silver	0.37	U		P
7440-23-5	Sodium	67.0	U		P
7440-28-0	Thallium	1.2	U		P
7440-62-2	Vanadium	4.0	B		P
7440-66-6	Zinc	28.0			P

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B8'6'

Lab Name: CHEMTECH EDISON Contract: 68-W00-088

Lab Code: CHEMED Case No.: SAS No.: SDG No.: L3355

Matrix (soil/water): SOIL Lab Sample ID: L3355-25 S

Level (low/med): LOW Date Received: 02/27/01

% Solids: 84.3

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5050			P
7440-36-0	Antimony	1.7	U		P
7440-38-2	Arsenic	1.0	U		P
7440-39-3	Barium	17.4	B		P
7440-41-7	Beryllium	0.19	B		P
7440-43-9	Cadmium	0.11	U		P
7440-70-2	Calcium	852	B		P
7440-47-3	Chromium	6.3			P
7440-48-4	Cobalt	3.6	B		P
7440-50-8	Copper	5.5	B		P
7439-89-6	Iron	7950			P
7439-92-1	Lead	11.1			P
7439-95-4	Magnesium	1910			P
7439-96-5	Manganese	139			P
7439-97-6	Mercury	0.12	U	N	CV
7440-02-0	Nickel	8.3	B		P
7440-09-7	Potassium	731	B	E	P
7782-49-2	Selenium	1.2			P
7440-22-4	Silver	0.36	U		P
7440-23-5	Sodium	66.0	U		P
7440-28-0	Thallium	1.2	U		P
7440-62-2	Vanadium	6.5	B		P
7440-66-6	Zinc	37.2			P

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B8D'6'

Lab Name: CHEMTECH EDISON Contract: 68-W00-088

Lab Code: CHEMED Case No.: SAS No.: SDG No.: L3355

Matrix (soil/water): SOIL Lab Sample ID: L3355-26 S

Level (low/med): LOW Date Received: 02/27/01

% Solids: 91.1

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3090			P
7440-36-0	Antimony	1.6	U		P
7440-38-2	Arsenic	2.7			P
7440-39-3	Barium	32.3	B		P
7440-41-7	Beryllium	0.24	B		P
7440-43-9	Cadmium	0.11	U		P
7440-70-2	Calcium	1180			P
7440-47-3	Chromium	5.7			P
7440-48-4	Cobalt	2.9	B		P
7440-50-8	Copper	5.7			P
7439-89-6	Iron	6140			P
7439-92-1	Lead	18.8			P
7439-95-4	Magnesium	936	B		P
7439-96-5	Manganese	271			P
7439-97-6	Mercury	0.10		N	CV
7440-02-0	Nickel	5.6	B		P
7440-09-7	Potassium	306	B	E	P
7782-49-2	Selenium	1.0	U		P
7440-22-4	Silver	0.35	U		P
7440-23-5	Sodium	73.3	B		P
7440-28-0	Thallium	1.1	U		P
7440-62-2	Vanadium	4.6	B		P
7440-66-6	Zinc	30.2			P

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B13'6'

Lab Name: CHEMTECH EDISON Contract: 68-W00-088

Lab Code: CHEMED Case No.: SAS No.: SDG No.: L3355

Matrix (soil/water): SOIL Lab Sample ID: L3355-27 S

Level (low/med): LOW Date Received: 02/27/01

% 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	6700			P
7440-36-0	Antimony	1.8	U		P
7440-38-2	Arsenic	5.3			P
7440-39-3	Barium	24.4	B		P
7440-41-7	Beryllium	0.34	B		P
7440-43-9	Cadmium	0.12	U		P
7440-70-2	Calcium	813	B		P
7440-47-3	Chromium	7.3			P
7440-48-4	Cobalt	6.3	B		P
7440-50-8	Copper	14.3			P
7439-89-6	Iron	12600			P
7439-92-1	Lead	10.1			P
7439-95-4	Magnesium	2390			P
7439-96-5	Manganese	410			P
7439-97-6	Mercury	0.12	U	N	CV
7440-02-0	Nickel	15.6			P
7440-09-7	Potassium	750	B	E	P
7782-49-2	Selenium	1.1	U		P
7440-22-4	Silver	0.38	U		P
7440-23-5	Sodium	68.3	U		P
7440-28-0	Thallium	1.2	U		P
7440-62-2	Vanadium	8.3	B		P
7440-66-6	Zinc	50.2			P

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

CHEMTECH

LABORATORY REPORT

CLIENT: IVI Environmental Inc.

ATTN.: CHUCK MULLIGAN

Waters Edge

LAB RECEIVING #: L3355

Analysis Meth.: 150.1

Matrix: Water
Unit: ph Units

Analyzed: 2/28/01
Analyst: BERTHA

Lab Sample ID:		L3355-01	L3355-02	L3355-03	L3355-04	
Client Sample ID:	Method Blank	MW1	B6	B7	B8	**Detection**
COMPOUNDS:	**D.F.:**	1	1	1	1	**Limit**
pH		5.9	5.1	6.4	6.3	

Lab Sample ID:		L3355-05	L3355-06	L3355-07	L3355-08	
Client Sample ID:	Method Blank	B9	B10	B10D	B11	**Detection**
COMPOUNDS:	**D.F.:**	1	1	1	1	**Limit**
pH		6.4	5.5	6.0	5.2	

Lab Sample ID:		L3355-09	L3355-10	L3355-11	L3355-13	
Client Sample ID:	Method Blank	B12	B13	B14	B18	**Detection**
COMPOUNDS:	**D.F.:**	1	1	1	1	**Limit**
pH		7.6	7.1	5.6	7.3	

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NJDEP Certification No. 12013

CHEMTECH LABORATORY REPORT

CLIENT: IVI Environmental Inc.

ATTN.: CHUCK MULLIGAN

Waters Edge

LAB RECEIVING #: L3355

Analysis Meth.: 160.3

Matrix: Solid
Unit: %

Analyzed: 3/1/01
Analyst: PRAMIT

	Lab Sample ID:		L3355-17	L3355-18	L3355-19	L3355-20	
	Client Sample ID:	Method Blank	TP35'	TP45'	TP66'	TP7'6'	**Detection**
COMPOUNDS:	**D.F.:**		1	1	1	1	**Limit**
Percent Solids			79.7	91.2	78.8	79.9	
	Lab Sample ID:		L3355-21	L3355-22	L3355-23	L3355-24	
	Client Sample ID:	Method Blank	TP8'6'	TP9'4'	B6'6'	B7'6'	**Detection**
COMPOUNDS:	**D.F.:**		1	1	1	1	**Limit**
Percent Solids			81.0	83.0	89.2	84.6	
	Lab Sample ID:		L3355-25	L3355-26	L3355-27	L3355-28	
	Client Sample ID:	Method Blank	B8'6'	B8D'6'	B13'6'	B151'-2'	**Detection**
COMPOUNDS:	**D.F.:**		1	1	1	1	**Limit**
Percent Solids			84.3	91.1	83.0	85.0	
	Lab Sample ID:		L3355-29				
	Client Sample ID:	Method Blank	B161'-2'				**Detection**
COMPOUNDS:	**D.F.:**		1				**Limit**
Percent Solids			84.3				

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