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932006

ENGINEERING INVESTIGATIONS AT INACTIVE HAZARDOUS WASTE SITES

PHASE II INVESTIGATION

Brzezinski Property Site No. 932006
Town of Wheatfield Niagara County

DATE: July 1991

Addendum Report

Appendices A-G

Prepared for:

New York State Department of Environmental Conservation

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Division of Hazardous Waste Remediation
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By:

Lawler, Matusky & Skelly Engineers

ENGINEERING INVESTIGATIONS AT INACTIVE HAZARDOUS WASTE SITES IN THE STATE OF NEW YORK PHASE II INVESTIGATIONS

Brzezinski Property
Town of Wheatfield, Niagara County
NYSDEC I.D. No. 932006

Addendum Report
Appendices A-G

Prepared for:

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June 1991

Project No. 576-043

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B - Piezometer Installation Diagrams

C - Soil Gas Results

D - Boring/Well Logs

E - Sampling Logs

F - Analytical Data Summary Sheets

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CHAPTER 1

EXECUTIVE SUMMARY

The Brzezinski Property is located in the Town of Wheatfield, Niagara County, New York. The site lies between River Road (State Routes 365 and 364) to the north and the Niagara River to the south. A 60-ft right-of-way owned by the Niagara County Water District separates the site from the Lynch Park Trailer Park to the east.

Information on the site history, borings, samples, and the Phase II investigation conducted by Lawler, Matusky & Skelly Engineers (LMS) under the direction of the New York State Department of Environmental Conservation (NYSDEC) is found in LMS' 1990 Phase II report. The results of field investigations recommended in that report are documented herein. As no additional historical or information was gathered during these investigations, the site history in the Phase II report is up to date.

The conclusions of the additional field investigations at the Brzezinski Property site are:

- Low levels of contaminants are found throughout the site; slightly higher concentrations are found in the northern and western portions. No hot spots were found; it is possible, however, that the borings did not find them as the soil gas survey may have been hampered by silt and clay lenses.
- Contaminants are either leaching into the groundwater at a slow rate or are diluted by river water. Contaminants in the wells match those found in the soils, but at low levels. Some of the contamination exceeds groundwater standards.
- The direction of groundwater flow is confirmed as toward the river. However, the groundwater gradient indicates that the nearshore area does have some bank storage and the river is either diluting the flow or holding it back.
- Niagara River water and sediment samples show no evidence of an impact from the landfill.

The following recommendations are based on the conclusions of both the original Phase II and the additional investigations:

- The site should be delisted and properly closed and monitored as an industrial landfill.

- The small area of product-level TCE contamination (around boring GW-4B) should be remediated.

CHAPTER 2

OBJECTIVES

In 1988-1989 LMS conducted for NYSDEC a Phase II investigation of the Brzezinski Property that revealed the presence of industrial wastes at the site, some metals and organic compounds in groundwater at concentrations that exceeded standards, and very high concentrations of a suite of volatile organics, particularly trichloroethene (TCE), in the soils of one boring. The groundwater hydrology was unclear because of potential bank storage from the adjacent river, the extensive fill at the site, and the underlying clays, silts, and sediments. The report concluded that the investigations to that point had not been able to determine whether any contamination from the site has migrated into the Niagara River, elsewhere off-site, or below the native clay layer.

Based on these conclusions, the following additional investigations were recommended:

- Define the extent of volatile organic contamination in the northern portion of the property, which is suspected of having a source from a surface discharge, by drilling test borings to the water table. Continuous split-spoon samples would be analyzed on-site by a mobile gas chromatography (GC) laboratory for the predominant compound, TCE.

- Install a north-south transect of three to four new monitoring wells from River Road, through the fill, to the Niagara River shoreline. Water table information from these wells would help define the hydraulic interrelationship between the river and the site groundwater. In addition, samples of groundwater from these new wells and the Phase II wells should be analyzed for target compound list (TCL) compounds to determine whether contaminants are moving toward the river or off site.

- Sample the Niagara River up and downstream of the site to see whether site contaminants are reaching the river.

- Sample during construction of water main on adjacent property. (*Note*: This recommendation was included to cover proposed construction along the eastern edge of the site.)

In September 1990 NYSDEC contracted LMS to conduct the recommended studies so as to obtain the information not obtained during the initial Phase II investigation. In particular, the study was to:

- *Document the presence of hazardous waste at the site with an extensive soil gas survey and soil borings.* This objective goes beyond the initial recommendation to define the extent of TCE contamination in the northern portion. The additional work was included to observe the entire site via a preliminary scanning study (soil gas) and confirm the results with soil boring samples.

- *Install an upgradient well and an additional downgradient well to determine groundwater movement; collect and analyze another round of groundwater samples.* To fully define the groundwater movement, the scope was modified to install six piezometers and two new monitoring wells.

- *Collect and sample downgradient Niagara River water.*

LMS conducted the additional investigation in the fall of 1990; this report presents the results of this work. The investigation is discussed in detail in Chapters 3 and 4. Documentation appears in the following appendices:

A - Reference Documentation

B - Piezometer Installation Diagrams

C - Soil Gas Results

D - Boring/Well Logs

E - Sampling Logs

F - Analytical Data Summary Sheets

G - QA/QC Reports

CHAPTER 3

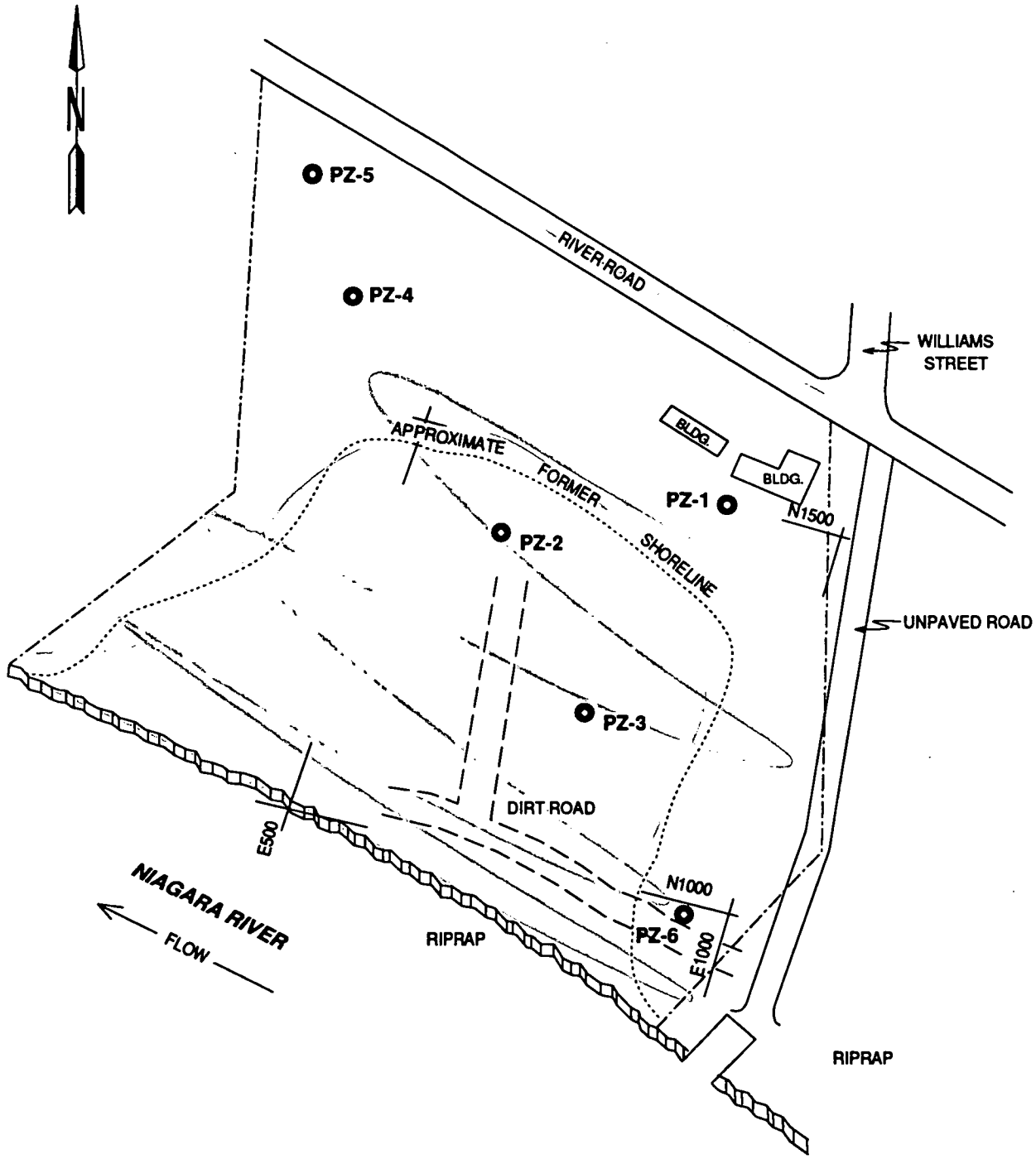
DESCRIPTION OF ADDITIONAL PHASE II INVESTIGATION

3.1 INSTALLATION OF PIEZOMETERS

Between 25 and 27 October 1990 LMS installed six piezometers at the Brzezinski site (Figure 3-1) to better determine groundwater elevations and flow direction and therefore help locate the supplementary upgradient and downgradient monitoring wells. The piezometers were installed using an Acker Soil Mechanic with a 3-in. solid-stem auger. They were finished with 1.5-in. PVC screening and riser, backfilled with sand, and sealed with bentonite (Appendix B). During installation, all piezometers were monitored with a photoionization detector (PID), a flame ionization detector (FID), and a combustible gas indicator (CGI). An on-site LMS geologist logged each sample by describing the fill and soil characteristics and noting any visible signs of contamination.

Piezometer PZ-1 was initially located in the northeast corner of the site; because refusal was encountered at 4.5 ft below grade, the piezometer was moved 12 ft south and installed to a depth of 15 ft (Figure 3-1). A gray clay with moist sand lenses was encountered from the surface to 7.8 ft below grade. From 7.8 to 11 ft below grade a moist, silty sand layer was present, followed by a wet, brown, clay layer from 11 to 15 ft. PID, FID, and CGI instruments were used throughout drilling, but only background levels of contaminants were detected.

PZ-2, located near the center of the site, was initially drilled to refusal at approximately 7 ft. Small amounts of metal, plastic, and paper were noted along with a slight odor of garbage. Lower explosive limit (LEL) levels were measured at 36%; no hydrogen sulfide was identified during drilling. Refusal was encountered at 7 ft on a hollow-sounding metal object. PZ-2 was then moved 7 ft east of the original hole and drilled to 24 ft below grade (Figure 3-1). A black silty sand mixture (ash and refuse) was initially encountered from the surface to 2.5 ft. No wet or dry cuttings were noted beyond that level. A brown-gray clay was observed on the



LEGEND

PZ-1 ● Piezometer location

NOTE: Property line and buildings are approximate

0 100 200 ft

SCALE
1 in. = 200 ft

FIGURE 3-1

PIEZOMETER LOCATIONS

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auger flights. Because of low battery levels, the CGI was not used; the FID and PID were used continuously, however, with the FID showing methane levels of 100 to 1000 units.

PZ-3 was installed to 9.5 ft below grade, approximately 400 ft south of PZ-2 (Figure 3-1). A moist brown clay was present from the surface to 6 ft below grade, with a black, wet, silty sand mixture (ash and refuse) noted from 6 to 9.5 ft below grade. Background levels of contaminants were recorded throughout drilling with the FID, PID, and CGI.

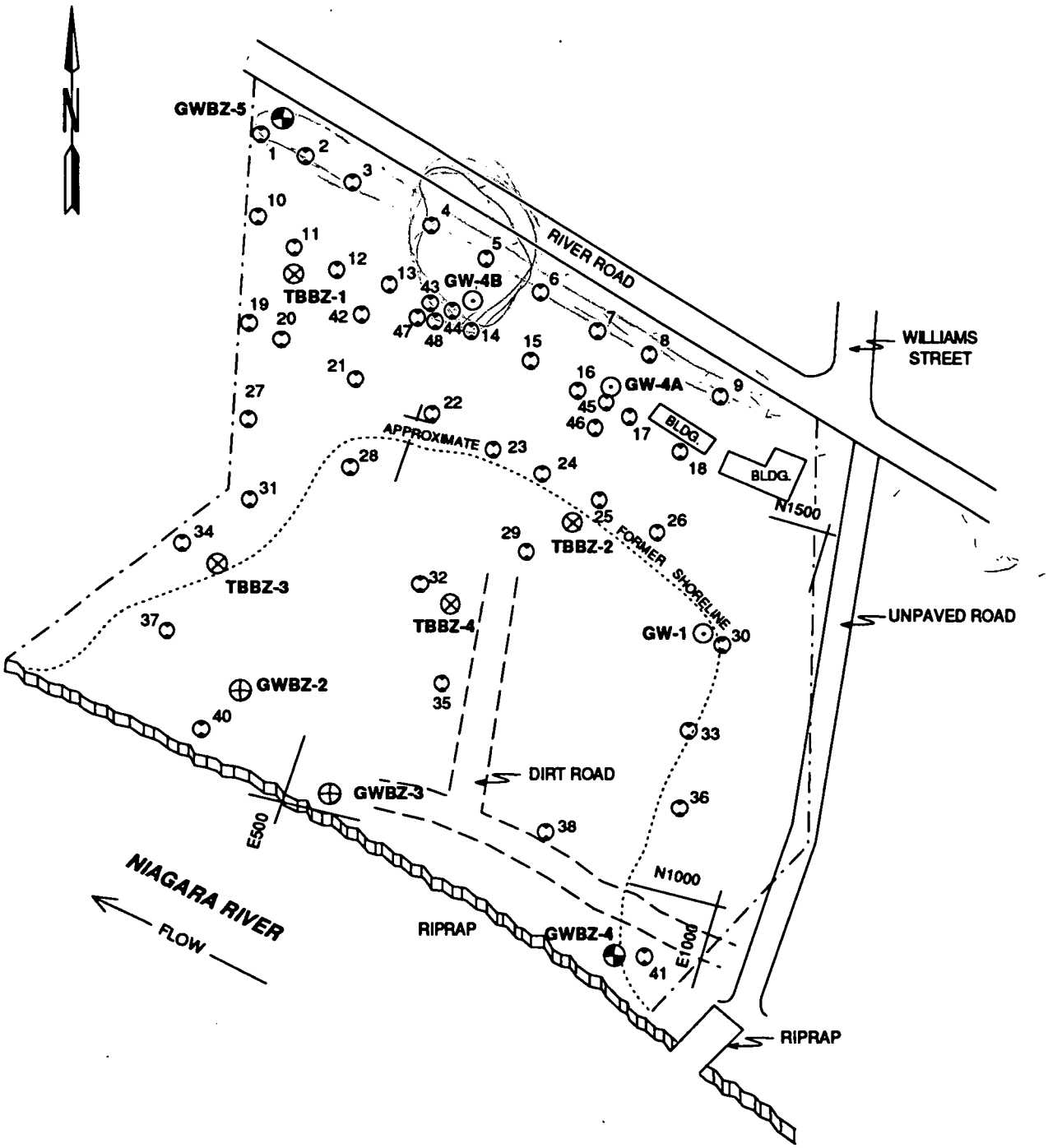
At the initial PZ-4 location refusal was encountered at 3.5 ft below grade. The piezometer was relocated 10 ft to the west, where drilling terminated at a depth of 22 ft (Figure 3-1). From the surface to 6 ft below grade an organic soil with a high clay concentration was present. No cuttings were present from 6 to 16 ft; after this point a black, moist, silty sand mixture (ash and refuse) was observed to 21 ft. At 21 ft a brown, wet clay was noted and drilling terminated at 22 ft in the clay. PID readings ranged from 15 to 20 units and the FID detected high levels of methane (500-1000 units) from 10 to 12 ft, with consistent levels of 100 units throughout.

PZ-5, the piezometer closest to River Road, was located in the northwest portion of the site (Figure 3-1). The cuttings indicated a dark gray clay with some pebbles from the surface to 3 ft and a black, wet, silty sand mixture (ash and refuse) from 3 to 9 ft. Drilling terminated at 9 ft because of difficult drilling conditions.

PZ-6, located on the southeast end of the site near the Niagara River, was drilled to 18 ft below grade (Figure 3-1). A black organic soil containing wood and metal was observed from the surface to approximately 9 ft. No cuttings were present for the remainder of drilling. FID, PID, and CGI instruments recorded background levels of contaminants at all depths.

3.2 SOIL GAS SURVEY

Forty-eight soil gas points were installed throughout the site between 28 and 31 October 1990 (Figure 3-2). The points were concentrated in the northern half of the site so as to determine the distribution of volatile organic compounds (VOCs) previously identified in that



LEGEND

1 ⊙	Soil gas point locations
GWBZ-3 ⊕	Groundwater monitoring well location Oct. 1988
GWBZ-4 ◔	Groundwater monitoring well location Nov. 1990
GW-1 ⊙	Borehole sample location Oct. 1988
TBBZ-2 ⊗	Borehole sample location Nov. 1990

NOTE: Soil gas locations are approximate

NOTE: Property line and buildings are approximate

0 100 200 ft

SCALE
1 in. = 200 ft

FIGURE 3-2

SOIL GAS POINT LOCATIONS

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area as well as the locations of future soil borings. Soil gas points were analyzed on-site by the mobile laboratory from Tetra-K Testing. FID, PID, and electron capture detectors were used to identify VOCs.

3.2.1 **Field Procedures**

To obtain the best results, soil gas points were installed from 2 to 6 ft below grade, which prevented groundwater from being introduced into the sampling system. A slam bar was used initially to drive the guide hole. Upon removal, the slam bar was inspected for moisture to determine whether the saturated zone had been penetrated.

Typically, if refusal is met with the slam bar, a new hole is made a short distance (1-2 ft) away. The steel soil gas point is then assembled with its Teflon umbrella (to prevent cave-in around the intake parts), inserted into the original hole, and driven to the desired depth. The hammer and rod assembly is subsequently removed from the hole, leaving the point and attached Teflon tubing in place. Sand is used to backfill the tubing up to 1 ft above the point to allow a capture area for soil gases. Bentonite powder and water are then used to backfill the remainder of the hole, thus creating a seal above the point. A clay seal used around the tubing and over the ground further prevents any downflow of ambient air during purging and sampling of the hole. Finally, a clay plug is inserted over the end of the tube to prevent debris from entering the tubing prior to sampling. (The construction details of a typical soil gas point can be seen on Figure 3-3.) Measured soil gas samples are then removed using a portable pumping system.

Sampling can take place any time after installation of a point except during and after periods of precipitation. During a rainstorm the upper soil layer becomes saturated; sampling is generally halted for 24 hrs following precipitation to allow the saturated upper zone to reach equilibrium.

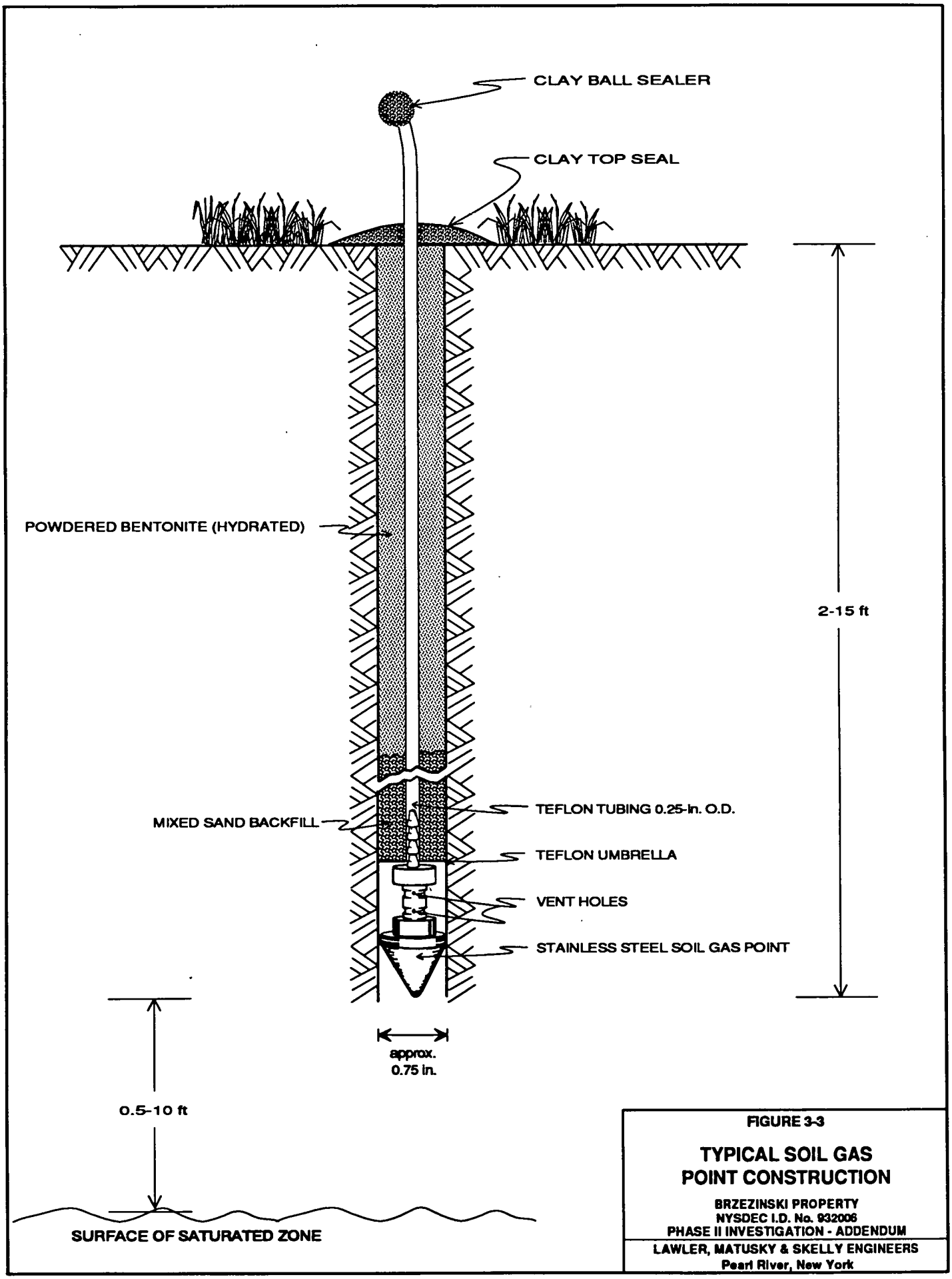

FIGURE 3-3

TYPICAL SOIL GAS POINT CONSTRUCTION

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3.2.2 Soil Gas Results

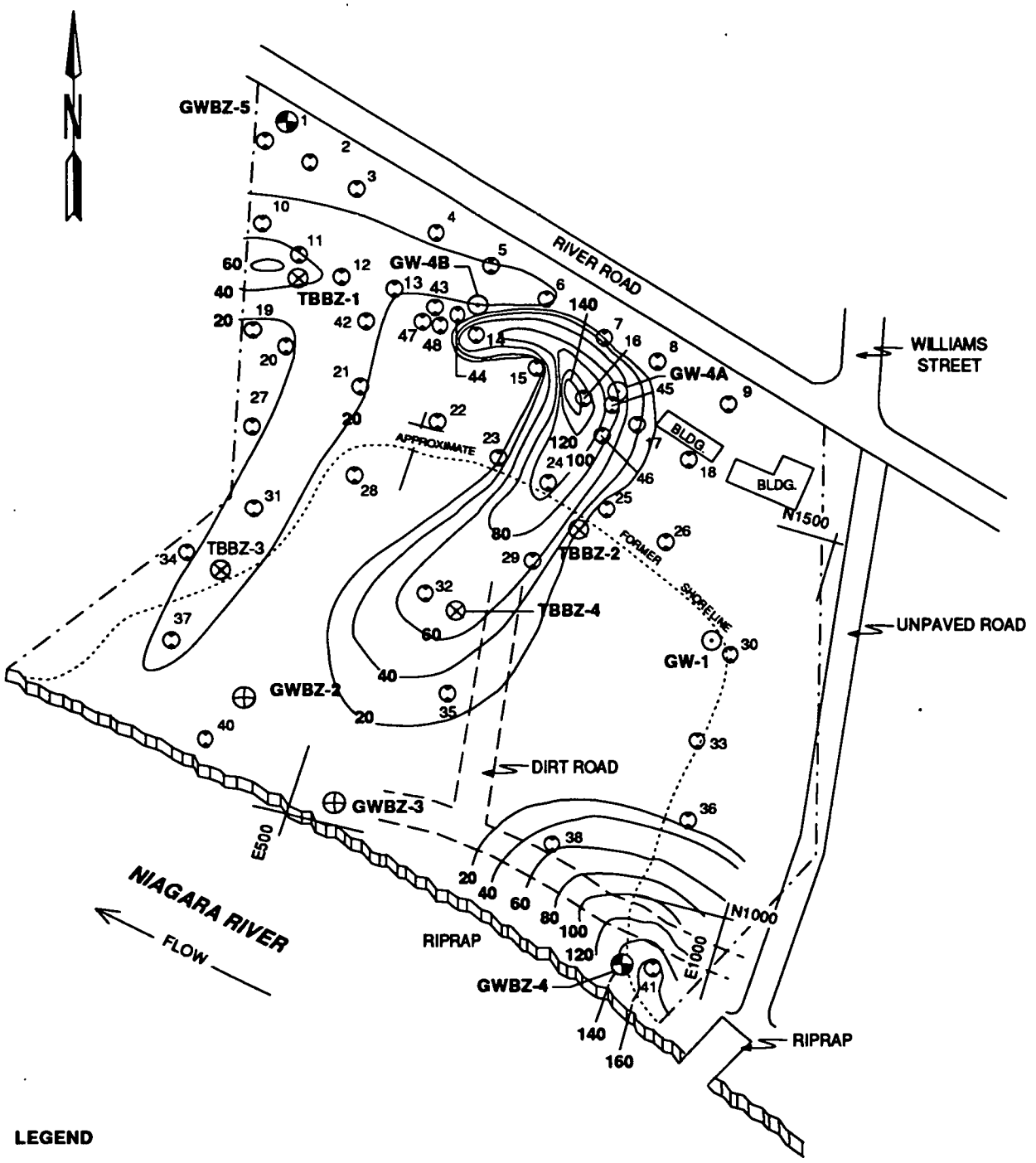
The results of the survey showed relatively low levels of VOCs over a widespread area. These levels were low in comparison to the levels identified in the soil sample from GW-4B analyzed during the Phase II investigation. TCE was found almost everywhere on the site; Figure 3-4 identifies only the areas containing concentrations greater than 20 ppb.

Tetrachloroethylene was identified over nearly as wide an area as TCE but in concentrations that were roughly half; Figure 3-5 shows the concentrations above 10 ppb in the contoured area. 1,1,1-Trichloroethane (1,1,1-TCA) was also identified in a fairly large area near the center of the site; the contours in Figure 3-6 identify areas with concentrations greater than 10 ppb. All soil gas documentation is contained in Appendix C.

3.3 SOIL BORINGS

Based on the data from the soil gas survey and a field analysis of groundwater from the piezometers, it appears that very low levels of solvent contamination are spread rather evenly throughout the upper soil zone. It was determined that four soil borings (approved by NYSDEC personnel) were to be located in zones identified by the soil gas survey as having relatively high combined concentrations of various organic compounds. These borings were to be taken to a depth of approximately 30 ft; soil samples from the zone exhibiting the highest levels of detectable contamination were to be preserved for analysis by Aquatec Inc., South Burlington, Vermont, for target compound list (TCL) analytes, semivolatiles, volatiles, PCBs/pesticides, metals and cyanide, EP toxicity metals, and reactivity in accordance with U.S. Environmental Protection Agency (EPA) Statement of Work (SOW) protocol (Appendix F).

Between 28 and 30 November 1990 American Auger and Ditching Co., Inc., West Monroe, New York, under LMS supervision, drilled four test borings (TBBZ-1, -2, -3, and-4), as shown in Figure 3-7. All test borings were drilled with a 4.25-in. I.D. hollow-stem auger and a truck-mounted rig. Continuous split-spoon samples were taken every 2 ft ahead of the augers to obtain undisturbed samples. All split-spoon samples were monitored with a PID, a FID,



LEGEND

- 1 — Soil gas point locations
- 20 — TCE level contours (contour interval is 20 ppb)
- GWBZ-3 — Groundwater monitoring well location Oct. 1988
- GWBZ-4 — Groundwater monitoring well location Nov. 1990
- GW-1 — Borehole sample location Oct. 1988
- TBBZ-2 — Borehole sample location Nov. 1990

NOTE: Soil gas locations are approximate

NOTE: Property line and buildings are approximate

0 100 200 ft

SCALE
1 in. = 200 ft

FIGURE 3-4

TCE SOIL GAS CONCENTRATIONS

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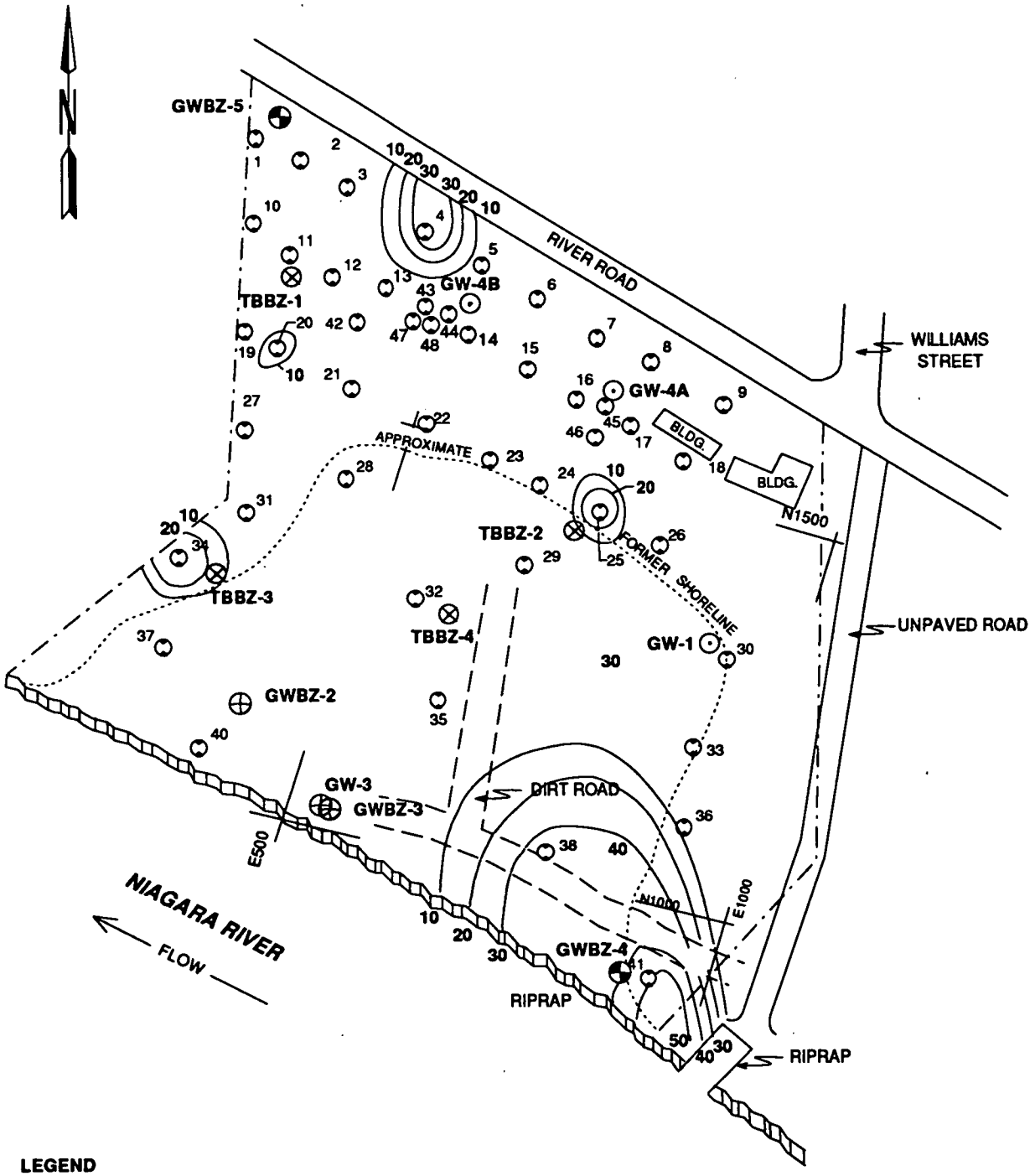

LEGEND

- 1 ○ Soil gas point locations
- 30 ~ Tetrachloroethylene contour lines (contour interval is 10 ppb)
- GWBZ-3 ⊕ Groundwater monitoring well location Oct. 1988
- GWBZ-4 ◔ Groundwater monitoring well location Nov. 1990
- GW-1 ⊙ Borehole sample location Oct. 1988
- TBBZ-2 ⊗ Borehole sample location Nov. 1990

NOTE: Soil gas locations are approximate

NOTE: Property line and buildings are approximate

0 100 200 ft

SCALE
1 in. = 200 ft

FIGURE 3-5

TETRACHLOROETHYLENE SOIL GAS CONCENTRATIONS

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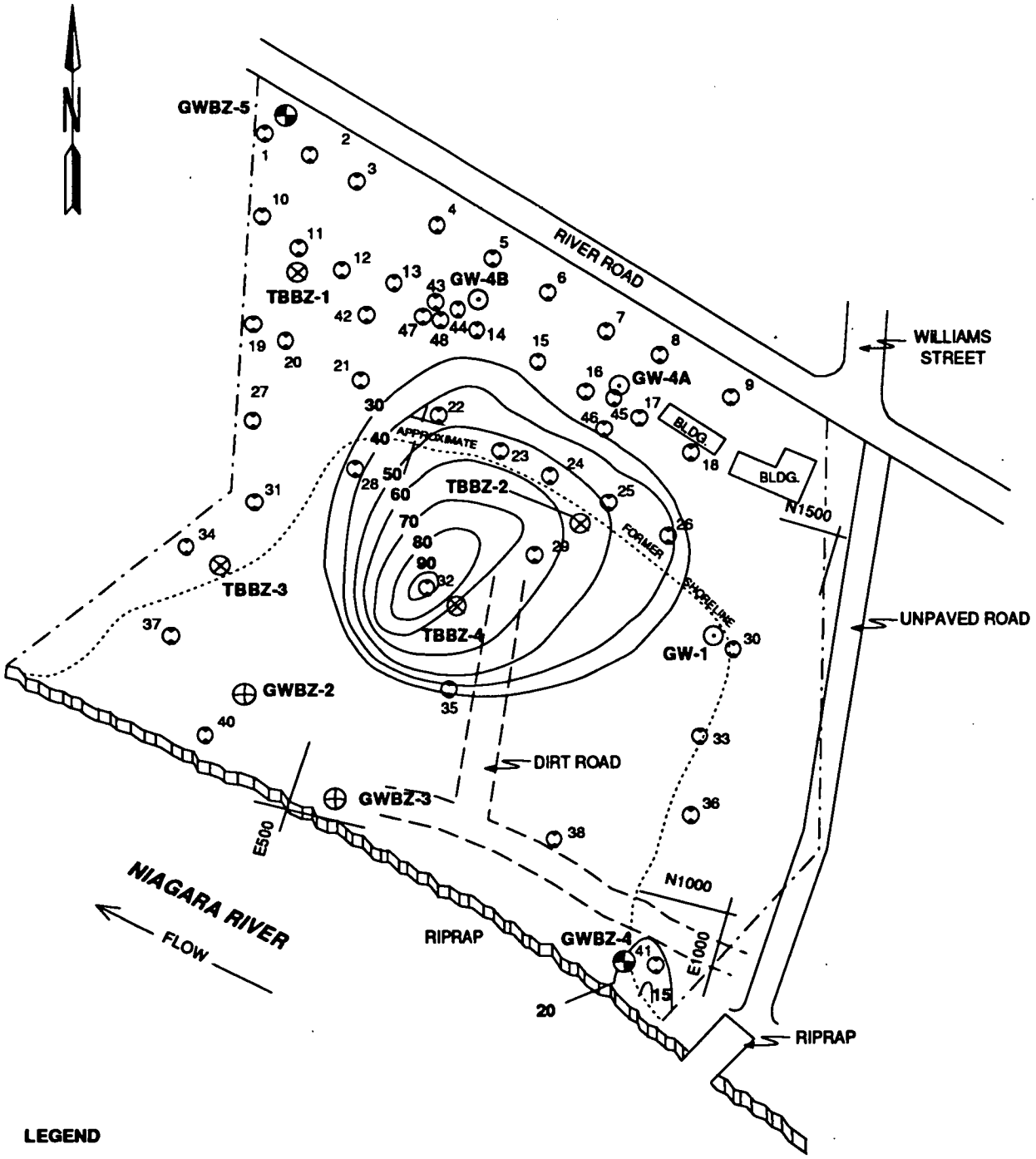

LEGEND

- 1 ○ Soil gas point locations
- 20 Curve 1,1,1-TCA level contours (contour interval is 10 ppb)
- GWBZ-3 ⊕ Groundwater monitoring well location Oct. 1988
- GWBZ-4 ◔ Groundwater monitoring well location Nov. 1990
- GW-1 ⊙ Borehole sample location Oct. 1988
- TBBZ-2 ⊗ Borehole sample location Nov. 1990

NOTE: Soil gas locations are approximate

NOTE: Property line and buildings are approximate

0 100 200 ft

SCALE
1 in. = 200 ft

FIGURE 3-6

1,1,1-TCA SOIL GAS CONCENTRATIONS

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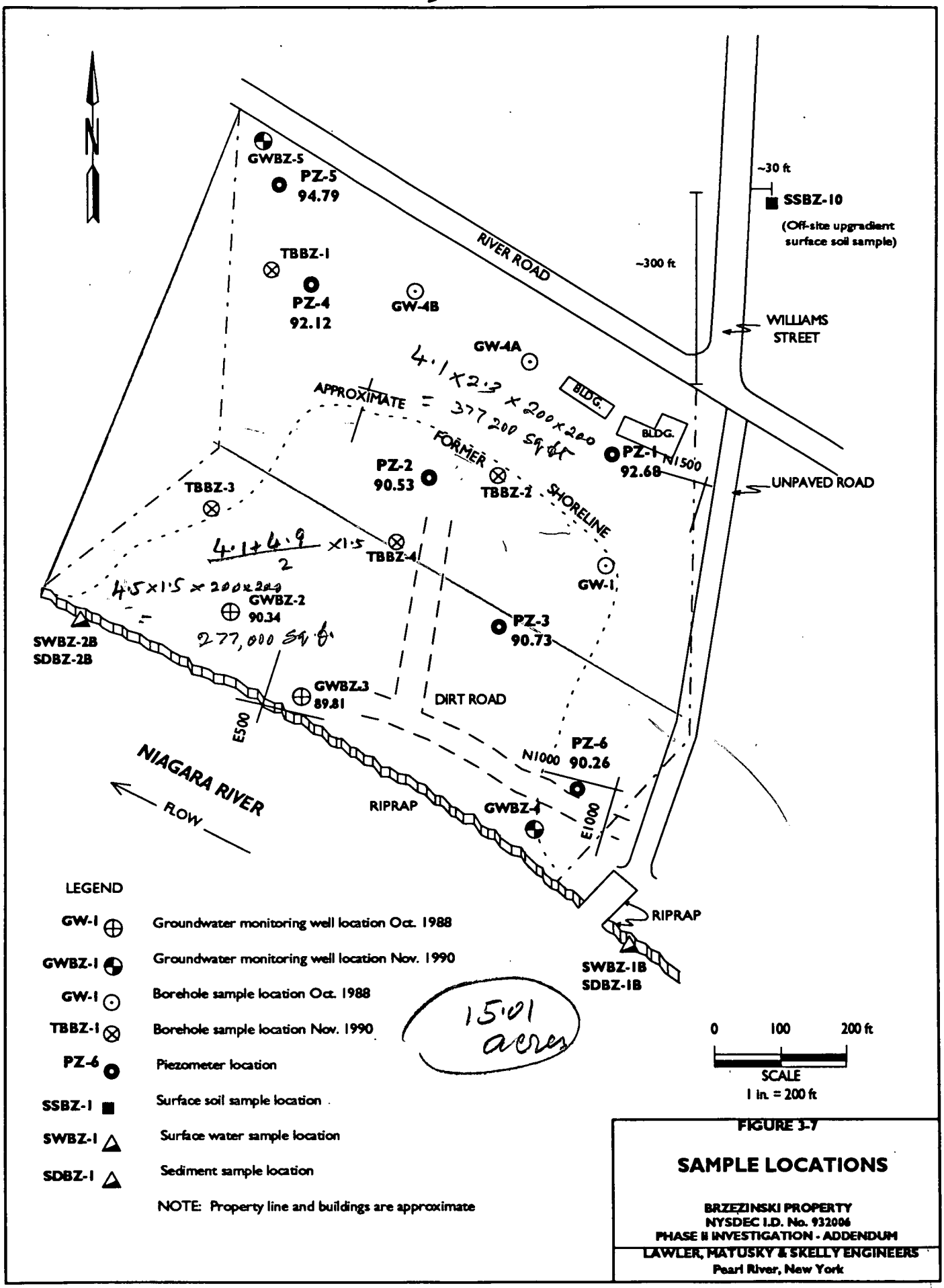

FIGURE 3-7

SAMPLE LOCATIONS

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and a CGI. An on-site LMS geologist logged each sample by describing fill and soil characteristics and any visible contamination (Appendix D).

TBBZ-1 (Figure 3-7) was augered to 20 ft below grade; split-spoon samples were collected continuously in 2-ft intervals to 22 ft below grade. A light-brown silty sand with some clay and gravel was encountered from the surface to 6 ft below grade. From 6 to 10 ft below grade a black, wet, silty sand mixture (ash and refuse) was noted; an impermeable, compact, brown clay with a trace of silt was present from 10 to 22 ft below grade. FID readings were 600 units at approximately 7 ft below grade and CGI readings were background. A soil sample was sent to Aquatec for analysis from a depth of approximately 6 to 8 ft. At the termination of drilling the hole was sealed with a cement/bentonite slurry.

TBBZ-2, located near the center of the site, was drilled to 18 ft, with continuous split-spoon samples taken to a depth of 20 ft (Figure 3-7). A light-brown clay with some silt was present from 0 to 2 ft. A black, moist, silty sand mixture (ash and refuse) was present at 2 to 10 ft, and a dry, compact, red-brown clay at 10 to 20 ft below grade. FID readings at 8 ft were 100 units, with CGI and PID readings at background. A soil sample from 5 to 7 ft was preserved and sent to Aquatec for analysis.

TBBZ-3 and -4 (Figure 3-7) were augered to 22 ft, with continuous split-spoon sampling to 24 ft; soils at each boring were similar. A light-brown clay zone was present from 0 to 2 ft, followed by a wet, silty sand mixture (ash and refuse) from approximately 2 to 16 ft below grade. At 16 ft a gray-to-black, medium-to-coarse sand (river sediments) was noted to 23 ft, followed by a red clay to 24 ft. TBBZ-3 had FID readings of 200 units at 5 to 7 ft, with PID and CGI readings at background. A soil sample from TBBZ-3 was collected from 5 to 7 ft and sent to Aquatec for analysis. TBBZ-4 had FID readings of 30-200 units, with PID and CGI readings at background. A soil sample from TBBZ-4 from 12 to 14 ft below grade was preserved and sent to Aquatec for analysis.

3.4 INSTALLATION OF GROUNDWATER MONITORING WELLS

The initial groundwater survey, using static water levels in the piezometers, revealed a gradual drop in the water table in the direction of the river (Figure 3-8). It was determined (with NYSDEC approval) that upgradient monitoring well GWBZ-5 would be located in the north-western corner of the site, close to River Road (Figure 3-7). Based on the groundwater depth in the piezometers, it was determined that GWBZ-5 would be 15 to 20 ft in depth, depending on the availability of saturated zones. The downgradient monitoring well, GWBZ-4, was to be located on the southeastern corner of the site, close to the Niagara River (Figure 3-7). This well would be 20 to 30 ft in depth. In both locations it was decided to have the option to screen intervals of 10 ft or more to tie in saturated zones that might be separated by less permeable zones of silt and clay. The downgradient monitoring well location was identified by the soil gas survey as containing relatively moderate levels of 1,1,1-TCA and tetrachloroethylene. Because of its relatively low groundwater elevation and its location near the large underground water discharge line, a well in this area should intercept migratory contaminants from the site.

American Auger and Ditching Co., under the direction of LMS, installed the two groundwater monitoring wells on 28 November 1990. The upgradient well, GWBZ-5, was located as planned, approximately 20 ft off River Road (Figure 3-7). GWBZ-4, the downgradient well, was located approximately 20 ft from the Niagara River (Figure 3-7). Both wells were drilled using a truck-mounted drilling rig with a 4.25-in. hollow-stem auger. Continuous split-spoon samples were collected every 2 ft ahead of the augers to obtain undisturbed samples and were monitored with a PID, a CGI, and a FID. Soil samples were preserved and sent for analysis from the zone exhibiting the highest levels of detectable contamination. All soil samples were analyzed by Aquatec for TCL analytes, volatiles and semivolatiles, PCBs/pesticides, metals and cyanide, EP toxicity metals, and reactivity in accordance with EPA SOW protocol (Appendix F). An on- site LMS geologist logged each sample by describing fill and soil characteristics (Appendix D).

GWBZ-5 was augered to 20 ft below grade. Present throughout the hole was a red-to-brown compact clay with silty sand zones. At approximately 2-4 ft FID readings were 70 units, with

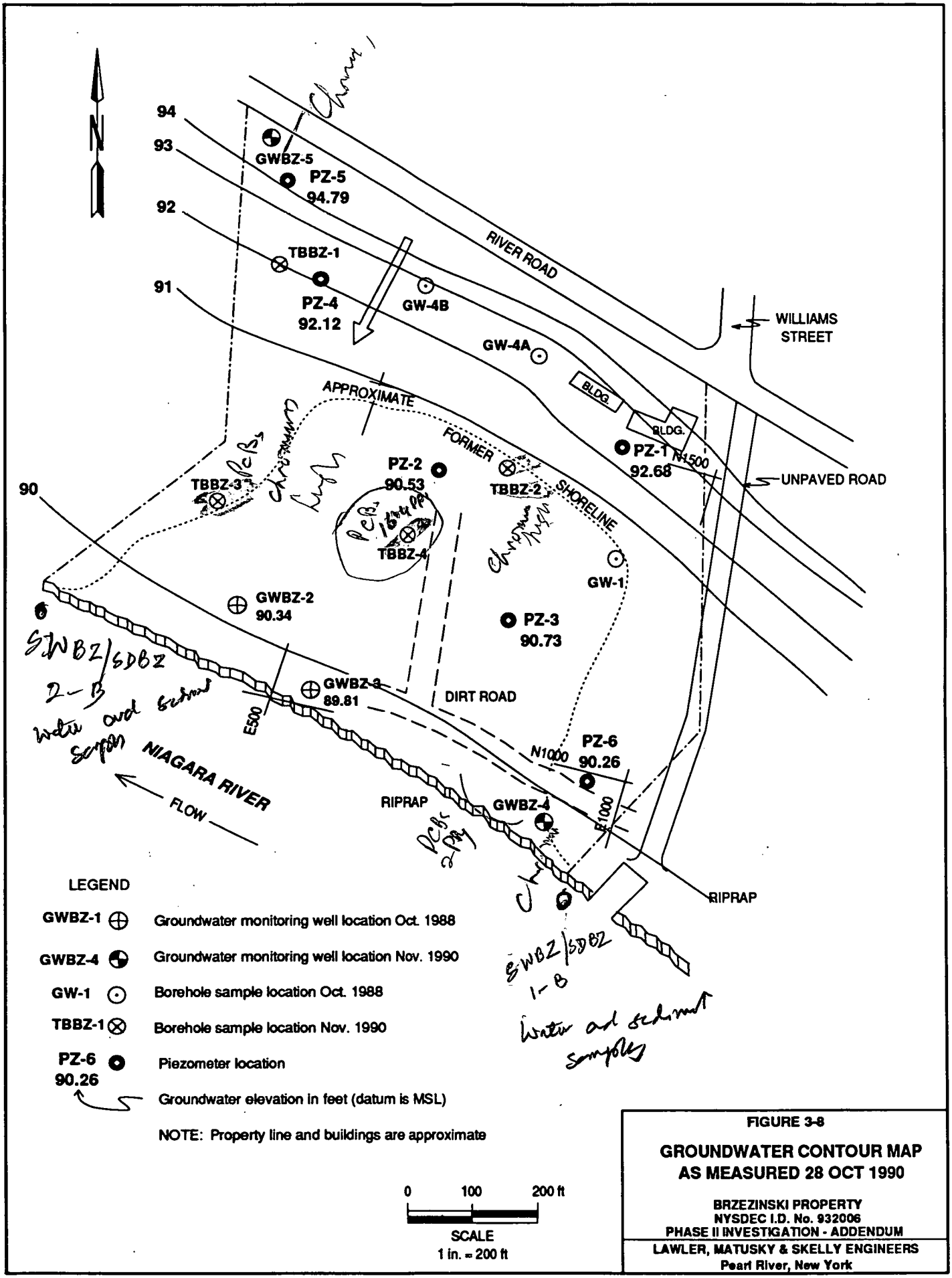

FIGURE 3-8

GROUNDWATER CONTOUR MAP AS MEASURED 28 OCT 1990

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PID readings up to 600 units. A soil sample from this depth was preserved and sent to Aquatec for analysis. GWBZ-4 was augered to 22 ft below grade. From the surface to approximately 16 ft a moist, black, silty sand mixture (ash and refuse) with some concrete fragments was noted. From 16 to 22 ft a very fine sand (river sediments) that increased in grain size with depth was present. At approximately 10 ft FID readings were >1000 units and PID readings were approximately 100 units. A soil sample from 10 to 12 ft was preserved and sent to Aquatec for analysis.

GWBZ-4 and -5 were screened with 10 slot, 2-in.-diameter schedule 40 PVC. GWBZ-5 had a 15-ft section of screen, GWBZ-4 a 10-ft section. A 2-in.-diameter PVC riser was then extended to approximately 4 ft above grade, and the space between the borehole and the screen was filled with No. 3 sand to approximately 1 ft above the screen. A 1-ft bentonite seal was placed above the sand pack, followed by a grouting seal. A locking protective casing was placed over the top of the PVC riser and set in the cement. Appendix D contains the well installation specifications.

During well development, GWBZ-4 was pumped for approximately 2 hrs, with a yield of 2 gal/min. The well was then air lifted for approximately half an hour and pumped again for half an hour until turbidity measured below 50 nephelometric turbidity units (NTU). GWBZ-5 was pumped dry in approximately 15 min, allowed to recover for approximately 5 min, and again pumped dry in 15 min. This sequence was repeated, after which the well was air lifted for approximately 1 hr. After the well was again pumped dry and allowed to recover for 1 hr, turbidity was still above 50 NTU.

3.5 AIR MONITORING

Portable air monitoring instruments (PID, FID, and CGI) were used to detect any possible health hazards to on-site personnel and to screen soil samples for possible analysis. Air monitoring was performed during the drilling of all piezometers, monitoring wells, and soil borings. Breathing zones were monitored continuously during all activities, including drilling and the soil gas survey, with readings at background levels.

3.6 SAMPLING

Groundwater from the two existing monitoring wells and the two newly installed monitoring wells was sampled by an LMS crew on 5 and 6 December 1990. Two surface water/sediment locations and one upgradient surface soil location were sampled on 6 December 1990. All sample locations and methods were discussed with and approved by NYSDEC personnel before sampling proceeded.

3.6.1 **Groundwater Sampling**

The four monitoring wells (GWBZ-2, -3, -4, and -5) were purged and sampled according to NYSDEC protocols and the samples were submitted to Aquatec for analysis. All groundwater samples were analyzed for TCL organics, volatile and semivolatile fractions, PCBs/pesticides, and metals and cyanide in accordance with EPA SOW protocol. The samples were also analyzed for chemical oxygen demand (COD), total suspended solids (TSS), total dissolved solids (TDS), pH, and specific conductance.

Prior to sampling, the initial top of static water levels and monitoring well bottom depths were measured with an electronic water level meter to within 0.01 ft. The volume of water to be purged was calculated based on borehole diameter and height of the water column. When an overburden or interface well is purged, the sand pack is considered in the purge volume calculation. Two methods were used to purge the wells. The first, generally used on poor- yielding deep wells, involves purging with a dedicated laboratory-cleaned PVC bailer. The second method, generally used on shallow, medium-to-high-yield wells, entails purging with a centrifugal pump and dedicated polyethylene tubing and foot valve.

When purging, the bottom of the well is generally purged first to remove any accumulated fines. The pumping rate is then adjusted to maintain a steady recovery and pumping volume. When a steady state is achieved and any silt has been removed from the bottom of the well, the intake of the tubing is gradually raised to the top of the water column to ensure that the entire water column has been purged. If the well purges dry before the calculated volume has been removed, it is allowed to recover and is purged again to ensure that the groundwater

in the immediate area is removed. In general, at least four borehole volumes are purged from a well unless it purges dry before this is accomplished. Turbidity, specific conductance, pH, and temperature are measured with calibrated instruments at intervals during the purging. The objective of the purging process is to ensure the presence of representative groundwater samples with turbidity values of 50 NTU or less so as to meet NYSDEC requirements of water clarity for sample analysis. In low-yielding wells it is not always possible to meet the turbidity requirements.

Following purging, the wells were allowed to recover to at least 95% of the initial water column volume before sampling commenced. Samples were collected with dedicated laboratory-cleaned Teflon bailers from the top of the well water column. Temperature, pH, specific conductance, and turbidity were measured at the start and end of sampling (Table 3-1). Samples were placed in precleaned bottles/vials provided by Aquatec. All sample bottles were labeled with the site name, job number, sample identification, date/time, and parameters for analysis. Preservatives were added in the field when applicable. Sample containers were then packed in iced coolers to maintain a temperature of 4°C and delivered to Aquatec for analysis each sampling day under chain-of-custody protocol via overnight courier. Well sampling and other associated logs are contained in Appendix E.

3.6.1.1 ***GWBZ-2.*** This existing overburden well was purged with a centrifugal pump equipped with dedicated polyethylene tubing and a foot valve. The well purged dry with the removal of 3 gal of groundwater. After recovery, it was purged dry three more times. A total of 13 gal was removed, with turbidity remaining above 200 NTU during the purging process. Before the groundwater sample was collected, a field blank was collected at an on-site sampling location by pouring field blank water, provided by the analytical laboratory, through a typical sample bailer into a clean set of sample containers. This set, labeled *Field Blank*, was analyzed to monitor possible routes of contamination during the sample acquisition process. Following the field blank collection procedure, GWBZ-2 was sampled with the same bailer. As sample turbidity was over 100 NTU, the crew collected an extra sample and filtered it through a 0.45-micron filter for dissolved TCL metals analysis.

TABLE 3-1

GROUNDWATER CHEMISTRY

Brzezinski Landfill

MONITORING WELL ID	VOLUME PURGED (gal)	TEMPERATURE (°C)	pH (units)	SPECIFIC CONDUCTANCE (µmhos/cm @ 25°C)	TURBIDITY (NTU)
		START/END	START/END	START/END	START/METALS*/END
GWBZ-2	13	9.1/9.9	7.2/7.2	1838/1860	123/132/144
GWBZ-3	72	7.8/8.9	7.5/7.5	739/724	12/10/08
GWBZ-4	75	9.8/10.6	7.5/7.3	1445/1577	71/70/62
GWBZ-5	19	9.5/9.7	7.1/7.1	2560/2520	29/27/26

*Metals sample turbidity measured to verify NTU value.

3.6.1.2 *GWBZ-3.* This existing overburden monitoring well was purged with a centrifugal pump with dedicated tubing and a foot valve. The well was purged at 2 gpm throughout the water column. The monitoring well exhibited a good yield, with 72 gal purged. The turbidity of the purged water decreased quickly during the purging process and remained below 15 NTU during sample acquisition. In addition to the regular set of bottles filled for GWBZ-3, a second set of bottles was filled and labeled GWBZ-1. This blind duplicate sample was sent to the analytical laboratory as a check of their precision. The sample bottles for each analytical parameter (e.g., volatile organics, metals) from each set of bottles (GWBZ-1 and -3) were filled simultaneously to ensure sample homogeneity.

3.6.1.3 *GWBZ-4.* This overburden well installed in the southeast corner of the site was purged with a centrifugal pump with polyethylene tubing and a foot valve. It was purged throughout the water column at 1-1.5 gpm. The turbidity of the purged water decreased gradually during the purging procedure. By slowly and carefully lowering and raising the bailer during sample collection, the crew was able to keep the turbidity below 75 NTU. The crew noted a sulfur-like odor emanating from the sample water.

3.6.1.4 *GWBZ-5.* This overburden well installed in the northwest corner of the site was purged with a laboratory-cleaned PVC bailer. The well purged dry with the removal of 12 gal. After recovery it was purged dry again. A total of 19 gal of groundwater was removed. Purge water turbidity increased as the crew purged the well, especially near the bottom. The well was allowed to recover for 2 hrs before sampling commenced. By slowly and carefully raising and lowering the bailer, the crew was able to keep the turbidity below 30 NTU during sample acquisition.

3.6.2 Surface Water/Sediment Sampling

The two surface water/sediment locations selected by LMS followed workplan recommendations and were approved by NYSDEC before sampling commenced. Both locations are situated along the southern edge of the site in the Niagara River. SWBZ/SDBZ-1B is located at the toe of the riprap east of the slip in the southeast corner

of the site. SWBZ/SDBZ-2B is located at the toe of the riprap in the southwest corner of the site.

Temperature, pH, specific conductance, and turbidity of the surface water samples (SWBZ-1B and -2B) were measured and recorded in the field at the time of sample collection:

SURFACE WATER I.D.	TEMPERATURE (°C)	pH (units)	SPECIFIC CONDUCTANCE (µmhos/cm @ 25°C)	TURBIDITY (NTU)
SWBZ-1B	4.4	8.5	378	27
SWBZ-2B	4.5	8.3	347	35

The samples were collected directly into the sample containers. The sediment samples (SDBZ-1B and -2B) were collected from the sediment under their respective surface water sample locations. Sediments sampled were collected with laboratory-cleaned stainless steel spoons. Labeling, preservation, chain-of-custody, and shipping procedures were identical to those described for the groundwater samples. The samples were shipped to Aquatec for analysis. The surface water and sediment samples were analyzed for TCL organics, volatile and semivolatile fractions, PCBs/pesticides, and metals and cyanide in accordance with the SOW. In addition, the surface water samples were analyzed for COD, TSS, TDS, pH, and specific conductance. Surface water and sediment logs are presented in Appendix E.

3.6.3 Surface Soil Sampling

One surface soil sample was collected on 6 December 1990. The location was selected from workplan recommendations and approved by NYSDEC before sampling commenced (Figure 3-7). SSBZ-10 is an off-site upgradient sample location situated approximately 300 ft north of the site, east of Williams Street. The crew selected an undisturbed area 30 ft from the roadbed near the telephone right-of-way. After the sod was removed, the sample was collected from a depth of 0-6 in. with a laboratory-cleaned stainless steel spoon. Labeling, preservation, chain-of-custody, and shipping procedures were identical to those described for

the groundwater samples. The soil sample was analyzed by Aquatec for TCL organics, volatile and semivolatile fractions, PCBs/pesticides, and metals and cyanide. The soil sample log is presented in Appendix E.

CHAPTER 4

SITE ASSESSMENT

4.1 HYDROGEOLOGY

One of the objectives of the additional Phase II investigation at the Brzezinski Property site was to obtain a better understanding of the site hydrogeology than that presented in the original Phase II report. No upgradient well was installed during the original investigation, and the effect of bank storage on the downgradient wells near the shoreline was thus unknown. The additional investigations provided more information on the site soils and water levels based on six piezometers, four new test borings, and two new monitoring wells. The subsurface data indicated that there are generally four distinct soil/fill horizons across the site. The thickness of each horizon varies, depending on its location within the site, particularly in relation to the old cove area. The water level data confirmed that groundwater flow is toward the river; however, hydrogeology is affected by the site soil/fill and the river.

Deposits inside the former shoreline area were characterized using information from borings TBBZ-2, -3, and -4 as well as monitoring well GWBZ-4. As no split-spoon samples were collected during installation of the piezometers, only basic characterization data could be added.

The surface cover layer consisted of fine-grained material (silty clay with mixed sands) to a depth of approximately 2 ft. The cover varied over the area as industrial wastes either protruded through the cover or were deposited on the surface at many locations. Industrial waste identified below the cover material consisted of black ash, cinders, wood, and cement. The fill material between 6 and 8 ft and the sand below this fill was blackened from the downward movement of the ash or decomposition of organic material. Sediments below the fill consisted of approximately 10 ft of material of fluvial (river) origin that was made up primarily of silty sands, gravels, and shells. Grain size increased with depth, identifying this as a zone that was formerly exposed to or within the river channel. Red to red-brown clay

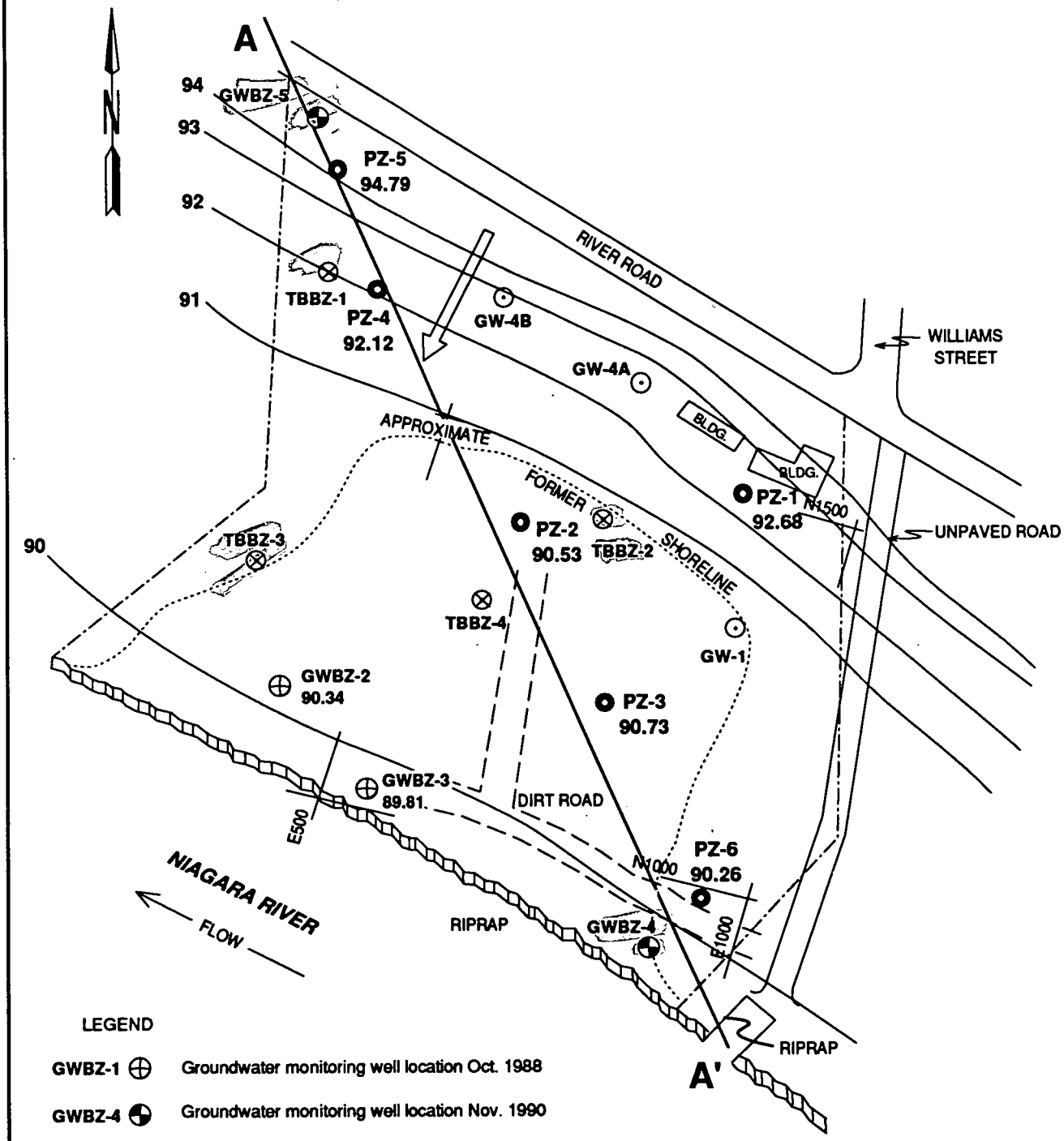
was identified below the sand and gravel layer, which was well below the surface of the Niagara River. No bedrock was encountered within the old inlet area.

Several borings were located outside the former shoreline, including GWBZ-5, TBBZ-1, and the initially installed GW-4B and GW-4A. During installation of these borings, the upper 4 to 6 ft of material was found to be composed of mixed silt, clays, and sands with mixed fill in amounts smaller than those identified in the previously described borings. The boring logs for GWBZ-5 and the formerly drilled GW-4A and -4B show small amounts of industrial fill material mixed with clay and silt layers of Canandaigua soils. TBBZ-1 shows 3 to 4 ft of industrial fill material followed by compact, relatively impermeable clays and silts characteristic of the Canandaigua soils. No bedrock was encountered outside the former shoreline.

The overburden groundwater contours for the Brzezinski site based on the new data are presented in Figure 3-8. The new data include four monitoring wells and six piezometers located throughout the site, enabling a contour map (Figure 4-1) and cross-sectional profile (Figure 4-2) to be drawn. The flow is in a general north-south direction from River Road to the Niagara River. The groundwater gradient is steeper in the northern section of the site, outside the former cove area. However, the gradients appear to contradict the soil data: the northern area has less till material and more of the fine-grained sediments that should restrict the flow than the cove area, which consists of mostly permeable fill materials. Also, the upgradient wells/piezometers have generally low yields compared to the shoreline wells, which corroborates the subsurface soil data. One explanation for this hydrogeology is the effect of the river, i.e., bank storage. Because the nearshore areas are fill and there is no impermeable barrier to the river, river water is stored along the shoreline (bank). The result is that the nearshore groundwater has a flatter gradient. It may also mean that the nearshore monitoring wells are diluted by river water.

4.2 ADDITIONAL PHASE II RESULTS

During the initial Phase II investigation, two monitoring well samples indicated the presence of chloroethane, 4,4-DDT, PCB Aroclors, and lead in concentrations exceeding New York State groundwater standards. The groundwater samples were taken from two downgradient



LEGEND

GWBZ-1 ⊕	Groundwater monitoring well location Oct. 1988
GWBZ-4 ◔	Groundwater monitoring well location Nov. 1990
GW-1 ⊙	Borehole sample location Oct. 1988
TBBZ-1 ⊗	Borehole sample location Nov. 1990
PZ-6 90.26 ◉	Piezometer location
	Groundwater elevation in feet (datum is MSL)
A A'	Site cross section line

NOTE: Property line and buildings are approximate

0 100 200 ft

SCALE
1 in. = 200 ft

FIGURE 4-1

LOCATION OF CROSS SECTION

BRZEZINSKI PROPERTY
NYSDEC I.D. No. 932006
PHASE II INVESTIGATION - ADDENDUM

LAWLER, MATUSKY & SKELLY ENGINEERS
Pearl River, New York

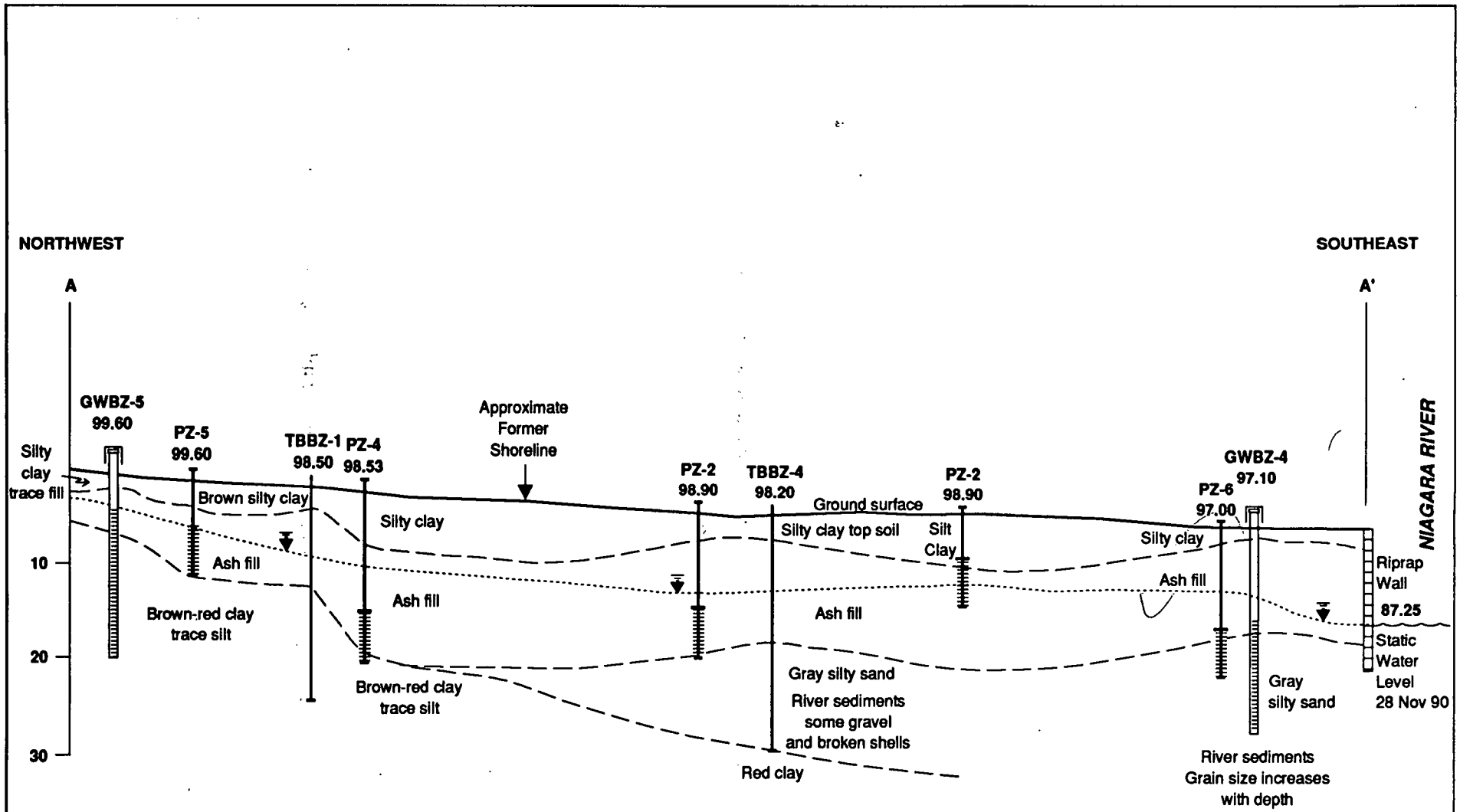


FIGURE 4-2

GENERALIZED CROSS SECTION A - A'

BRZEZINSKI PROPERTY
NYSDEC I.D. No. 932006
PHASE II INVESTIGATION - ADDENDUM

LAWLER, MATUSKY & SKELLY ENGINEERS
Pearl River, New York

wells installed in the artificially filled cove. An attempt to install an upgradient well failed because of the low permeability of the silts and clays that constitute the site stratigraphy. One soil sample, taken from a depth of 16 ft, showed extremely high concentrations of TCE, and methylene chloride, acetone, 1,2-dichloroethane, 1,1,1-TCA, toluene, ethylbenzene, and xylenes were also detected.

The supplemental Phase II work objectives were designed to document and delineate the presence of hazardous contaminants on the site, define groundwater movement and contaminant migration, and determine the impacts of groundwater contaminant migration on surface water quality. The supplemental work plan developed to meet these objectives included a preliminary soil gas survey to determine the areas of highest concentration of volatile organic contaminants. Based on the soil gas results, test borings were augered to collect soil samples at various depths. Six piezometers were installed to determine the groundwater contours on the site (Figure 4-1). One upgradient (GWBZ-5) and one downgradient (GWBZ-4) monitoring well were installed according to these groundwater contours. Two surface water and corresponding sediment samples were collected at upgradient and downgradient locations in the Niagara River. Field procedures for the soil gas survey and installation of monitoring wells and test borings are discussed in Chapter 3; sample locations are presented in Figure 3-7.

The samples were sent to Aquatec for analytical analyses. Groundwater and surface water samples were analyzed for TCL volatiles and semivolatiles, pesticides/PCBs, and metals and cyanide as well as COD, TSS, TDS, specific conductivity, and pH. Sediment samples corresponding to the surface water samples were analyzed for TCL volatiles and semivolatiles, pesticides/PCBs, and metals and cyanide. The test boring soil samples were analyzed for TCL volatiles and semivolatiles, pesticides/PCBs, metals and cyanide, reactive cyanide and sulfide, and EP toxicity metals. An off-site background surface soil sample was analyzed for TCL volatiles and semivolatiles, pesticides/PCBs, and metals and cyanide. All data were determined by LMS to be usable without qualification (Appendix G).

4.2.1 Soil Gas Results

The soil gas survey results, determined by a mobile GC lab, are summarized in Table 4-1. VOCs typical of solvents and degreasers, including TCE, tetrachloroethylene, and 1,1,1-TCA, were the most pervasive compounds detected throughout the site. Concentration contours for these compounds are shown in Figures 3-4, 3-5, and 3-6, respectively. TCE ranged from 2.9 to 170 ppb, with the highest concentration located in the center of the site between River Road and the former shoreline. A smaller pocket located near MWBZ-4 and the southeast shoreline contained concentrations of approximately 40 ppb. Tetrachloroethylene ranged from <1.0 to 50 ppb, with the highest concentration located near MWBZ-4 and the southeast shoreline. A larger area located centrally between River Road and the former shoreline contained concentrations of approximately 30 ppb. 1,1,1-TCA ranged from 1.0 to 93 ppb, with the highest concentration located in the center of the site within the fill area. A small pocket located near MWBZ-4 and the southeast shoreline contained concentrations near 20 ppb.

Localized concentrations of benzene were detected at 1900, 120, and 130 ppb in SG-16, -31, and -33, respectively (Figure 3-2). Ortho-xylene was detected at 210 ppb (SG-44) and 620 ppb (SG-47) near old boring GW-4B. SG-47 also contained 430 ppb of meta- and para-xylene. Benzene, toluene, ethylbenzene, and xylene (BTEX) are primarily indicative of gasoline contamination. Chloroform was detected in the range of 4.9-110 ppb, generally in the northern/middle portion of the site. Carbon tetrachloride, a cleaning agent and solvent, was detected in the southeast corner (SG-41) at 50 ppb.

Methane and unknown hydrocarbons were detected but not quantified throughout most of the site, but primarily in the northwest section. They were also detected in the eastern portion of the site at SG-31, near the southeast shoreline at SG-41, and in the southwest shoreline at SG-40.

TABLE 4-1 (Page 1 of 2)

1990 SOIL GAS DATA SUMMARY

Brzezinski Landfill NYSDEC I.D. No. 932006

PARAMETER	SG-1 (6 ft)	SG-2 (5 ft)	SG-3 (4.5 ft)	SG-4 (4 ft)	SG-5 (4.2 ft)	SG-6 (4 ft)	SG-7 (5 ft)	SG-8 (5.1 ft)	SG-9 (5 ft)	SG-10 (5.1 ft)	SG-11 (5 ft)	SG-12 (3.5 ft)
Chloroform	ND	*	*	11	ND	ND	20	17	ND	26	7.7	*
1,1,1-Trichloroethane	ND	*	*	3.2	ND	ND	ND	ND	ND	ND	ND	*
Trichloroethene	6.1	*	*	16	ND	29	8.5	14	11	40	49	*
Tetrachloroethene	3.2	*	*	36	ND	1.8	ND	ND	ND	ND	ND	*
Methane	ND	*	*	ND	ND	ND	ND	ND	ND	ND	D	*
Unknown hydrocarbons	ND	*	*	ND	ND	ND	ND	ND	ND	ND	D	*

PARAMETER	SG-13 (4.5 ft)	SG-14 (5 ft)	SG-15 (4.5 ft)	SG-16 (3.5 ft)	SG-17 (4.5 ft)	SG-18 (4.5 ft)	SG-19 (5.2 ft)	SG-20 (4.5 ft)	SG-21 (4.5 ft)	SG-22 (4 ft)	SG-23 (2 ft)	SG-24 (3 ft)
Chloroform	ND	ND	ND	ND	*	*	ND	110	ND	ND	21	*
1,1,1-Trichloroethane	3.4	24	ND	3.2	*	*	1.6	6.4	ND	ND	ND	*
Trichloroethene	18	72	9.1	150	*	*	18	8.1	31	14	17	*
Tetrachloroethene	ND	ND	ND	6.6	*	*	ND	18	ND	ND	ND	*
Benzene	ND	ND	ND	1900	*	*	ND	ND	ND	ND	ND	*
Methane	D	D	D	D	*	*	NR	D	D	D	D	*
Unknown hydrocarbons	D	D	D	D	*	*	NR	ND	D	D	ND	*

All data in parts per billion (ppb) on volume per volume basis in the soil gas.

* - No sample collected due to subsurface conditions.

D - Detected but not quantified.

ND - Not detected at analytical detection limit; see Appendix F for detection limit.

NR - Not run.

TABLE 4-1 (Page 2 of 2)

1990 SOIL GAS DATA SUMMARY

Brzezinski Landfill NYSDEC I.D. No. 932006

PARAMETER	SG-25 (4 ft)	SG-26 (3.5 ft)	SG-27 (4.5 ft)	SG-28 (3 ft)	SG-29 (4.5 ft)	SG-30 (3 ft)	SG-31 (5 ft)	SG-32 (4.7 ft)	SG-33 (5 ft)	SG-34 (5.2 ft)	SG-35 (3 ft)	SG-36 (4.9 ft)
Chloroform	ND	*	ND	ND	ND	ND	ND	12	ND	26	*	4.9
1,1,1-Trichloroethane	49	*	ND	ND	ND	ND	ND	93	ND	ND	*	ND
Carbon tetrachloride	ND	*	ND	ND	ND	ND	ND	9.5	ND	ND	*	<1.0
Trichloroethene	18	*	ND	7.1	ND	14	21	66	10	19	*	16
Benzene	ND	*	ND	ND	ND	ND	120	ND	130	ND	*	66
Tetrachloroethene	25	*	ND	ND	ND	ND	ND	3.6	ND	22	*	<1.0
Methane	ND	*	ND	D	NR	ND	D	ND	D	ND	*	ND
Unknown hydrocarbons	ND	*	ND	D	NR	ND	D	ND	D	ND	*	ND

PARAMETER	SG-37 (4 ft)	SG-38 (3.5 ft)	SG-39 (4.5 ft)	SG-40 (3 ft)	SG-41 (4.5 ft)	SG-42 (3 ft)**	SG-43 (5 ft)	SG-44 (4.7 ft)	SG-45 (5 ft)	SG-46 (5.2 ft)	SG-47 (3 ft)	SG-48 (16 ft)
1,1,1-Trichloroethane	5.6	9.1	*	ND	18	ND	ND	ND	1.0	*	ND	*
Carbon tetrachloride	<1.0	1.6	*	ND	1.2	ND	ND	ND	ND	*	ND	*
Trichloroethene	29	64	*	7.1	170	ND	9.3	8.0	4.4	*	2.9	*
Tetrachloroethene	ND	32	*	ND	50	<1.0	ND	ND	1.3	*	ND	*
o-Xylene	ND	ND	*	ND	ND	ND	ND	210	ND	*	620	*
m&p-Xylene	ND	ND	*	ND	ND	ND	ND	ND	ND	*	430	*
Methane	ND	ND	*	D	D	ND	D	D	ND	*	D	*
Unknown hydrocarbons	ND	ND	*	D	D	ND	D	D	ND	*	D	*

All data in parts per billion (ppb) on volume per volume basis in the soil gas.

* - No sample collected due to subsurface conditions.

** - Groundwater sample: results in µg/l of groundwater.

D - Detected but not quantified.

ND - Not detected at analytical detection limit; see Appendix F for detection limit.

NR - Not run.

4.2.2 Soil Data

Four soil borings were drilled with a hollow-stem auger in areas identified by the soil gas survey as having relatively high combined concentrations of organic contaminants. Continuous split-spoon samples were taken 2 ft ahead of the auger to obtain representative samples. Two soil borings were also collected during the installation of the new monitoring wells. The summarized results for the analyses performed on the test boring samples (TBBZ-1 [6-8 ft], TBBZ-2 [5-7 ft], TBBZ-3 [5-7 ft], and TBBZ-4 [12-14 ft]), monitoring well samples (MWBZ-4 [10-12 ft] and MWBZ-5 [2-4 ft]), and the background surface soil sample (SSBZ-10) are presented in Table 4-2. LMS has determined all the data are usable without qualification.

4.2.2.1 *Volatile Organics*. Methylene chloride and acetone were detected in most of the soil samples. One tentatively identified compound (TIC), 2-methylpropane, was also detected in MWBZ-5. All of these reported concentrations were qualified as present in the associated blanks. The presence of these compounds is most likely due to laboratory contamination and not from site activity. However, the acetone concentrations detected in TBBZ-1, -2, and -3 at 31, 71, and 37 µg/kg, respectively, are elevated sufficiently to suspect site activity. A definitive conclusion regarding the origin of these high acetone concentrations can be made only with additional soil blank samples. Therefore, it is unclear if the presence of elevated acetone concentrations in these samples is due to site activity or laboratory contamination.

No other volatiles were detected in either monitoring well soil sample. Trace concentrations of carbon disulfide (6 µg/kg), a combined BTEX concentration of 19 µg/kg, and two TICs (35 µg/kg) were detected in TBBZ-1. TBBZ-2 contained trace levels of chloroethane, toluene, and TCA as well as 15 µg/kg of 2-butanone (methyl ethyl ketone [MEK]). Carbon disulfide at 10 µg/kg, BTEX compounds at 9 µg/kg, and three TICs at approximately 2500 µg/kg were detected in TBBZ-3. Sample TBBZ-4 contained a total BTEX concentration of 21 µg/kg as well as 53 µg/kg of chloroethane. With the exception of methylene chloride, which is likely a laboratory contaminant, no volatiles were detected in the background surface soil sample SSBZ-10. The pattern and concentration of contaminants detected in the test borings suggest widespread, intermittent dispersal of volatiles throughout the site stratigraphy.

TABLE 4-2 (Page 1 of 6)

DECEMBER 1990 SOIL AND SEDIMENT DATA SUMMARY

Brzezinski Landfill NYSDEC I.D. No. 932006

PARAMETER	MWBZ-4 (10-12 ft)	MWBZ-5 (2-4 ft)	TBBZ-1 (6-8 ft)	TBBZ-2 (5-7 ft)	TBBZ-3 (5-7 ft)	TBBZ-4 (12-14 ft)	BACKGROUND SSBZ-10	BACKGROUND DUPL. SSBZ-10	SDBZ-1B	SDBZ-2B	NATIVE SOILS CONC. TYPICAL RANGE (r)
METALS (mg/kg)											
Aluminum	6500	12400	7420	7730	5700	4250	17800	1600	1290	8640	10000 - 300000
Antimony	ND N	ND N	ND N	ND N	ND N	ND N	ND N	ND N	ND N	ND N	0.6 - 10.0
Arsenic	6.6 SA N	33.4 N +	10.3 N +	12.6 N +	10.2 N +	9.2 N +	12.6 SA N	13.2 SA N	1.3 SA N	4.2 SA N	1.0 - 40
Barium	ND N R	307 N R	198 N R	117 N R	130 N R	ND N R	430 N R	113 N R	ND N R	93.4 N R	100 - 3500
Beryllium	ND	ND	ND	ND	ND	ND	0.86	0.8	ND	ND	0.1 - 40
Cadmium	ND N	2.5 N	7.0 N	3.0 N	1.6 N	ND N	2.4 N	2.2 N	ND N	2.2 N	0.01 - 7.0
Calcium	27900	44800	29300	19200	12500	21400	56600	62800	24300	125000	100 - 400000
Chromium	54.9	54.1	34.1	93.3	262	16	25.6	23.7	5.0	45.4	5.0 - 3000
Cobalt	ND	9.0	ND	ND	10.5	ND	11.8	10.9	ND	ND	1.0 - 40
Copper	18.2	76.9	83.7	49.2	67.6	13.9	21.6	21.5	6.8	30.6	2.0 - 100
Iron	12500	27700	76400	39900	22700	12900	33500	30400	4940	23400	7000 - 550000
Lead	41.9 SA	135 E N	80.4 SA	137 E N	49.7 SA	14.3 SA	16.8 SA	14.3 SA N	20.8 SA	255 E N	2.0 - 200
Magnesium	9540	6420	5420	6120	1610	6980	14600	12600	5670	13200	600 - 6000
Manganese	228	410	485	483	225	240	619	579	120	327	100 - 4000
Mercury	0.09	4.6	0.56	0.31	0.42	0.13	ND	ND	0.07	0.05	0.01 - 0.08
Nickel	99.3 N	44.9 N	48.1 N	38.2 N	517 N	20.6 N	29.7 N	25.7 N	9.7 N	18.9 N	5.0 - 1000
Potassium	ND	1830	ND	ND	ND	ND	3290	2770	213	ND	400 - 30000
Selenium	ND W N	ND W N	ND E M N	ND N	ND W M N	ND N	ND N	ND W N	ND W N	ND N	0.1 - 2.0
Silver	ND N	9.2 N	ND N	ND N	ND N	ND N	ND N	ND N	ND N	ND N	0.1 - 5.0
Sodium	ND	ND	2400	ND	ND	ND	ND	ND	ND	ND	750 - 7500
Thallium	ND	ND N	ND N	ND N	ND W N	ND N	ND W N	ND W N	ND W N	ND W N	0.1 - 0.8 (q)
Vanadium	11	39.9	15.1	33.8	29.1	10.1	33.4	30.9	ND	22.4	20 - 500
Zinc	98.5 E	252 E	542 E	280 E	554 E	161 E	68.8 E	68.6 E	50.9	136 E	10 - 300
Cyanide	ND	3.1	ND	ND	ND	ND	ND	ND	1.5	ND	-
Percent solids (%)	73.6	76.8	76.1	81.5	85.4	79.2	84	80.3	79.4	78.7	-

4-6(1)

\+ - Correlation coefficient for the MSA is <0.995.
(r) - Dragun, J., The Soil Chemistry of Hazardous Materials.
(q) - Bowan, H.J., Environmental Chemistry of the Elements.
E - Value estimated due to interference.
M - Duplicate injection precision not met.
N - Spiked sample recovery is not within control limits.
R - Duplicate analysis not within control limits.
W - Post-digestion spike out of control limits; sample absorbance is less than 50% of spike absorbance.
ND - Not detected at analytical detection limit; see Appendix F for detection limit.
SA - Value determined by the method of standard addition.

TABLE 4-2 (Page 2 of 6)

DECEMBER 1990 SOIL AND SEDIMENT DATA SUMMARY

Brzezinski Landfill NYSDEC I.D. No. 932006

PARAMETER	MWBZ-4 (10-12 ft)	MWBZ-5 (2-4 ft)	TBBZ-1 (6-8 ft)	TBBZ-2 (5-7 ft)	TBBZ-3 (5-7 ft)	TBBZ-4 (12-14 ft)	EP TOX STANDARDS
EPTOX METALS (mg/l)							
Arsenic, total	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5.0
Barium, total	<10	<10	<10	<10	<10	<10	100
Cadmium, total	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	1.0
Chromium, total	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5.0
Lead, total	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5.0
Mercury, total	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.2
Selenium, total	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	1.0
Silver, total	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5.0
REACTIVITY (mg/kg)							
Reactive cyanide	<35	<35	<35	<35	<35	<35	250
Reactive sulfide	<48	<48	<48	<48	<48	<48	500

< - Compound not detected at method detection limit.

TABLE 4-2 (Page 3 of 6)

DECEMBER 1990 SOIL AND SEDIMENT DATA SUMMARY

Brzezinski Landfill NYSDEC I.D. No. 932006

PARAMETER	MWBZ-4 (10-12 ft)	MWBZ-5 (2-4 ft)	TBBZ-1 (6-8 ft)	TBBZ-2 (5-7 ft)	TBBZ-3 (5-7 ft)	TBBZ-4 (12-14 ft)	BACKGROUND SSBZ-10	BACKGROUND MS SSBZ-10	BACKGROUND MSD SSBZ-10	SDBZ-1B	SDBZ-2B
VOLATILE ORGANICS (µg/kg)											
Methylene chloride	2.0 b j	2.0 b j	3.0 b j	2.0 b j	3.0 b j	10 b	3.0 b j	3.0 b j	3.0 b j	2.0 b j	2.0 b j
Acetone	8.0 b j	17 b j	31 b	71 b	37 b	19 b	ND	ND	ND	ND	ND
Carbon disulfide	ND	ND	6.0 j	ND	10	ND	ND	ND	ND	ND	ND
Benzene	ND	ND	3.0 j	ND	3.0 j	2.0 j	ND	ND	ND	ND	ND
Toluene	ND	ND	6.0 j	2.0 j	6.0 j	2.0 j	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylene (total)	ND	ND	6.0 j	ND	ND	17	ND	ND	ND	ND	ND
Chloroethane	ND	ND	ND	5.0 j	ND	53	ND	ND	ND	ND	ND
2-butanone	ND	ND	ND	15 j	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	3.0 j	ND	ND	ND	ND	ND	ND	ND
TENTATIVELY IDENTIFIED COMPOUNDS (µg/kg)											
2-methylpropane	11 b j	ND	ND	ND	ND	ND	ND	NR	NR	9 b j	ND
Unknown terpene	ND	ND	24 j	ND	2448 (2) j	ND	ND	NR	NR	ND	ND
Unknown ethylmethylbenzene	ND	ND	9.0 j	ND	ND	ND	ND	NR	NR	ND	ND
Unknown hydrocarbon	ND	ND	ND	ND	9.0 j	ND	ND	NR	NR	ND	ND

< - Compound not detected at method detection limit.
( ) - Number of unknown compounds in total.
b - Found in associated blanks.
j - Estimated concentration; compound present below quantitation limit.
MS - Matrix spike.
ND - Not detected at analytical detection limit; see Appendix F for detection limit.
NR - Not run.
MSD - Matrix spike duplicate.

TABLE 4-2 (Page 4 of 6)

DECEMBER 1990 SOIL AND SEDIMENT DATA SUMMARY

Brzezinski Landfill NYSDEC I.D. No. 932006

PARAMETER	MWBZ-4 (10-12 ft)	MWBZ-5 (2-4 ft)	TBBZ-1 (6-8 ft)	TBBZ-2 (5-7 ft)	TBBZ-3 (5-7 ft)	TBBZ-4 (12-14 ft)	BACKGROUND SSBZ-10	BACKGROUND MS SSBZ-10	BACKGROUND MSD SSBZ-10	SDBZ-1B	SDBZ-2B
SEMIVOLATILE ORGANICS (µg/kg)											
Phenanthrene	250 j	430 j	ND	270 j	680 j	550 j	ND	ND	ND	790	1500
Fluoranthene	240 j	560 j	ND	320 j	820	690 j	ND	ND	ND	1200	2400
Acenaphthene	ND	ND	ND	ND	100 j	ND	ND	ND	ND	ND	120 j
Fluorene	ND	ND	ND	ND	99 j	ND	ND	ND	ND	ND	130 j
Anthracene	ND	ND	ND	ND	140 j	ND	ND	ND	ND	ND	280 j
Pyrene	250 j	580 j	ND	290 j	750 j	590 j	ND	ND	ND	1000	1900
Indeno (1,2,3-cd)pyrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	310 j	290 j
Chrysene	ND	850 j	ND	170 j	1000	350 j	ND	ND	ND	670 j	750 j
Benzo(a)pyrene	ND	1100 j	ND	ND	340 j	ND	ND	ND	ND	490 j	520 j
Benzo(g,h,i)perylene	ND	3300 j	ND	ND	ND	ND	ND	ND	ND	340 j	320 j
Phenol	1000	ND	2000 j	1500	920	850 j	ND	ND	ND	99 j	1900
4-methylphenol	650 j	ND	ND	ND	240 j	ND	ND	ND	ND	ND	92 j
2-methylphenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	85 j
2,4-dimethylphenol	570 j	ND	ND	ND	ND	ND	ND	ND	ND	ND	83 j
Napthalene	94 j	ND	ND	ND	150 j	ND	ND	ND	ND	ND	ND
2-methylnaphthalene	150 j	ND	ND	ND	200 j	ND	ND	ND	ND	ND	ND
Bis(2-ethylhexyl)phthalate	1200	ND	4200	1900	5400	ND	ND	ND	ND	ND	ND
Di-n-butylphthalate	ND	ND	ND	ND	370 j	ND	200 j	180 j	190 j	ND	290 j
N-nitrosodiphenylamine (¶)	ND	ND	4000	190 j	ND	ND	ND	ND	ND	ND	ND
1,2-dichlorobenzene	ND	ND	ND	ND	410 j	ND	ND	ND	ND	ND	ND
1,2,4-trichlorobenzene	ND	ND	ND	ND	200 j	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	ND	ND	ND	ND	400 j	ND	ND	ND	ND	540 j	510 j
Benzo(k)fluoranthene	ND	ND	ND	ND	300 j	ND	ND	ND	ND	540 j	510 j
Benzo(a)anthracene	ND	ND	ND	ND	380 j	350 j	ND	ND	ND	320 j	640 j
Butyl benzyl phthalate	ND	ND	ND	ND	ND	1700 j	ND	ND	ND	ND	ND

(¶) - Cannot be seperated from diphenylamine.
j - Estimated concentration; compound present below quantitation limit.
MS - Matrix spike.
ND - Not detected at analytical detection limit; see Appendix F for detection limit.
MSD - Matrix spike duplicate.

DECEMBER 1990 SOIL AND SEDIMENT DATA SUMMARY

Brzezinski Landfill NYSDEC I.D. No. 932006

PARAMETER	MWBZ-4 (10-12 ft)	MWBZ-5 (2-4 ft)	TBBZ-1 (6-8 ft)	TBBZ-2 (5-7 ft)	TBBZ-3 (5-7 ft)	TBBZ-4 (12-14 ft)	BACKGROUND SSBZ-10	BACKGROUND MS SSBZ-10	BACKGROUND MSD SSBZ-10	SDBZ-1B	SDBZ-2B
SEMIVOLATILE ORGANICS (µg/kg)											
TENTATIVELY IDENTIFIED COMPOUNDS											
Unknown phthalate	ND	7700 j	ND	ND	ND	ND	ND	NR	NR	ND	ND
Unknown	ND	70200 (6) j	256200 (5) j	42000 (3) j	11500 (3) j	58700 (6) j	2410 (4) j b	NR	NR	2590 (4) j b	2590 (4) j b
Unknown c4-alkylphenanthrene	ND	6700 j	ND	ND	ND	5200 j	ND	NR	NR	ND	ND
Tricosane	3100 j	4500 j	ND	1700 j	3400 j	2400 j	ND	NR	NR	ND	ND
Tetracosane	3000 j	5900 j	6200 j	1700 j	3600 j	3000 j	ND	NR	NR	ND	ND
Phosphoric acid, triphenyl e	ND	7400 j	ND	ND	ND	ND	ND	NR	NR	ND	ND
Pentacosane	4000 j	8400 j	8800 j	2700 j	5000 j	7500 j	ND	NR	NR	ND	ND
Hexacosane	2900 j	8400 j	9700 j	2600 j	4500 j	6200 j	ND	NR	NR	ND	ND
Heptacosane	3200 j	8700 j	11000 j	2900 j	4800 j	6400 j	ND	NR	NR	ND	ND
Octacosane	2500 j	8900 j	7500 j	1200 j	4200 j	5500 j	ND	NR	NR	ND	ND
Nonacosane	3500 j	15000 j	13000 j	4700 j	7300 j	7800 j	ND	NR	NR	ND	ND
Triacontane	2500 j	9300 j	13000 j	3300 j	3900 j	3200 j	ND	NR	NR	ND	ND
Benzo[e]pyrene	ND	4300 j	ND	ND	ND	ND	ND	NR	NR	740 j	840 j
Unknown c31-alkane	2200 j	6900 j	8700 j	2500 j	3900 j	3200 j	ND	NR	NR	ND	ND
Unknown pna-hydrocarbon deri	ND	3000 j	ND	ND	ND	ND	ND	NR	NR	ND	ND
Nonadecane	1100 j	ND	ND	ND	ND	ND	ND	NR	NR	ND	ND
Eicosane	1200 j	ND	ND	ND	ND	ND	ND	NR	NR	ND	ND
1,4-benzenediamine, n,n'-dip	ND	ND	70000 j	ND	ND	ND	ND	NR	NR	ND	ND
Benzene,1,1'-oxybis-	ND	ND	ND	1000 j	2500 j	ND	ND	NR	NR	ND	ND
Phenol, 2,6-bis(1,1-dimethyl	ND	ND	ND	6500 j	11000 j	13000 j	ND	NR	NR	ND	ND
Unknown benzene derivative	ND	ND	ND	1200 j	ND	ND	ND	NR	NR	ND	ND
Unknown terpene	ND	ND	ND	ND	7400 (2) j	ND	ND	NR	NR	ND	ND
Unknown c4-alkybenzene	ND	ND	ND	ND	8800 j	ND	ND	NR	NR	ND	ND
Unknown polycyclic hydrocarb	ND	ND	ND	ND	1500 j	ND	ND	NR	NR	ND	1450 (2) j
2-pentanone, 4-hydrowxy-4-met	ND	ND	ND	ND	ND	ND	4900 j b a	NR	NR	6600 j b a	6100 j b a
Cyclohexanone	ND	ND	ND	ND	ND	ND	ND	NR	NR	330 j	ND
Diketone	ND	ND	ND	ND	ND	ND	ND	NR	NR	400 j	ND
Unknown alkene	ND	ND	ND	ND	ND	ND	ND	NR	NR	390 j b	380 j b
Unknown c8-alkyphenol	ND	ND	ND	ND	ND	ND	ND	NR	NR	ND	750 j
Phenanthrene, 2-methyl-	ND	ND	ND	ND	ND	ND	ND	NR	NR	ND	380 j
C15-pna hydrocarbons	ND	ND	ND	ND	ND	ND	ND	NR	NR	ND	420 j
Unknown pna-diketone	ND	ND	ND	ND	ND	ND	ND	NR	NR	ND	530 j
11h-benzo[a]fluorene	ND	ND	ND	ND	ND	ND	ND	NR	NR	ND	590 j
Unknown c20h12-pna-hydrocarb	ND	ND	ND	ND	ND	ND	ND	NR	NR	ND	330 j
Unknown methylenebisphenol	4800 (2) j	ND	21000 (2) j	2070 (2) j	ND	4500 (2) j	ND	NR	NR	ND	1810 (2) j
Heneicosane	1300 j	ND	ND	ND	ND	ND	ND	NR	NR	ND	ND
Docosane	2500 j	ND	3800 j	1700 j	2200 j	ND	ND	NR	NR	ND	ND
Unknown alkane	4470 (4) j	ND	ND	ND	ND	ND	ND	NR	NR	ND	ND
Unknown c32-alkane	960 j	ND	5700 j	1500 j	2200 j	2500 j	ND	NR	NR	ND	ND
1-phenanthrenecarboxylic aci	ND	ND	3800 j	ND	ND	ND	ND	NR	NR	ND	ND

( ) - Number of unknown compounds in total.
a - Suspected aldol condensation product.
b - Found in associated blanks.
j - Estimated concentration; compound present below quantitation limit.
ND - Not detected at analytical detection limit; see Appendix F for detection limit.
NR - Not run.

TABLE 4-2 (Page 6 of 6)

DECEMBER 1990 SOIL AND SEDIMENT DATA SUMMARY

Brzezinski Landfill NYSDEC I.D. No. 932006

PARAMETER	MWBZ-4 (10-12 ft)	MWBZ-5 (2-4 ft)	TBBZ-1 (6-8 ft)	DL TBBZ-1 (7 ft)	TBBZ-2 (5-7 ft)	TBBZ-3 (5-7 ft)	TBBZ-4 (12-14 ft)	BACKGROUND SSBZ-10	MS SSBZ-10	MSD SSBZ-10	SDBZ-1B	SDBZ-2B
				[Dil. 20.0]								
PESTICIDES/PCBs (µg/kg)												
alpha-BHC	ND	ND	510 x c	280 y c d	ND	73 y	50 y	ND	ND	ND	ND	9.8 y
beta-BHC	ND	21	150	150 y d	23	58 y	36 y	ND	ND	ND	ND	ND
Heptachlor	ND	17 y	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
gamma-BHC (Lindane)	ND	ND	13 y	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1242	570 c	300	710 c	ND	190	930 y c	6400 c	ND	ND	ND	ND	ND
Aroclor 1254	1600 c	200 y	1700 c	2200 y c d	330 y	9500 c	10000 c	ND	ND	ND	ND	200 y

c - Pesticide/PCB result confirmed by GC/MS analysis.
d - Concentration recovered from diluted sample.
x - Derived from an instrument response outside the calibration range.
y - Compound present below adjusted contract-required detection limit.
DL - Diluted sample analysis.
MS - Matrix spike.
ND - Not detected at analytical detection limit; see Appendix F for detection limit.
MSD - Matrix spike duplicate.

16.4 ppm

4.2.2.2 *Semivolatile Organics*. Monitoring well soil samples MWBZ-4 and -5 contained nine and six TCL semivolatiles compounds, respectively. No phenolic or phthalate compounds were detected in MWBZ-5. Twenty TICs were also detected in each monitoring well sample.

Sample TBBZ-1, taken from the northeast corner of the site, contained trace levels of three TCL semivolatile compounds as well as 19 TICs. Seven TCL compounds and 19 TICs were detected in sample TBBZ-2, collected from the middle of the site in the fill area, just beyond the former shoreline. TBBZ-3, located along the former shoreline in the southeast corner of the site, contained the greatest variety of contaminants of all the boring samples: 19 TCL semivolatile compounds and 20 TICs. Seven TCL compounds and 20 TICs were detected at TBBZ-4, located in the middle of the fill area. The surface soil sample (SSBZ-10) collected off-site as a background reference contained one TCL compound and five TICs that were qualified as blank contaminants and aldol condensation products. These qualifiers indicate that laboratory contamination is likely responsible for the presence of the TICs. The TCL compound detected, di-n-butylphthalate, is commonly thought to be a result of the base/neutral and acid (BNA) extraction procedure. The matrix spike (SSBZ-10MS) and matrix spike duplicate (SSBZ-10MSD) show good agreement with the sample.

Most of the TCL compounds detected in the soil samples were polynuclear aromatics (PNAs), phenolic compounds, or phthalate compounds. Many of the PNA and phthalate compounds are indicative of coal tar contamination. Phenolic compounds are commonly used as disinfectants and preservatives. The total combined concentration for the semivolatile compounds detected in any one sample was <0.05%, indicating only low-level contamination.

4.2.2.3 *Pesticides/PCBs*. All the soil boring samples showed evidence of PCB Aroclor contamination, and several samples contained quantifiable levels of pesticides. Most of the PCB Aroclor concentrations were confirmed by gas chromatography and mass spectra analyses (GC/MS). The maximum combined concentration detected was found in TBBZ-4 at 16.4 mg/kg. According to EPA guidelines, a soil is designated as hazardous waste when there is a confirmed concentration of 50 mg/kg of PCBs. However, this PCB concentration at TBBZ-4 is greater than the EPA cleanup action level (10 mg/kg) for unrestricted areas. Pesticides found in the soil samples were alpha-BHC, beta-BHC, gamma-BHC, and

heptachlor. Most of the detected concentrations were below the adjusted contract-required detection limit, but several were confirmed by GC/MS. The concentration ranged from 50 to 510 µg/kg for alpha-BHC and 21 to 150 µg/kg for beta-BHC. Heptachlor was detected only once, in MWBZ-5 at 17 µg/kg. Gamma-BHC was also detected only once, in TBBZ-1 at 13 µg/kg. No pesticides or PCBs were detected in background surface soil sample SSBZ-10.

4.2.2.4 ***Metals and Cyanide.*** As New York State does not have quality standards for metal concentrations in soils, the reported metal concentrations were compared to typical concentrations for native soils (Ref. 1, Appendix A). The background surface soil collected off-site (SSBZ-10) also serves as a comparative reference in assessing the detected metals concentrations. The cadmium concentration detected in TBBZ-1 was approximately two to three times greater than the other soil samples and was in the upper range for typical soils. Chromium was detected approximately one magnitude greater in TBBZ-3 than in SSBZ-10, but did not exceed the typical range. Lead levels were also reported at a magnitude greater in TBBZ-2 and MWBZ-5 than in SSBZ-10, but also did not exceed the typical range. Local magnesium concentrations are apparently high in the area as most of the samples, including background sample SSBZ-10, exceed the typical range. No detectable mercury concentration was detected in background sample SSBZ-10, but levels ranging from 0.09 to 1.60 mg/kg (exceeding the typical range) were detected in most of the on-site samples. An elevated nickel concentration that was a magnitude greater than most of the other soil samples was detected in TBBZ-3, but it did not exceed the typical range. Silver was reported above the typical range in MWBZ-5. Two samples (TBBZ-1 and -3) contained zinc in concentrations above the typical range and a magnitude greater than background sample SSBZ-10. Cyanide was detected at a low level (3.1 mg/kg) in MWBZ-5. No cyanide was detected in the other on-site samples or in background sample SSBZ-10. The MS and MSD correlated very well, indicating the instrumentation and procedures used for the metals had very good precision.

4.2.2.5 ***Hazardous Characteristics.*** According to EPA, a soil may be classified as a hazardous waste if leachable EP toxicity metal concentrations exceed the established EP toxicity standards or if the reactive cyanide exceeds 250 mg/kg or the reactive sulfide exceeds 500

mg/kg. No leachable metals were detected for any of the on-site samples. No reactive sulfide or cyanide was detected at the method detection limit.

4.2.3 Groundwater Data

Using piezometer static water levels, the groundwater gradient was shown to drop approximately 4 ft between River Road and the Niagara River. A downgradient well, GWBZ-4, was developed in the southwest corner of the site where MWBZ-4 had been augered. The upgradient well, GWBZ-5, was developed diagonally across from GWBZ-4 in the northeast corner of the site where MWBZ-5 had been augered. The two existing monitoring wells, located within the fill area near the riverbank, were sampled along with the two new wells according to the procedures discussed in Section 3.6. All the samples were analyzed for TCL volatiles and semivolatiles, pesticides/PCBs, metals and cyanide, and specific conductivity, COD, TDS, TSS, and pH. LMS has determined that all the data are usable without qualification. Analytical results have been assessed using the New York State Groundwater Class GA standards.

The summarized results for the four groundwater samples, GWBZ-1 (a blind duplicate of GWBZ-3), -2, -3, -4, and -5, are presented in Table 4-3.

4.2.3.1 ***Volatile Organics.*** Methylene chloride, 2-hexanone, and acetone were detected in many of the groundwater samples. The reported detections were qualified as being present in the associated blanks. The presence of these compounds is likely due to laboratory contamination and not site activity.

Chloroethane was detected above the groundwater standard (5 µg/l) in GWBZ-2, -3, and -1 at concentrations of 30, 10, and 7 µg/l, respectively. Trace levels of 1,2-dichloroethene (1,2-DCE) were detected below the groundwater standard (5 µg/l) in GWBZ-3 and -1. GWBZ-2 contained several BTEX compounds, including toluene and ethylbenzene, that were present below the groundwater standard. Benzene was detected at 2 µg/l, above the established standard of "non-detectable" and the proposed standard of 0.7 µg/l. Xylene was also measured above the groundwater standard (5 µg/l) at 6 µg/l. Six TICs were also detected

TABLE 4-3 (Page 1 of 2)

DECEMBER 1990 GROUNDWATER DATA SUMMARY

Brzezinski Landfill NYSDEC I.D. No. 932006

PARAMETER	GWBZ-1 (Blind dup of GWBZ-3)	GWBZ-2	GWBZ-2 (Filter)	GWBZ-3	GWBZ-4	GWBZ-5	NYSDEC CLASS GA STANDARDS
METALS (ug/l)							
Aluminum	551 E	3940 E	ND E	404 E	1780 E	421 E	NS
Antimony	ND	ND	ND	ND	ND	ND	3.0 GV
Arsenic	ND	3.7	ND W	ND	ND	ND	25
Barium	ND	740	679	ND	206	ND	1000
Beryllium	ND	ND	ND	ND	ND	ND	3.0 GV
Cadmium	ND	ND	ND	ND	ND	ND	10
Calcium	80100	237000	239000	76600	216000	244000	NS
Chromium	ND	ND	ND	ND	ND	ND	50
Cobalt	ND	ND	ND	ND	ND	ND	NS
Copper	ND	ND	ND	ND	ND	ND	200
Iron	4450	31100	21300	4370	10000	17500	300 *
Lead	1.8 SA	5.9 SA	ND SA	2.6 SA	7.0 SA	ND SA	25
Magnesium	21200	67500	68500	20200	64800	89700	35000
Manganese	171	635	579	170	941	3540	300 *
Mercury	ND R	ND R	0.21 R	0.31 R	0.27 R	ND R	2.0
Nickel	ND	ND	ND	ND	ND	ND	NS
Potassium	6960	17000	16200	7000	25500	ND	NS
Selenium	ND W	ND W	ND W	ND W	ND W	ND W	10
Silver	ND N	ND N	ND N	ND N	ND N	ND N	50
Sodium	43200	103000	104000	41600	45000	252000	20000
Thallium	ND W	ND W	ND W	ND W	ND W	ND W	4.0 GV
Vanadium	ND	ND	ND	ND	ND	ND	NS
Zinc	ND R	35.7 R	20 R	ND R	68.4 R	ND R	300
Cyanide	ND	ND	NR	ND	ND	ND	100

* - Iron and manganese not to exceed 500 µg/l.
E - Value estimated due to interference.
N - Spiked sample recovery is not within control limits.
R - Duplicate analysis not within control limits.
W - Post-digestion spike out of control limits; sample absorbance is less than 50% of spike absorbance.
GV - Guidance value.
ND - Not detected at analytical detection limit; see Appendix F for detection limit.
NR - Not run.
NS - No standard.
SA - Value determined by the method of standard addition.

TABLE 4-3 (Page 2 of 2)

DECEMBER 1990 GROUNDWATER DATA SUMMARY

Brzezinski Landfill NYSDEC I.D. No. 932006

PARAMETER	GWBZ-1 (Blind dup of GWBZ-3)	GWBZ-2	GWBZ-3	GWBZ-4	GWBZ-5	NYS GW CLASS GA STANDARDS
VOLATILE ORGANICS (µg/l)						
Methylene Chloride	ND	2.0 b j	ND	2.0 b j	1.0 b j	5.0
Chloroethane	7.0 j	30	10 j	ND	ND	5.0
Acetone	ND	4.0 b j	1.0 b j	9.0 b j	4.0 b j	50
Benzene	ND	2.0 j	ND	ND	ND	ND +
Toluene	ND	1.0 j	ND	ND	ND	5.0
Ethylbenzene	ND	2.0 j	ND	ND	ND	5.0
Xylene (total)	ND	6.0	ND	ND	ND	5.0 *
1,2-dichloroethene (total)	2.0 j	ND	1.0 j	ND	ND	5.0
2-hexanone	ND	ND	ND	3.0 b j	ND	50
TENTATIVELY IDENTIFIED COMPOUNDS (µg/l)						
Propane	ND	10 j	ND	ND	ND	50
Unknown ethylmethylbenzene	ND	37 (3) j	10 j	ND	ND	50
Propylbenzene	ND	6.0 j	ND	ND	ND	50
2,3-dihydro-1h-indene	ND	12 j	ND	ND	ND	50
Ethyl ether	ND	ND	ND	14 j	ND	50
SEMIVOLATILES (µg/l)	ND	ND	ND	ND	ND	-
TENTATIVELY IDENTIFIED COMPOUNDS (µg/l)						
2-pentanone, 4-hydroxy-4-met	ND	ND	9.0 j b a	ND	ND	50
Unknown c4-alkylphenol	17 j	ND	19 j	76 j	ND	50
Unknown c3-alkylbenzene	ND	41 (3) j	ND	ND	ND	50
Unknown trimethylbenzene	ND	82 (2) j	ND	ND	ND	50
1h-indene, 2,3-dihydro-	ND	16 j	ND	ND	ND	50
Unknown	ND	11 j	ND	16 j	ND	50
Unknown tolysulfonic acid d	ND	82 (2) j	ND	26 (2) j	ND	50
Phenol, 2,2'-methylenebis[6	ND	ND	ND	15 j	ND	50
PECTICIDES/PCBs (µg/l)						
alpha-BHC	ND	ND	0.19 y	ND	ND	ND
beta-BHC	ND	ND	0.11 y	ND	ND	ND
CONVENTIONALS						
Conductivity (µmhos/cm)	753	1860	731	1630	2790	-
Total dissolved solids (mg/l)	437	1140	432	1020	1590	500 S
Total suspended solids (mg/l)	24	256	21	90	50	-
Chemical oxygen demand (mg/l)	20.7	53.3	19.2	43.8	47.7	-
pH (standard units)	7.06	6.96	7.08	6.98	6.78	6.5 - 8.5 S

( ) - Number of unknown compounds in total.
* - Xylene standard of 5µg/l applies to each isomer (o,p,m) individually
\+ - Not detectable, proposed standard of 0.7 µg/l.
a - Suspected aldol condensation product.
b - Found in associated blanks.
j - Estimated concentration; compound present below quantitation limit.
y - Compound present below adjusted contract-required detection limit.
S - Secondary drinking water standard.
ND - Not detected at analytical detection limit; see Appendix F for detection limit.

in GWBZ-2. The combined total volatile organics concentration in GWBZ-2 was greater than the NYSDEC established maximum allowable contaminant level of 100 µg/l for TCL compounds and TICs. The upgradient well showed no sign of detectable contaminants other than the suspected laboratory contaminants methylene chloride and acetone. Downgradient well GWBZ-4 contained no detectable TCL contaminants, but one TIC was measured at 14 µg/l.

4.2.3.2 ***Semivolatile Organics.*** None of the samples contained detectable concentrations of TCL semivolatile compounds. GWBZ-2, however, contained numerous unknown TICs totaling approximately 230 µg/l. The downgradient well, GWBZ-4, contained TICs similar to but in lower concentrations than those in GWBZ-2, totaling approximately 130 µg/l. Both of these total concentrations are above the NYSDEC maximum allowable organic contaminant level of 100 µg/l. Samples GWBZ-3 and -1, collected between GWBZ-2 and GWBZ-4, each contained one unknown TIC. A suspected aldol condensation product was identified as a TIC in GWBZ-3, but it is likely a compound produced during the extraction procedure and not representative of the sample. No TCL semivolatiles or TICs were detected in GWBZ-5. The presence of many TICs in the absence of TCL compounds suggests that the semivolatile compounds present may be undergoing degradation.

4.2.3.3 ***Pesticides/PCBs.*** No PCB Aroclors were detectable in any of the groundwater samples. Only two pesticide compounds, alpha-BHC and beta-BHC, were detected in the groundwater samples, both below the adjusted contract-required detection limit in GWBZ-3. The Class GA groundwater standard for these pesticides is "non-detectable." These compounds were not detectable in blind duplicate GWBZ-1. Confirmed detections of alpha-BHC, beta-BHC, and gamma-BHC (Lindane) were detected in a majority of the test borings. Trace levels of pesticides in the groundwater samples may be evidence that confirmed pesticides in the soil are leaching into the groundwater.

4.2.3.4 ***Metals, Cyanide, and Conventionals.*** Because of the high TSS in GWBZ-2, a filtered sample was collected for duplicate analysis. Iron was detected above the Class GA standard (300 µg/l) in all the groundwater samples, ranging between 4370 and 31,000 µg/l. Manganese concentrations exceeded the Class GA standard of 300 µg/l in GWBZ-2, -4, and -5, ranging

from 579 to 3540 µg/l. The combined NYSDEC Class GA standard for iron and manganese is 500 µg/l. The magnesium concentrations in GWBZ-2, -4, and -5 were measured at 67,500, 64,800, and 89,700 µg/l, respectively, all above the Class GA standard of 35,000 µg/l.

Sodium concentrations were detected between 41,000 and 252,000 µg/l, well above the Class GA standard of 20,000 µg/l. No cyanide was detected in any of the groundwater samples. The high concentrations of magnesium, manganese, and sodium detected in GWBZ-2, -4, and -5 are reflected in the high TDS values (1140, 1020, and 1590 mg/l, respectively) and specific conductivity values reported for these samples. The secondary EPA drinking water standard for TDS is 500 mg/l.

4.2.4 Surface Water and Sediment Data

Two surface water and sediment samples were collected from the Niagara River to determine whether contaminants have migrated off-site or have leached into the Niagara River from upgradient groundwater sources. Sampling locations are presented in Figure 3-7. The Niagara River is a Class A stream used as a source of drinking water (Ref. 2, Appendix A). A surface water intake is located 3.5 miles downstream from the site. Surface water and sediment sampling is described in Section 3.6.2. Surface waters, sediments, and a field blank sample were analyzed for TCL volatiles and semivolatiles, pesticides/PCBs, metals and cyanide, conductivity, TDS, TSS, COD, and pH. Volatile organic analysis was run on a trip blank. The New York State surface water Class A standards for human and aquatic organisms were used to assess the reported contaminant concentrations. New York State has no applicable quality criteria for sediments. Sediment data are summarized in Table 4-2, surface water data in Table 4-4.

4.2.4.1 ***Volatile Organics.*** Methylene chloride, acetone, and methylpropane (TIC) were detected in several water and sediment samples and in the field and trip blanks. All reported concentrations were qualified as being detected in the associated blanks. The presence of these constituents is probably due to laboratory contamination and not site activity.

TABLE 4-4 (Page 1 of 2)

DECEMBER 1990 SURFACE WATER DATA SUMMARY

Brzezinski Landfill NYSDEC I.D. No. 932006

PARAMETER	SWBZ-1B	DUPL. SWBZ-1B	SWBZ-2B	FIELD BLANK	NYS SW CLASS A STANDARDS (h) AQUATIC	HUMAN
METALS (ug/l)						
Aluminum	1040 E	1030 E	1100 E	ND E	100 (i)	NS
Antimony	ND	ND	ND	ND	NS	3 0 GV
Arsenic	ND W	ND W	ND W	ND	190 (d)	50
Barium	ND	ND	ND	ND	NS	1000
Beryllium	ND	ND	ND	ND	1100	3 0 GV
Cadmium	ND	ND	ND	ND	1.53	10
Calcium	42600	44200	40000	ND	NS	NS
Chromium	ND	ND	ND	ND	2.82	50
Cobalt	ND	ND	ND	ND	5.0	NS
Copper	ND	ND	ND	ND	16.3	200
Iron	1150	1110	1180	ND	300	300
Lead	2.4 SA	2.5 SA	2.4 SA	ND SA	5.2	50
Magnesium	10000	10100	9190	ND	NS	35000
Manganese	28.3	28	27.6	ND	NS	300
Mercury	ND R	0.44 R	ND R	ND R	0.2 GV	2.0
Nickel	ND	ND	ND	ND	127	NS
Potassium	ND	ND	ND	ND	NS	NS
Selenium	ND	ND W	ND	ND	1.0	10
Silver	ND N	ND N	ND N	ND	0.1 (i)	50
Sodium	18200	18200	15100	ND	NS	NS
Thallium	ND W	ND W	ND W	ND	8.0	4 0 GV
Vanadium	ND	ND	ND	ND	14	NS
Zinc	26.7 R	ND R	ND R	ND R	30	300
Cyanide	ND	ND	ND	ND	5.2 (f)	100

(d) - Dissolved.
(f) - As free cyanide, sum of HCN and CN^-.
(h) - Hardness: 146 mg equivalent as $CaCO_3$ /l.
(i) - Ionic.
E - Value estimated due to interference.
N - Spiked sample recovery is not within control limits.
R - Duplicate analysis not within control limits.
W - Post-digestion spike out of control limits; sample absorbance is less than 50% of spike absorbance.
ND - Not detected at analytical detection limit; see Appendix F for detection limit.
SA - Value determined by the method of standard addition.

TABLE 4-4 (Page 2 of 2)

DECEMBER 1990 SURFACE WATER DATA SUMMARY

Brzezinski Landfill NYSDEC I.D. No. 932006

PARAMETER	SWBZ-1B	MS SWBZ-1B	MSD SWBZ-1B	SWBZ-2B	FIELD BLANK	TRIP BLANK	NYS SW CLASS A STANDARDS AQUATIC	NYS SW CLASS A STANDARDS HUMAN
VOLATILE ORGANICS (µg/l)								
Methylene Chloride	1.0 b j	1.0 b j	1.0 b j	ND	2.0 b j	5.0 b j	NS	5.0 GV
Chloroethane	ND	ND	ND	ND	ND	ND	NS	NS
Acetone	3.0 b j	3.0 b j	5.0 b j	ND	ND	2.0 b j	NS	NS
Benzene	ND	ND	ND	ND	ND	ND	6.0 GV	0.7 GV
Toluene	ND	ND	ND	ND	ND	ND	NS	5.0 GV
Ethylbenzene	ND	ND	ND	ND	ND	ND	NS	5.0 GV
Xylene (total)	ND	ND	ND	ND	ND	ND	NS	5.0 * GV
1,2-dichloroethene (total)	ND	ND	ND	ND	ND	ND	NS	5.0 GV
2-hexanone	ND	ND	ND	ND	ND	ND	NS	NS
TENTATIVELY IDENTIFIED COMPOUNDS (µg/l)								
Propane	ND	NR	NR	ND	ND	ND	NS	NS
Unknown ethylmethylbenzene	ND	NR	NR	ND	ND	ND	NS	NS
Propylbenzene	ND	NR	NR	ND	ND	ND	NS	NS
2,3-dihydro-1h-indene	ND	NR	NR	ND	ND	ND	NS	NS
Ethyl ether	ND	NR	NR	ND	ND	ND	NS	NS
SEMIVOLATILES (µg/l)	ND	ND	ND	ND	ND	NR	-	-
TENTATIVELY IDENTIFIED COMPOUNDS (µg/l)								
2-pentanone, 4-hydroxy-4-met	12 j b a	NR	NR	12 j b a	18 j b a	NR	NS	NS
Unknown c4-alkylphenol	ND	NR	NR	ND	ND	NR	NS	NS
Unknown c3-alkylbenzene	ND	NR	NR	ND	ND	NR	NS	NS
Unknown trimethylbenzene	ND	NR	NR	ND	ND	NR	NS	NS
1h-indene, 2,3-dihydro-	ND	NR	NR	ND	ND	NR	NS	NS
Unknown	ND	NR	NR	ND	ND	NR	NS	NS
Unknown tolysulfonic acid d	ND	NR	NR	ND	ND	NR	NS	NS
Phenol, 2,2'-methylenebis[6	ND	NR	NR	ND	ND	NR	NS	NS
PECTICIDES/PCBs (µg/l)								
alpha-BHC	ND	ND	ND	ND	ND	NR	0.01	0.02 GV
beta-BHC	ND	ND	ND	ND	ND	NR	0.01	0.02 GV
CONVENTIONALS								
Conductivity (µmhos/cm)	412	NR	NR	364	NR	NR	-	-
Total dissolved solids (mg/l)	214	NR	NR	188	NR	NR	500	500
Total suspended solids (mg/l)	19	NR	NR	21	NR	NR	NARR	NARR
Chemical oxygen demand (mg/l)	10.5	NR	NR	10.9	NR	NR	-	-
pH (standard units)	7.92	NR	NR	8.0	NR	NR	6.5 - 8.5	6.5 - 8.5

* - Xylene standard of 5 µg/l applies to each isomer (o,p,m) individually.
a - Suspected aldol condensation product.
b - Found in associated blanks.
j - Estimated concentration; compound present below quantitation limit.
GV - Guidance value.
MS - Matrix spike.
ND - Not detected at analytical detection limit; see Appendix F for detection li
NR - Not run.
MSD - Matrix spike duplicate.
NARR - Narrative standard.

No other TCL volatile compounds or TICs were detected in either the surface water or sediment samples.

4.2.4.2 ***Semivolatile Organics.*** A pentanone TIC was detected in the surface water and sediment samples and in the field blank. This compound was qualified as being detected in the associated blanks and as an aldol condensation product. Its presence is likely attributable to the extraction procedure and not site activity.

No TCL semivolatile compounds or TICs were detected in either of the surface water samples or in the field blank.

Eleven TCL semivolatile compounds and nine TICs were detected in SDBZ-1B. Sediment sample SDBZ-2B contained 18 TCL compounds and 17 TICs. The majority of the TCL compounds were polynuclear aromatics (PNAs), although phthalate and phenolic compounds were also present. The total concentration of the TCL compounds and TICs was <0.01% of the sediment sample analyzed. The relatively low total semivolatile concentration has apparently not affected the overlying surface water as no contaminants were detected in the water fraction. Organic compounds generally have a high affinity for organics contained in sediment. The lack of detectable semivolatile compounds in the water fraction does not necessarily mean there is no partitioning of semivolatile compounds between the sediment and water column; the flow and volume of the Niagara River may effectively dilute the contaminants to nondetectable levels.

4.2.4.3 ***Pesticides/PCBs.*** No pesticides or PCB Aroclors were detected in the surface water samples or in the field blank. Downgradient sediment sample SDBZ-2B contained trace levels of alpha-BHC and 200 µg/kg of Aroclor 1254; both concentrations were below the adjusted contract-required detection limit.

4.2.4.4 ***Metals, Cyanide, and Conventionals.*** Aluminum concentrations in SWBZ-1B and -2B were reported at 1040 and 1100 µg/l, respectively, a magnitude greater than the Class A standard. Iron concentrations were approximately three times the Class A standard of 300 µg/l. Mercury was detected above the guidance value of 0.2 µg/l in SWBZ-1B duplicate. The

reported duplicate value was qualified as not being within control limits. The mercury level in SDBZ-1B (0.07 mg/kg) approached the upper limit (0.08 mg/kg) of the typical range for soil concentrations, however. Magnesium was detected at approximately twice the typical range in both sediment samples.

No cyanide was detected in any of the water or sediment samples.

The conventional analyses for the surface waters showed no unusual trends. None of the reported analyses violated the New York State Class A standards for surface waters.

4.3 CONCLUSIONS

The initial and supplemental Phase II data indicate that there are low levels of many contaminants present on the Brzezinski Property site. Some chemicals are found in higher concentrations in certain areas, probably a result of the type of waste dumped in that area. The central and western areas of the site appear to contain more contaminants than the eastern area. Fewer samples were taken from the eastern areas because the soil gas data indicated less contamination in this area.

The findings of the different sampling techniques confirm the types of chemicals found in each area. The volatiles found with the soil gas study, TCA, tetrachloroethylene, TCE, and BTEX, were generally poorly corroborated by the soil boring samples and to an even lesser degree by the groundwater samples. Semivolatiles found in the soils are indicative of coal tars, petroleum wastes that tend to remain bound to the soils; some of the pesticides/PCBs found in the soil also have been detected in the groundwater. The contaminants found in the center of the site appear to be migrating downstream, as they show up in two of the three downgradient wells. The cleanest well is GWBZ-4, which is downgradient of the less contaminated eastern portion of the site.

The new piezometers and monitoring wells indicate that the overburden groundwater grades to the river. However, the flow rate and/or rate of contaminant migration is still not fully understood because of the complexities of the site hydrology. In the northern portion of the

site (along River Road), the gradient is relatively steep (1.5 ft per 100 ft); however, the flow is low as the water is found only in small sandy lenses in the mostly natural clays and silts. In the area of the former cove, the gradient decreases (0.25 ft per 100 ft), yet the water is found in the more permeable fill and is more abundant. It is obvious that this area is influenced by the river and has some bank storage of water. Therefore, the rate of contaminant migration downgradient is not clear; it may be very low as the flow is low and/or the riverbank storage may be diluting the contamination.

Other than some semivolatiles related to coal tars, which may have come from the river itself, the river surface water and sediment are not measurably affected by the site. As the downgradient wells show low levels of contaminants and the flow is to the river, some contaminants are migrating into the river. However, the river flow is so large that the contamination is below measurable detection limits.

Very high concentrations of a suite of volatiles, mostly TCE, were found at one boring (GW-4B) location during the initial Phase II investigation. However, during the supplemental investigation, the soil gas study was unable to pinpoint other hot spots of the chemical other than general areas of low contamination. The additional borings also did not detect any other hot spots and were not designed to determine the extent of the contamination at GW-4B. This may mean that there are no other hot spots of almost pure product on the site or that the sampling to date has not detected it. Because of the layers of clay, silt, and sandy lenses, it is possible that the soil gas technique may not detect a hot spot; unless a boring happens to hit one (as in GW-4B), it may go undetected.

None of the soil samples indicated any contaminants at concentrations that might indicate disposal of hazardous wastes.

In summary, the site received contaminated wastes that appear to be at the industrial waste level and are not considered hazardous waste. The contamination covers a wide range of chemicals at relatively low concentrations, with the exception of the one hot spot of TCE. Again, with this one exception, no other product-level hot spots were found, although the sampling may have missed them. The groundwater data indicate that levels of migrating

contamination are low, either because of low soil contaminant concentrations or restricted flow or because the plume is diluted by river inflow. There is no evidence of a definitive contaminant plume either in the groundwater or the river waters.

4.4 RECOMMENDATIONS

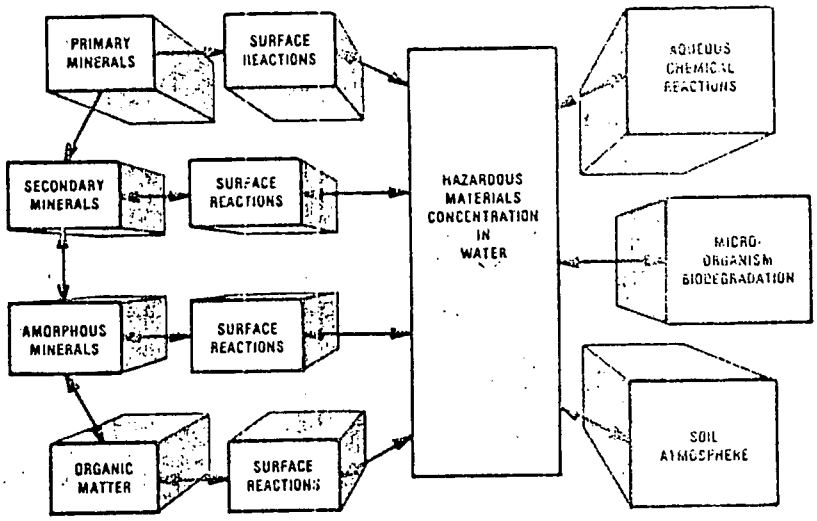
Because there was no confirmation of hazardous waste disposal at the Brzezinski site, it is recommended that the site be delisted and referred to NYSDEC's Division of Solid Waste as an inactive industrial landfill. Final closure, including adequate grading and capping, and continued monitoring of groundwater quality is recommended under Part 360 regulations. It is also recommended that the small area of product-level TCE contamination (GW-4B) be remediated; one feasible remediation of the contaminated soil is excavation and removal by backhoe and disposal at an approved facility.

APPENDIX A

REFERENCE DOCUMENTATION

REFERENCE 1

THE SOIL CHEMISTRY OF HAZARDOUS MATERIALS



James Dragun

Hazardous Materials Control Research Institute

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THE SOIL CHEMISTRY OF HAZARDOUS MATERIALS

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Preface

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6: Adsorp

7: Organic

8: Organic

9: Organic

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TABLE 3.1 Native Soil Concentrations of Various Elements

Element	*Concentration (ppm)*	
	Typical Range	*Extreme Limits*
Ag	0.1 - 5.0	0.1 - 50
Al	10,000 - 300,000	—
As	1.0 - 40	0.1 - 500
B	2.0 - 130	0.1 - 3000
Ba	100 - 3500	10 - 10,000
Be	0.1 - 40	0.1 - 100
Br	1.0 - 10	—
Ca	100 - 400,000	—
Cd	0.01 - 7.0	0.01 - 45
Ce	30 - 50	—
Cl	10 - 100	—
Co	1.0 - 40	0.01 - 500
Cr	5.0 - 3000	0.5 - 10,000
Cs	0.3 - 25	—
Cu	2.0 - 100	0.1 - 14,000
F	30 - 300	—
Fe	7,000 - 550,000	—
Ga	0.4 - 300	—
Ge	1.0 - 50	—
Hg	0.01 - 0.08	—
I	0.1 - 40	—
K	400 - 30,000	—
La	1.0 - 5000	—
Li	7.0 - 200	1.0 - 3000
Mg	600 - 6000	—
Mn	100 - 4000	1.0 - 70,000
Mo	0.2 - 5.0	0.1 - 400
Na	750 - 7500	400 - 30,000
Ni	5.0 - 1000	0.8 - 6200
P	50 - 5000	—
Pb	2.0 - 200	0.1 - 3000
Ra	$10^{-6.5}$ - $10^{-5.7}$	—
Rb	20 - 600	3.0 - 3000
S	30 - 10,000	—
Sb	0.6 - 10	—
Sc	10 - 25	—
Se	0.1 - 2.0	0.01 - 400
Si	230,000 - 350,000	—
Sn	2.0 - 200	0.1 - 700
Sr	50 - 1000	10 - 5000
Th	0.1 - 12	—
Ti	1000 - 10,000	400 - >10,000
U	0.9 - 9.0	< 250
V	20 - 500	1.0 - 1000
Y	10 - 500	—
Zn	10 - 300	3.0 - 10,000
Zr	60 - 2000	10 - 8000

[a] Based on an Analysis of Data Presented in References 1,2,3,4,5, and 6.

REFERENCE 2

(b) *Methods for Chemical Analysis of Water and Wastes* (see section 705.2 of this Title);

(c) *Water Standards of the American Society for Testing and Materials* (see section 705.2 of this Title); or

(d) by other methods approved by the commissioner as giving results equal to or superior to methods listed above.

Historical Note

Sec. filed March 20, 1967; repealed, new filed: April 28, 1972; Aug. 2, 1978; amd. filed Nov. 5 1984 eff. Nov. 5, 1984.

703.5 Classes and quality standards for ground waters. (a) *Class GA.*

(1) The best usage of class GA waters is as a source of potable water supply. Class GA waters are fresh ground waters found in the saturated zone of unconsolidated deposits and consolidated rock or bed rock.

(2) Quality standards for class GA waters shall be the most stringent of:

(i) the items and specifications applicable to such waters found in this section;

(ii) the maximum contaminant levels for drinking water promulgated by the Commissioner of Health as found in 10 NYCRR Subpart 5-1, Public Water Supplies or any subsequent revision thereto or replacement thereof;

(iii) the maximum contaminant levels for drinking water promulgated by the administrator under the Safe Drinking Water Act (see section 705.1 of this Title) and 40 CFR Part 141, effective July 1, 1978 (see section 705.1); and

(iv) the standards for raw water quality promulgated by the Commissioner of Health as found in 10 NYCRR Part 170, Sources of Water Supply or any subsequent revision thereto or replacement thereof.

(3) The following quality standards shall be applicable to class GA waters:

Items	*Specifications*
(a) Sewage, industrial waste or other wastes, taste or odor producing substances, toxic pollutants, thermal discharges, radioactive substances or other deleterious matter.	None which may impair the quality of the ground waters to render them unsafe or unsuitable for a potable water supply or which may cause or contribute to a condition in contravention of standards for other classified waters of the State.
(b) The concentration of the following substances or chemicals:	Shall not be greater than the limit specified, except where exceeded due to natural conditions:
(1) Arsenic (As)	0.025 mg/l
(2) Barium (Ba)	1.0 mg/l
(3) Cadmium (Cd)	0.01 mg/l
(4) Chloride (Cl)	250 mg/l
(5) Chromium (Cr) Hexavalent	0.05 mg/l
(6) Copper (Cu)	1.0 mg/l
(7) Cyanide (Cn)	0.2mg/l
(8) Fluoride (F)	1.5 mg/l
(9) Foaming Agents[1]	0.5 mg/l
(10) Iron (Fe)[2]	0.3 mg/l

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Items	*Specifications*
(11) Lead (Pb)	0.025 mg/l
(12) Manganese (Mn)[2]	0.3 mg/l
(13) Mercury (Hg)	0.002 mg/l
(14) Nitrate (as N)	10.0 mg/l
(15) Phenols	0.001 mg/l
(16) Selenium (Se)	0.02 mg/l
(17) Silver (Ag)	0.05 mg/l
(18) Sulfate (SO_4)	250 mg/l
(19) Zinc (Zn)	5 mg/l
(20) pH Range	6.5-8.5
(21) Aldrin, or 1, 2, 3, 4, 10, 10-hexachloro-1, 4, 4a, 5, 8, 8a-hexahydro-*endo*-1, 4-exc-5, 8-dimethanonaphthalene.	not detectable[3]
(22) Chlordane, or 1, 2, 4, 5, 6, 7, 8, 8-octachloro-2, 3, 3a, 4, 7, 7a-hexahydro-4, 7-methanoindene.	0.1 ug/l
(23) DDT, or 2, 2-bis- (p-chlorophenyl)-1, 1, 1-trichlorcethane and metabolites.	not detectable[3]
(24) Dieldrin, or 6, 7-epoxy aldrin.	not detectable[3]
(25) Endrin, or 1, 2, 3, 4, 10, 10-hexachloro-6, 7-epoxy-1, 4, 4a, 5, 6, 7, 8, 8a-octahydro-endo-1, 4-*endo*-5, 8-dimethanonaphthalene.	not detectable[3]
(26) Heptachlor, or 1, 4, 5, 6, 7, 8, 8-heptachloro-3a, 4, 7, 7a-tetrahydro-4, 7-methanoindene and metabolites.	not detectable[3]
(27) Lindane and other Hexachlorocyclohexanes or mixed isomers of 1, 2, 3, 4, 5, 6-hexachlorocyclohexane.	not detectable[3]
(28) Methoxychlor, or 2, 2-bis-(p-methoxyphenyl)-1, 1, 1-trichloroethane.	35.0 ug/l
(29) Toxaphene (a mixture of at least 175 chlorinated camphene derivatives).	not detectable[3]
(30) 2, 4-Dichlorophenoxyacetic acid (2, 4-D)	4.4 ug/l
(31) 2, 4, 5-Trichlorophenoxypropionic acid (2, 4, 5-TP) (Silvex)	0.26 ug/l
(32) Vinyl chloride (chloroethene)	5.0 ug/l
(33) Benzene	not detectable[3]
(34) Benzo (a) pyrene	not detectable[3]
(35) Kepone or decachlorooctahydro-1, 3, 4-metheno-2H-cyclobuta (cd) pentalen-2-one (chlordeone).	not detectable[3]

cc: DWG - we must discuss revisions to growing list of quality analyses

STATE OF NEW YORK
DEPARTMENT OF HEALTH

Corning Tower The Governor Nelson A. Rockefeller Empire State Plaza Albany, New York 12237

David Axelrod, M D
Commissioner

OFFICE OF PUBLIC HEALTH
Linda A Randolph, M D., M P H.
Director

William F. Leavy
Executive Deputy Director

November 18, 1988

RE: Organic Chemical Standards

Dear Consultant:

The Department of Health recently adopted a code revision limiting organic chemical contamination of drinking water and requiring monitoring for certain organic chemicals. The new maximum contaminant levels, the first to added to the code in almost ten years, become effective on January 9, 1989.

The code revision may affect public water systems for which your firm provides services. We estimate that four percent of all public water systems will have sources that will exceed the maximum contaminant levels. Please keep these new standards in mind when planning or designing a water supply project.

A summary of the code revision is enclosed for your reference. The actual text of the revision will be forwarded to you as soon as the most recent version of the code is printed. Code revisions dealing with water quality treatment districts, emergency planning, bottled water and other topics will be published concurrently with the organic chemical standards.

If you have any question, please contact Ron Entringer of my staff at (518) 458-6731.

Sincerely,

Michael E. Burke, P.E.
Director
Bureau of Public Water Supply Protection

Enclosure

cc: Section Chiefs
Mr. Entringer

SUMMARY OF CODE REVISION

STANDARDS

General MCLs

The New York State Department of Health has adopted standards to limit organic chemical contamination of public drinking water supplies. The code revision (to Part 5 of the State Sanitary Code) establishes maximum contaminant levels (MCLs) or standards for:

Principal Organic Contaminant (POC) - 0.005 mg/l (5 ug/l)
Unspecified Organic Contaminant (UOC) - 0.050 mg/l (50 ug/l)
Total of POCs and UOCs - 0.10 mg/l (100 ug/l)

POCs would be defined as any organic chemical belonging to any of six general chemicals classes:

Halogenated Alkanes
Halogenated Ethers
Halobenzenes and Substituted Halobenzenes
Benzene and Alkyl- or Nitrogen-Substituted Benzenes
Substituted, Unsaturated Aliphatic Hydrocarbons
Halogenated Non-aromatic Cyclic Hydrocarbons

POCs, by definition, exclude trihalomethanes and other organic chemicals with a specific MCL of their own.

UOCs would be defined as any organic chemical not covered by another MCL.

The Department recognizes the possible need for exceptions from the proposed MCLs for POCs and UOCs if the presence of a specific organic chemical does not represent contamination and sufficient, valid scientific information demonstrates that they do not pose an unreasonable risk to human health. When justified, the regulation contains provisions to allow for the establishment of a more lenient (higher) MCL.

The regulation also allows a water supplier to submit justification for a higher MCL for up to 60 days following application of a paint or lining to a potable water appurtenance. The Commissioner may allow the higher MCL if he determines that no unreasonable risk to human health would result.

The Department recognizes the need to use a stricter (lower) interim guideline value for a contaminant which lacks a chemical-specific MCL but for which the available toxicological data are judged sufficient to warrant more stringent control. The regulation allows for consideration of lower interim guidelines when justified. The Department believes that, from a public health perspective, the benefits associated with the broad nature of the general MCLs outweigh the fact that interim guidelines may have to be used in some cases. For example, the existing guidelines for PCBs - 1 ug/l; aldicarb - 7 ug/l; carbofuran - 15 ug/l; atrazine - 25 ug/l will be retained until a specific MCL for each chemical is developed.

PART 837

LAKE ERIE (EAST END)—NIAGARA RIVER DRAINAGE BASIN

(Statutory authority: Public Health Law, art. 12)

Sec.		Sec.	
837.1	Adopting order	837.4	Table I
837.2	Definitions and conditions	837.5	Map A
837.3	Assigned classifications and standards of quality and purity	837.6	Map B
		837.7	Quadrangle maps

Section 837.1 Adopting order. Pursuant to the authority contained in article 12 of the Public Heatlh Law, the Water Pollution Control Board having made proper studies and having held public hearings on due notice with reference thereto, hereby adopts and assigns the following classifications and standards of quality and purity to the various waters as specifically designated and described below and subject to the definitions and conditions as stated.

837.2 Definitions and conditions. The several terms, words or phrases hereinafter mentioned shall be construed as follows:

(a) *Class* as appearing in table I, as the letters A, A-special (International boundary waters), B, C, D or E opposite each specifically designated waters means Class A, A-special (International boundary waters), B, C, D or E, as the case may be, as set forth in Part 701 and 702, *supra*.

(b) *Standards* as appearing in table I, as the letters A, A-special (International boundary waters), B, C, D or E opposite each specifically designated waters shall mean the standards of quality and purity established for class A, A-special (International boundary waters), B, C, D or E, as the case may be, as set forth in Part 701 and 702, *supra*. The symbol (T) after any class designation shall mean that the designated waters are trout waters and that the dissolved oxygen specification for trout waters shall apply thereto.

(c) *Waters index number* as appearing in table I shall mean that number which has been applied to any specifically designated waters as appearing on the maps set forth in section 837.7, *infra*.

(d) *Name* as appearing in table I shall mean the name, if any, by which the specifically designated waters are generally known and which name, if any, appears on the reference maps. In cases of specifically designated waters which have no name, the named tributary to which the unnamed waters are tributary is indicated so far as possible. In the table, an item number is assigned consecutively to each specifically designated waters.

(e) *Description* as appearing in table I shall mean a brief indication as to the location of the specifically designated waters so that by reference to reference maps such waters may be located without reference to their waters index numbers. Entries under column headed "Description" also include designations of sections of a stream to which a particular assignment of a class and standards shall apply.

(f) *Map ref. no.* The numbers appearing in the table under the heading designate the following maps which have been partially reproduced as maps 1 to 13, inclusive, with superimposed tracing in black of streams and other waters and waters index numbers in section 837.7, *infra*.

A-15

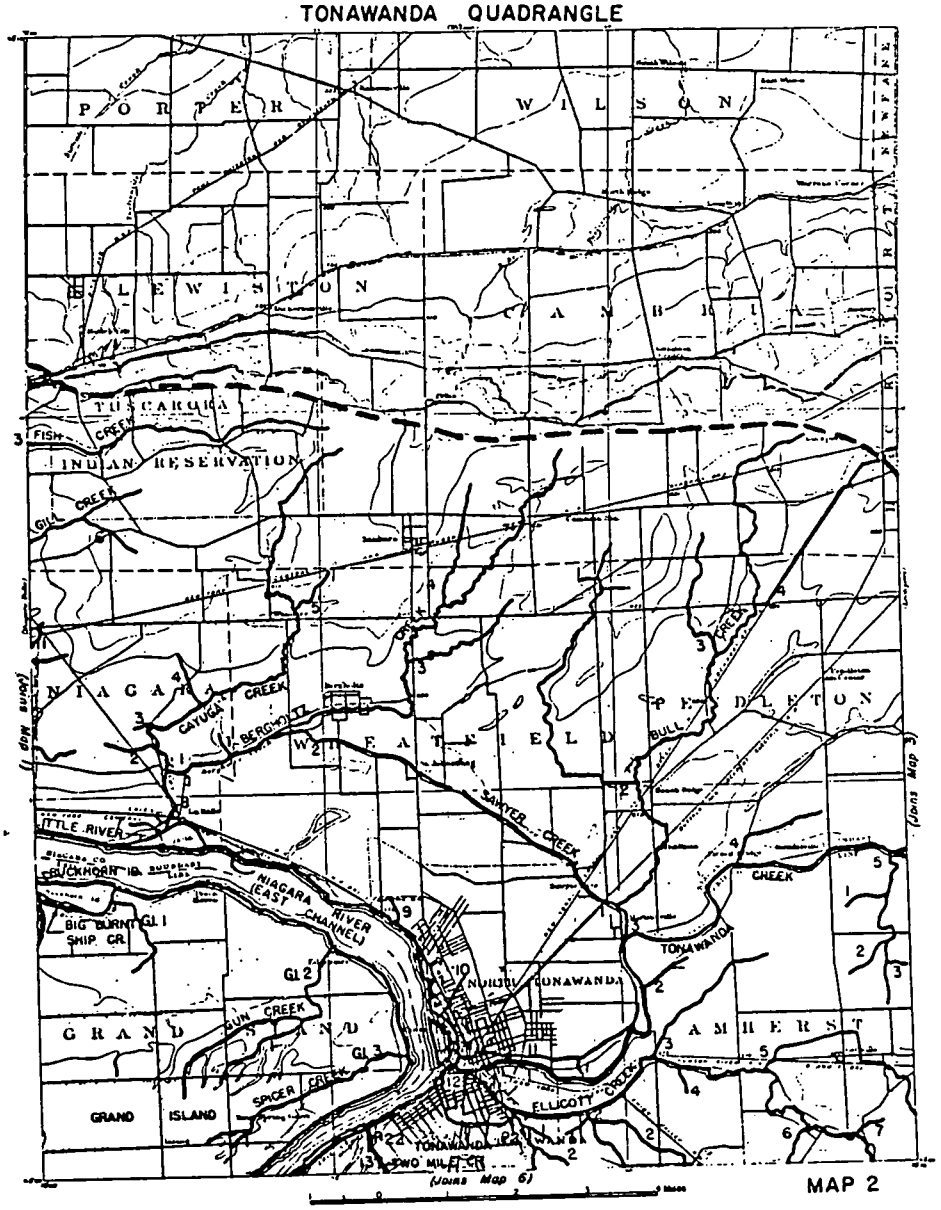
837.4 Table I.

TABLE I

Classifications and Standards of Quality and Purity Which Are Assigned to All Surface Waters within the Lake Erie (East End) - Niagara River Drainage Basin; Erie, Niagara, Genesee, Orleans and Wyoming Counties, New York

Item No.	Waters Index Number	Name	Description	Map Ref. No.	Class	Standards
1	0-158	Niagara River American side	Waters from international boundary to American shore between confluence with Lake Ontario and Lake Erie. Latter point is defined as a line running due west from south end of Bird Island ier to international boundary. These waters include all bays, arms, and inlets thereof, but not trib. streams or Black Rock Canal.	1,2,6	A-Special (international boundary waters)	A-Special (international boundary waters)
2	Black Rock Canal	Black Rock Canal	Waters east of Sqaw Island and Bird Island ier between canal locks and a line from south end of Bird Island ier to Buffalo harbor light #6.	6	C	C
3	0-158-1 and 2	Tributaries of Niagara River	Enter Niagara River from east in Town of Lewiston approximately 4.5 and 7.0 miles respectively from mouth.	1	C	C
4	0-158-3	Fish Creek	Enters Niagara River from east approximately 2.0 miles north of Niagara-Lewiston town line.	1,2	D	D
5	0-158-4 and P 1	Tributary of Niagara River	Enters Niagara River from east approximately 0.7 mile north of Niagara-Lewiston town line.	1	D	D

TONAWANDA QUADRANGLE



MAP 2

701.19 Classes and standards for fresh surface waters. The following items and specifications shall be the standards applicable to all New York fresh waters which are assigned the classification of AA, A, B, C or D, in addition to the specific standards which are found in this section under the heading of each such classification.

Quality Standards for Fresh Surface Waters

Items	*Specifications*
1. Turbidity.	No increase except from natural sources that will cause a substantial visible contrast to natural conditions. In cases of naturally turbid waters, the contrast will be due to increased turbidity.
2. Color.	None from man-made sources that will be detrimental to anticipated best usage of waters.
3. Suspended, colloidal or setteable solids.	None from sewage, industrial wastes or other wastes which will cause deposition or be deleterious for any best usage determined for the specific waters which are assigned to each class.
4. Oil and floating substances.	No residue attributable to sewage, industrial wastes or other wastes nor visible oil film nor globules of grease.
5. Taste and odor-producing substances, toxic wastes and deleterious substances.	None in amounts that will be injurious to fishlife or which in any manner shall adversely affect the flavor, color or odor thereof, or impair the waters for any best usage as determined for the specific water which are assigned to each class.
6. Thermal discharges.	(See Part 704 of this Title.)

CLASS "AA"

Best usage of waters. Source of water supply for drinking, culinary or food processing purposes and any other usages.

Conditions related to best usage of waters. The waters, if subjected to approved disinfection treatment, with additional treatment if necessary to remove naturally present impurities, will meet New York State Department of Health drinking water standards and will be considered safe and satisfactory for drinking water purposes.

Quality Standards for Class "AA" Waters

Items	*Specifications*
1. Coliform.	The monthly median coliform value for 100 ml of sample shall not exceed 50 from a minimum of five examinations and provided that not more than 20 percent of the samples shall exceed a coliform value of 240 for 100 ml of sample.
2. pH	Shall be between 6.5 and 8.5.

A-18

3. Total dissolved solids.	Shall be kept as low as practicable to maintain the best usage of waters, but in no case shall it exceed 500 milligrams per liter.
4. Dissolved oxygen.	For cold waters suitable for trout spawning, the DO concentration shall not be less than 7.0 mg/l from other than natural conditions. For trout waters, the minimum daily average shall not be less than 6.0 mg/l. At no time shall the DO concentration be less than 5.0 mg/l. For non-trout waters, the minimum daily average shall not be less than 5.0 mg/l. At no time shall the DO concentration be less than 4.0 mg/l.

CLASS "A"

Best usage of waters. Source of water supply for drinking, culinary or food processing purposes and any other usages.

Conditions related to best usage of waters. The waters, if subjected to approved treatment equal to coagulation, sedimentation, filtration and disinfection, with additional treatment if necessary to reduce naturally present impurities, will meet New York State Department of Health drinking water standards and will be considered safe and satisfactory for drinking water purposes.

Quality Standards for Class "A" Waters

Items	*Specifications*
1. Coliform	The monthly median coliform value for 100 ml of sample shall not exceed 5,000 from a minimum of five examinations, and provided that not more than 20 percent of the samples shall exceed a coliform value of 20,000 for 100 ml of sample and the monthly geometric mean fecal coliform value for 100 ml of sample shall not exceed 200 from a minimum of five examinations.
2. pH	Shall be between 6.5 and 8.5.
3. Total dissolved solids.	Shall be kept as low as practicable to maintain the best usage of waters, but in no case shall it exceed 500 milligrams per liter.
4. Dissolved oxygen.	For cold waters suitable for trout spawning, the DO concentration shall not be less than 7.0 mg/l from other than natural conditions. For trout waters, the minimum daily average shall not be less than 6.0 mg/l. At no time shall the DO concentration be less than 5.0 mg/l. For non-trout waters, the minimum daily average shall not be less than 5.0 mg/l. At no time shall the DO concentration be less than 4.0 mg/l.

APPENDIX B

APPENDIX B

PIEZOMETER INSTALLATION DIAGRAMS

Well No. PE-1
Project No. 576-002

Project Name Irondequoit

Client NYSDEC

Location

Date Drilled 10.25.90

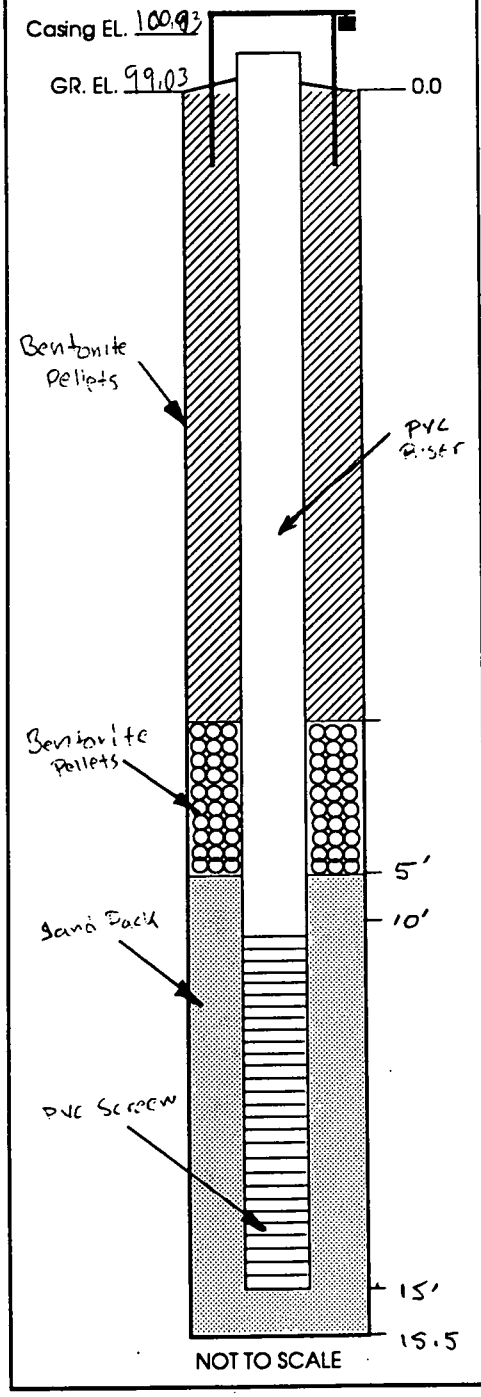
Date Developed

Developing Method

Well Construction Completed 10.27.90

MONITORING WELL COMPLETION LOG

WELL CONSTRUCTION DETAIL



Inspector Joe Gannon, Mark Tisdale
Drilling Contractor John Gucewich

Type of Well Piezometer
Static Water Level 94.79 Date 10.27.90
Measuring Point (M.P.) Ground Surface
Total Depth of Well 15'
Total Depth of boring 15.5'

Drilling Method
Type Soil Mechanic Diameter 3"
Casing None

Sampling Method
Type None Diameter
Weight Fall
Interval

Riser Pipe Left in Place
Material PVC Diameter 1.5"
Length 10' Joint Type Flush Thread

Screen
Material PVC Diameter 1.5"
Slot Size .010" Length 5'
Stratigraphic Unit Screened

Filter Pack
Sand ✓ Gravel Natural
Grade #60
Amount Interval 15.5' - 5'

Seal(s)
Type Bentonite Pellets Interval 5' - 0'
Type Interval
Type Interval

Locking Casing ☐ Yes ☒ No
Notes:

Well No. PZ-2
Project No. 576-043

Project Name Brzezinski

Client NYSDEC

Location —

Date Drilled 10.25.90

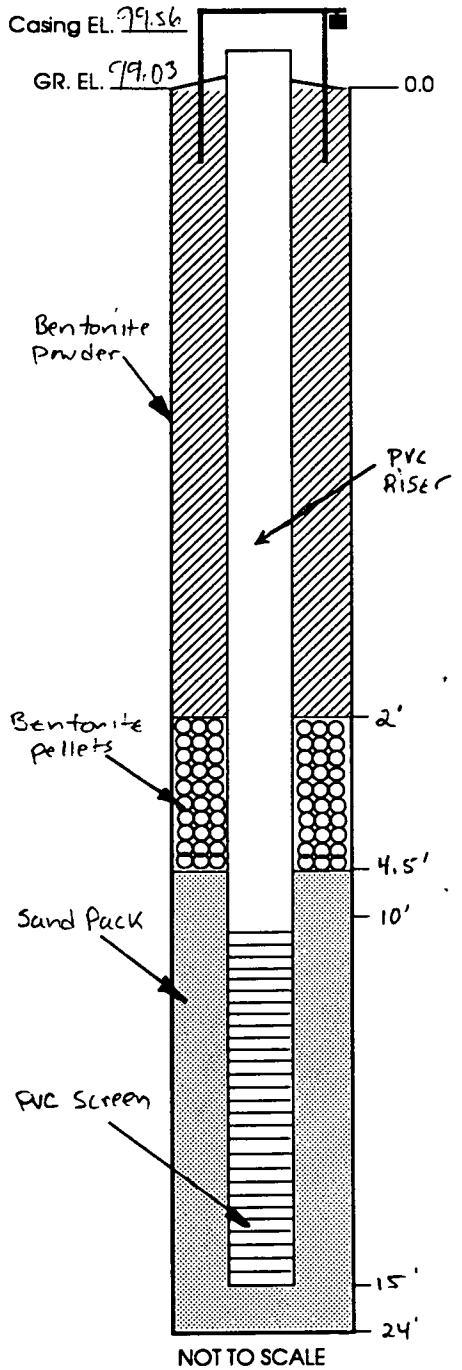
Date Developed —

Developing Method —

Well Construction Completed 10.27.90

MONITORING WELL COMPLETION LOG

WELL CONSTRUCTION DETAIL



NOT TO SCALE

Inspector Joe Simonelli, Kevin McCarty
Drilling Contractor John Guzmanick

Type of Well Piezometer
Static Water Level 90.53 Date 10.27.90
Measuring Point (M.P.) Ground Surface
Total Depth of Well 15'
Total Depth of boring 24'

Drilling Method
Type Soil Mechanic Diameter 3"
Casing None

Sampling Method
Type None Diameter —
Weight — Fall —
Interval —

Riser Pipe Left in Place
Material PVC Diameter 1.5"
Length 10 ft Joint Type Flush Thread

Screen
Material PVC Diameter 1.5"
Slot Size .010 Length 5 ft
Stratigraphic Unit Screened —

Filter Pack
Sand ✓ Gravel — Natural —
Grade #60
Amount — Interval 24'-4.5'

Seal(s)
Type Bentonite Pellets Interval 4.5'-2'
Type Bentonite Powder Interval 2'-0'
Type — Interval —

Locking Casing ☐ Yes ☒ No
Notes:

Well No. EE-3
Project No. 2116-043

Project Name Breezinski

Client NISEC

Location

Date Drilled 10.26.90

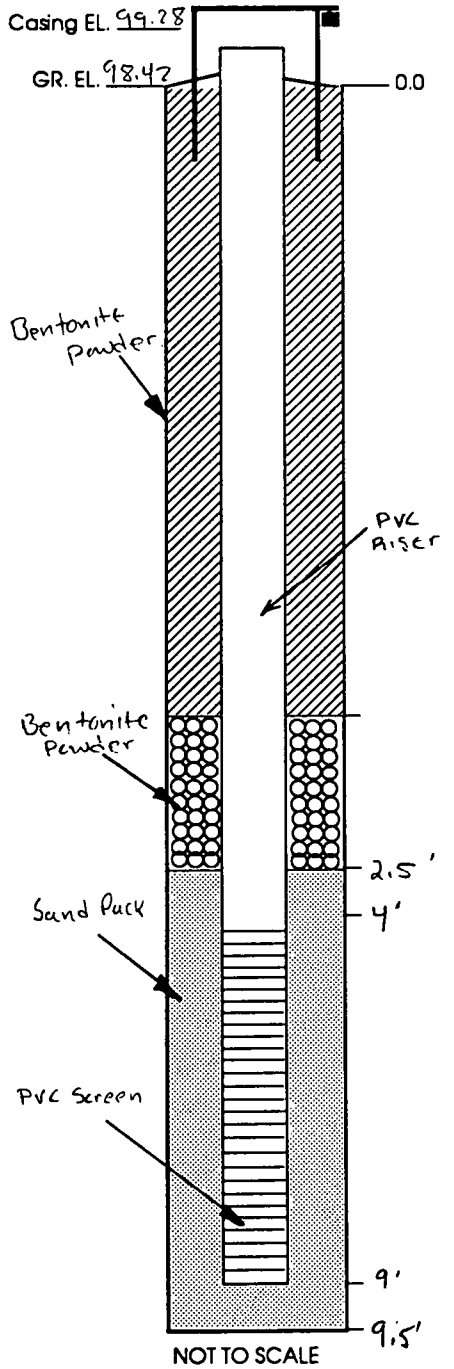
Date Developed —

Developing Method —

Well Construction Completed 10-26-90

MONITORING WELL COMPLETION LOG

WELL CONSTRUCTION DETAIL



Inspector Joe Giannelli Kevin McCarty
Drilling Contractor John Guzewicz

Type of Well Piezometer
Static Water Level 90.73 Date 10.27.90
Measuring Point (M.P.) Ground Surface
Total Depth of Well 9'
Total Depth of boring 9.5'

Drilling Method
Type Soil Mechanic Diameter 3"
Casing none

Sampling Method
Type none Diameter
Weight Fall
Interval

Riser Pipe Left in Place
Material PVC Diameter 1.5"
Length — Joint Type Flush-threaded

Screen
Material PVC Diameter 1.5"
Slot Size .010 Length 5'
Stratigraphic Unit Screened Black sandy silt

Filter Pack
Sand ✓ Gravel Natural
Grade #60
Amount Interval 9.5' - 2.5'

Seal(s)
Type Bentonite Powder Interval 2.5' - 0'
Type Interval
Type Interval

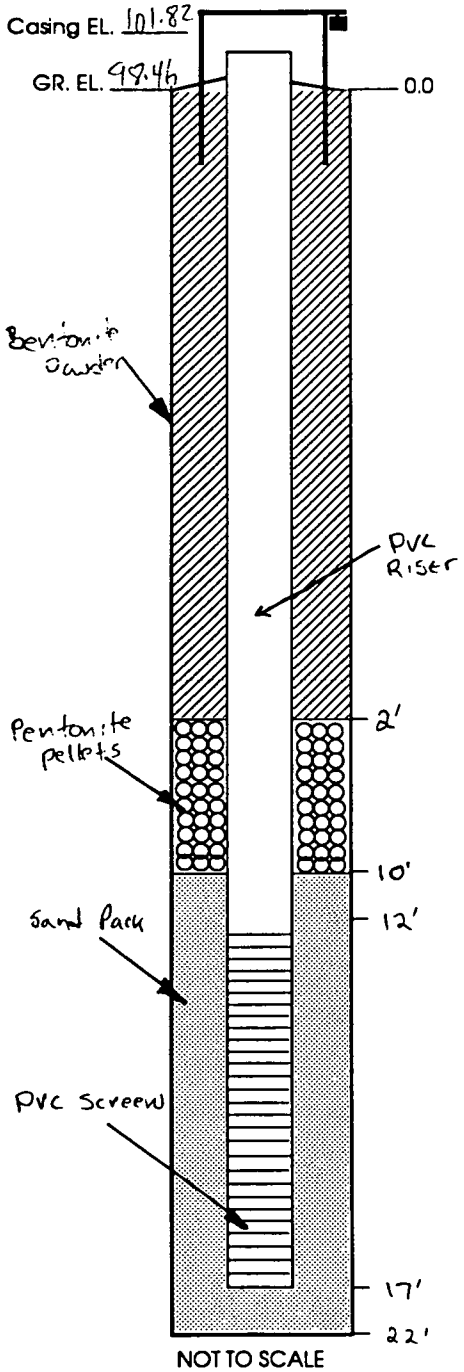
Locking Casing ☐ Yes ☒ No
Notes:

LAWLER, MATUSKY SKELLY ENGINEERS

Well No. Pz-4
Project No. 576-043
Project Name Berczynski
Client Dixie
Location
Date Drilled 10-26-90
Date Developed —
Developing Method —
Well Construction Completed 10-26-90

MONITORING WELL COMPLETION LOG

WELL CONSTRUCTION DETAIL



NOT TO SCALE

Inspector Joe Giannelli, Kevin McCarthy
Drilling Contractor John Guerrovich

Type of Well Piezometer
Static Water Level 92.12 Date 10-27-90
Measuring Point (M.P.) Ground Surface
Total Depth of Well 17'
Total Depth of boring 22'

Drilling Method
Type Soil Mechanic Diameter 3"
Casing NONE

Sampling Method
Type NONE Diameter
Weight Fall
Interval

Riser Pipe Left in Place
Material PVC Diameter 1.5"
Length 15' Joint Type Flush Thread

Screen
Material PVC Diameter 1.5"
Slot Size .010 Length 5'
Stratigraphic Unit Screened

Filter Pack
Sand ✓ Gravel Natural
Grade #60
Amount Interval 22'-10'

Seal(s)
Type Bentonite Pellets Interval 10'-2'
Type Bentonite Powder Interval 2'-0'
Type Interval

Locking Casing ☐ Yes ☒ No
Notes:

Well No. P2-5
Project No. 574-543

Project Name [illegible]

Client [illegible]

Location

Date Drilled 10-27-90

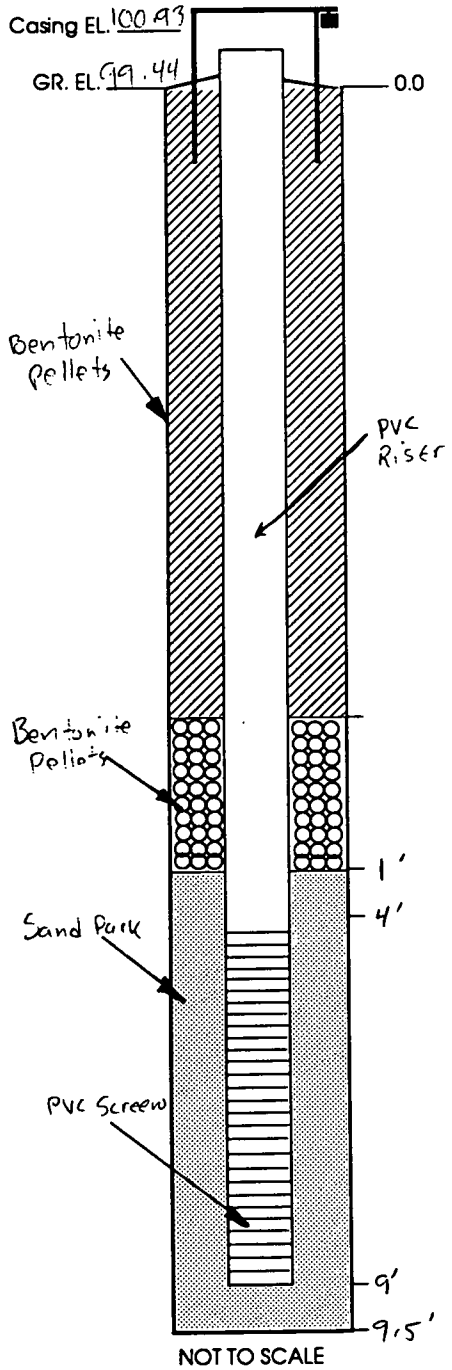
Date Developed

Developing Method

Well Construction Completed 10-27-90

MONITORING WELL COMPLETION LOG

WELL CONSTRUCTION DETAIL



NOT TO SCALE

Inspector Joe Grimmett, Hayes Mechanical

Drilling Contractor [illegible]

Type of Well Piezometer

Static Water Level 94.79 Date 10-27-90

Measuring Point (M.P.) Ground Surface

Total Depth of Well 9'

Total Depth of boring 9.5'

Drilling Method
Type Soil Mechanics Diameter 3"
Casing NONE

Sampling Method
Type NONE Diameter
Weight Fall
Interval

Riser Pipe Left in Place
Material PVC Diameter 1.5"
Length 5' Joint Type Flush Threaded

Screen
Material PVC Diameter 1.5"
Slot Size .010 Length 5'
Stratigraphic Unit Screened

Filter Pack
Sand ✓ Gravel Natural
Grade #60
Amount Interval 9.5'-1'

Seal(s)
Type Bentonite Pellets Interval 1'-0'
Type Interval
Type Interval

Locking Casing ☐ Yes ☒ No
Notes:

Well No. PZ-6
Project No. 526-003

Project Name [illegible]

Client [illegible]

MONITORING WELL COMPLETION LOG

Location

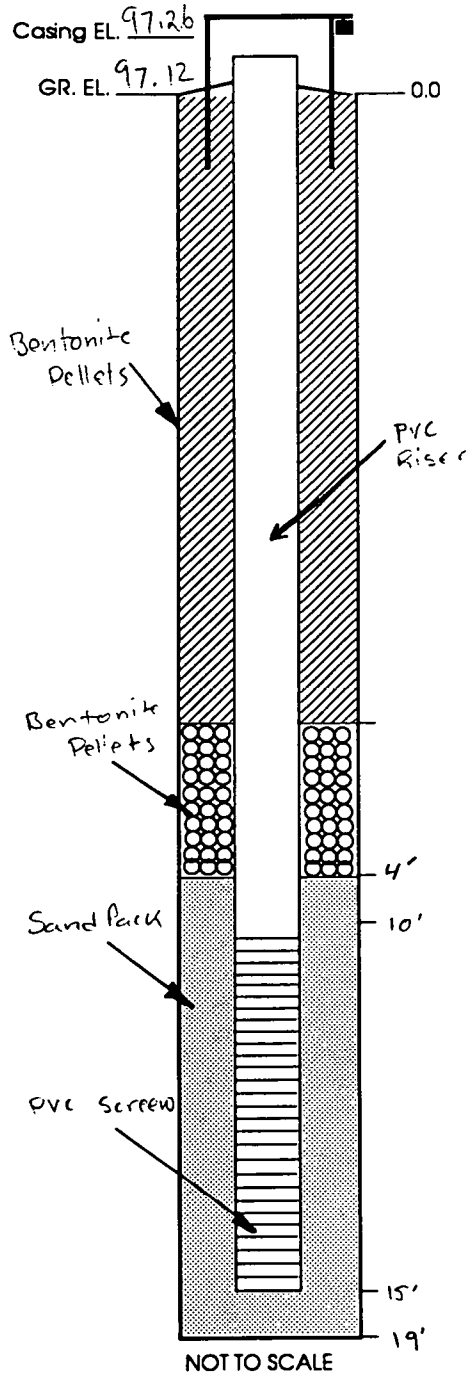
Date Drilled 10.27.90

Date Developed —

Developing Method —

Well Construction Completed 10.27.90

WELL CONSTRUCTION DETAIL



NOT TO SCALE

Inspector Joe Gilmell, Jovin McCarty
Drilling Contractor John Gurowitz

Type of Well Piezometer
Static Water Level 96.26 Date 10.27.90
Measuring Point (M.P.) Ground Surface
Total Depth of Well 15'
Total Depth of boring 19'

Drilling Method
Type Soil Mechanic Diameter 3"
Casing None

Sampling Method
Type None Diameter
Weight Fall
Interval

Riser Pipe Left in Place
Material PVC Diameter 1.5"
Length 10' Joint Type Flush Thread

Screen
Material PVC Diameter 1.5"
Slot Size .010 Length 5'
Stratigraphic Unit Screened

Filter Pack
Sand ✓ Gravel Natural
Grade # 60
Amount Interval 10'-4'

Seal(s)
Type Bentonite Pellets Interval 4'-0'
Type Interval
Type Interval

Locking Casing ☐ Yes ☒ No
Notes:

APPENDIX C

SOIL GAS RESULTS

TETRA·K TESTING

Mr. Ed Maikish
Lawler, Matusky & Skelly Engineers
One Blue Hill Plaza
Pearl River, NY 10965

January 17, 1991

Dear Mr. Maikish,

Enclosed please find the data report from the NYSDEC Phase II site; Brzezinski Property.

Some of the soil gas points installed by LMS Engineers were either set below the water table or were set in an impermeable layer. These points, SG-2, SG-3, SG-12, SG-17, SG-18, SG-24, SG-26, SG-35, SG-39 and SG-46 could not be sampled or analyzed and therefore, no data sheets are attached for these samples. The remainder of the samples were successfully sampled and analyzed and the results appear on the appropriate data sheets.

Also enclosed are copies of the field notes from the soil gas sample collection.

If you need any additional information do not hesitate to call.

Sincerely,

Stephen Knollmeyer
Mobile Laboratory Supervisor

SLK:mac
encl.

Westfield Executive Park
53 Southampton Road
Westfield, MA 01085
TEL. 413-562-9193
FAX. 413-562-5317

TETRA·K TESTING

VOLATILE ORGANICS REPORT

CLIENT:
LMS Engineers
One Blue Hill Plaza
Pearl River, NY 10965
Attn: Mr. Ed Maikish

Project: Brzezinski Property
Project Number: 23192

Date: 1/17/91

Sample ID: PZ-1
Sample No: n/a
Matrix: Water
Dilution Factor: 1
Collection Date: 10/27/90
Reciept Date: 10/27/90
Analysis Date: 10/27/90

RESULTS:

COMPOUND	Detection Limit ug/L	Result ug/L	COMPOUND	Detection Limit ug/L	Result ug/L
Methylene Chloride	50	ND	Dibromochloromethane	100	ND
Vinyl chloride	50	ND	1,1,2,-Trichloroethane	10	ND
1,1-Dichloroethene	5	ND	trans-1,3-Dichloropropene	10	ND
1,1-Dichloroethane	5	ND	1,1,2,2-Tetrachloroethane	50	ND
c/t-1,2-Dichloroethene	5	ND	Tetrachloroethene	10	ND
Chloroform	5	ND	Toluene	5	ND
1,2-Dichloroethane	20	ND	Chlorobenzene	5	ND
1,1,1-Trichloroethane	10	ND	Ethylbenzene	5	ND
Carbon Tetrachloride	10	ND	o-xylene	5	ND
Bromodichloromethane	100	ND	m & p-xylene	5	ND
1,2-Dichloropropane	10	ND	Acetone	100	ND
cis-1,3-Dichloropropene	10	ND	2-Butanone	50	ND
Trichloroethene	5	ND	4-methyl 2-pentanone	50	ND
Benzene	5	ND	2-hexanone	50	ND

ND = Not detected PR = Present but not calibrated for < = less than > = greater than

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph equipped with PID and FID detectors . The sample preparation method was EPA Method 3810; headspace screening method. The results were calculated using the internal standard method.

COMMENTS:

Water sample collected from piezometer.

Signed: Stephen Kwolek

Reviewed by: [illegible] 1/25

A DIVISION OF TIGHE & BOND, INC.

Westfield Executive Park
53 Southampton Road
Westfield, MA 01085
TEL. 413-562-9193
FAX. 413-562-5317

TETRA·K TESTING

VOLATILE ORGANICS REPORT

CLIENT:
LMS Engineers
One Blue Hill Plaza
Pearl River, NY 10965
Attn: Mr. Ed Maikish

Project: Brzezinski Property
Project Number: 23192

Date: 1/17/91
Sample ID: PZ-2
Sample No: n/a
Matrix: Water
Dilution Factor: 1
Collection Date: 10/27/90
Reciept Date: 10/27/90
Analysis Date: 10/27/90

RESULTS:

COMPOUND	Detection Limit ug/L	Result ug/L	COMPOUND	Detection Limit ug/L	Result ug/L
Methylene Chloride	50	ND	Dibromochloromethane	100	ND
Vinyl chloride	50	ND	1,1,2,-Trichloroethane	10	ND
1,1-Dichloroethene	5	ND	trans-1,3-Dichloropropene	10	ND
1,1-Dichloroethane	5	ND	1,1,2,2-Tetrachloroethane	50	ND
c/t-1,2-Dichloroethene	5	ND	Tetrachloroethene	10	ND
Chloroform	5	ND	**Toluene**	5	**BQL**
1,2-Dichloroethane	20	ND	**Chlorobenzene**	5	**5.2**
1,1,1-Trichloroethane	10	ND	**Ethylbenzene**	5	**11**
Carbon Tetrachloride	10	ND	**o-xylene**	5	**13**
Bromodichloromethane	100	ND	**m & p-xylene**	5	**24**
1,2-Dichloropropane	10	ND	Acetone	100	ND
cis-1,3-Dichloropropene	10	ND	2-Butanone	50	ND
Trichloroethene	5	ND	4-methyl 2-pentanone	50	ND
Benzene	5	**5.9**	2-hexanone	50	ND

ND = Not detected PR = Present but not calibrated for < = less than > = greater than

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph equipped with PID and FID detectors . The sample preparation method was EPA Method 3810; headspace screening method. The results were calculated using the internal standard method.

COMMENTS:

Water sample collected from piezometer.
BQL= Below Quantitation (detection) Limit

Signed: Stephen Kneller

Reviewed by: CBB 1/25

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Westfield Executive Park
53 Southampton Road
Westfield, MA 01085
TEL. 413-562-9193
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TETRA·K TESTING

VOLATILE ORGANICS REPORT

CLIENT:	**Date:** 1/17/91
LMS Engineers	
One Blue Hill Plaza	**Sample ID:** PZ-4
Pearl River, NY 10965	**Sample No:** n/a
Attn: Mr. Ed Maikish	**Matrix:** Water
	Dilution Factor: 1
Project: Brzezinski Property	**Collection Date:** 10/27/90
Project Number: 23192	**Reciept Date:** 10/27/90
	Analysis Date: 10/27/90

RESULTS:

COMPOUND	Detection Limit ug/L	Result ug/L	COMPOUND	Detection Limit ug/L	Result ug/L
Methylene Chloride	50	ND	Dibromochloromethane	100	ND
Vinyl chloride	50	ND	1,1,2,-Trichloroethane	10	ND
1,1-Dichloroethene	5	ND	trans-1,3-Dichloropropene	10	ND
1,1-Dichloroethane	5	ND	1,1,2,2-Tetrachloroethane	50	ND
c/t-1,2-Dichloroethene	5	ND	Tetrachloroethene	10	ND
Chloroform	5	ND	Toluene	5	ND
1,2-Dichloroethane	20	ND	Chlorobenzene	5	ND
1,1,1-Trichloroethane	10	ND	Ethylbenzene	5	ND
Carbon Tetrachloride	10	ND	o-xylene	5	ND
Bromodichloromethane	100	ND	m & p-xylene	5	ND
1,2-Dichloropropane	10	ND	Acetone	100	ND
cis-1,3-Dichloropropene	10	ND	2-Butanone	50	ND
Trichloroethene	5	ND	4-methyl 2-pentanone	50	ND
Benzene	5	**BQL**	2-hexanone	50	ND

ND = Not detected PR = Present but not calibrated for < = less than > = greater than

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph equipped with PID and FID detectors . The sample preparation method was EPA Method 3810; headspace screening method. The results were calculated using the internal standard method.

COMMENTS:

Water sample collected from piezometer.
BQL=Below Quantitation (detection) Limit

Signed: Steph Kolb

Reviewed by: TES 1/25

Westfield Executive Park
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TETRA·K TESTING

VOLATILE ORGANICS REPORT

CLIENT:
LMS Engineers
One Blue Hill Plaza
Pearl River, NY 10965
Attn: Mr. Ed Maikish

Project: Brzezinski Property
Project Number: 23192

Date: 1/17/91

Sample ID: PZ-5
Sample No: n/a
Matrix: Water
Dilution Factor: 1
Collection Date: 10/27/90
Reciept Date: 10/27/90
Analysis Date: 10/27/90

RESULTS:

COMPOUND	Detection Limit ug/L	Result ug/L	COMPOUND	Detection Limit ug/L	Result ug/L
Methylene Chloride	50	ND	Dibromochloromethane	100	ND
Vinyl chloride	50	ND	1,1,2,-Trichloroethane	10	ND
1,1-Dichloroethene	5	ND	trans-1,3-Dichloropropene	10	ND
1,1-Dichloroethane	5	ND	1,1,2,2-Tetrachloroethane	50	ND
c/t-1,2-Dichloroethene	5	ND	Tetrachloroethene	10	ND
Chloroform	5	ND	**Toluene**	5	BQL
1,2-Dichloroethane	20	ND	Chlorobenzene	5	ND
1,1,1-Trichloroethane	10	ND	Ethylbenzene	5	ND
Carbon Tetrachloride	10	ND	o-xylene	5	ND
Bromodichloromethane	100	ND	m & p-xylene	5	ND
1,2-Dichloropropane	10	ND	Acetone	100	ND
cis-1,3-Dichloropropene	10	ND	2-Butanone	50	ND
Trichloroethene	5	ND	4-methyl 2-pentanone	50	ND
Benzene	5	ND	2-hexanone	50	ND

ND = Not detected PR = Present but not calibrated for < = less than > = greater than

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph equipped with PID and FID detectors . The sample preparation method was EPA Method 3810; headspace screening method. The results were calculated using the internal standard method.

COMMENTS:

BQL=Below Quantitation (detection) Limit.
Water sample collected from piezometer.

Signed: Steph Kelley

Reviewed by: [illegible] 1/21

Westfield Executive Park
53 Southampton Road
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TETRA·K TESTING

VOLATILE ORGANICS REPORT

CLIENT:
LMS Engineers
One Blue Hill Plaza
Pearl River, NY 10965
Attn: Mr. Ed Maikish

Project: Brzezinski Property
Project Number: 23192

Date: 1/17/91

Sample ID: PZ-6
Sample No: n/a
Matrix: Water
Dilution Factor: 1
Collection Date: 10/27/90
Reciept Date: 10/27/90
Analysis Date: 10/27/90

RESULTS:

COMPOUND	Detection Limit ug/L	Result ug/L	COMPOUND	Detection Limit ug/L	Result ug/L
Methylene Chloride	50	ND	Dibromochloromethane	100	ND
Vinyl chloride	50	ND	1,1,2,-Trichloroethane	10	ND
1,1-Dichloroethene	5	ND	trans-1,3-Dichloropropene	10	ND
1,1-Dichloroethane	5	ND	1,1,2,2-Tetrachloroethane	50	ND
c/t-1,2-Dichloroethene	5	ND	Tetrachloroethene	10	ND
Chloroform	5	ND	Toluene	5	ND
1,2-Dichloroethane	20	ND	Chlorobenzene	5	ND
1,1,1-Trichloroethane	10	ND	Ethylbenzene	5	ND
Carbon Tetrachloride	10	ND	o-xylene	5	ND
Bromodichloromethane	100	ND	m & p-xylene	5	ND
1,2-Dichloropropane	10	ND	Acetone	100	ND
cis-1,3-Dichloropropene	10	ND	2-Butanone	50	ND
Trichloroethene	5	ND	4-methyl 2-pentanone	50	ND
Benzene	5	5.9	2-hexanone	50	ND

ND = Not detected PR = Present but not calibrated for < = less than > = greater than

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph equipped with PID and FID detectors . The sample preparation method was EPA Method 3810; headspace screening method. The results were calculated using the internal standard method.

COMMENTS:

Water sample collected from piezometer.

Signed: Stephen Kneiling

Reviewed by: [illegible] 1/21

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TETRA·K TESTING

VOLATILE ORGANICS REPORT

Client:		Date:	1/17/91
LMS Engineers		Sample ID:	SG-1
One Blue Hill Plaza		Matrix:	soil gas
Pearl River, NY 10965		Injection volume (ml):	5
Project: Brzezinski Property		Collection Date:	10/28/90
Project Number: 23192		Analysis Date:	10/28/90

RESULTS:

COMPOUND	DETECTION LIMIT mg/cu. m.	DETECTION LIMIT ppb v/v	RESULT mg/cu. m.	RESULT ppb v/v
Methylene Chloride	0.1	20	ND	ND
Vinyl Chloride	0.1	20	ND	ND
1,1-Dichloroethene	0.1	15	ND	ND
1,1-Dichloroethane	0.1	15	ND	ND
cis/trans-1,2-Dichloroethene	0.1	15	ND	ND
Chloroform	0.1	10	ND	ND
1,2-Dichloroethane	0.2	40	ND	ND
1,1,1-Trichloroethane	0.1	15	ND	ND
Carbon Tetrachloride	0.1	15	ND	ND
Bromodichloromethane	0.1	10	ND	ND
1,2-Dichloropropane	0.1	15	ND	ND
cis-1,3-Dichloropropene	0.1	15	ND	ND
Trichloroethene	**0.1**	**15**	**BQL**	**BQL**
Benzene	0.3	100	ND	ND
Dibromochloromethane	0.1	10	ND	ND
1,1,2,-Trichloroethane	0.1	10	ND	ND
trans-1,3-Dichloropropene	0.1	15	ND	ND
1,1,2,2-Tetrachloroethane	0.1	15	ND	ND
Tetrachloroethene	**0.1**	**10**	**BQL**	**BQL**
Toluene	0.4	100	ND	ND
Chlorobenzene	0.5	100	ND	ND
Ethylbenzene	0.5	100	ND	ND
o-xylene	0.7	150	ND	ND
m &p-xylene	0.7	150	ND	ND
Acetone	0.3	100	ND	ND
2-butanone	0.3	100	ND	ND
4-Methyl 2-pentanone	0.4	100	ND	ND
2-Hexanone	0.4	100	ND	ND

ND = Not detected PR = Present but not calibrated for < = less than > = greater than

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ECD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

BQL=Below Quantitation (detection) Limit

Signed: Stephen Kelley Reviewed by: KSB 1/25

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FAX. 413-562-5317

TETRA·K TESTING

VOLATILE ORGANICS REPORT

Client:		Date:	1/17/91
LMS Engineers		Sample ID:	SG-4
One Blue Hill Plaza		Matrix:	soil gas
Pearl River, NY 10965		Injection volume (ml):	5
Project: Brzezinski Property		Collection Date:	10/28/90
Project Number: 23192		Analysis Date:	10/28/90

RESULTS:

COMPOUND	DETECTION LIMIT mg/cu. m.	DETECTION LIMIT ppb v/v	RESULT mg/cu. m.	RESULT ppb v/v
Methylene Chloride	0.1	20	ND	ND
Vinyl Chloride	0.1	20	ND	ND
1,1-Dichloroethene	0.1	15	ND	ND
1,1-Dichloroethane	0.1	15	ND	ND
cis/trans-1,2-Dichloroethene	0.1	15	ND	ND
Chloroform	**0.1**	**10**	**0.1**	**11**
1,2-Dichloroethane	0.2	40	ND	ND
1,1,1-Trichloroethane	**0.1**	**15**	**BQL**	**BQL**
Carbon Tetrachloride	0.1	15	ND	ND
Bromodichloromethane	0.1	10	ND	ND
1,2-Dichloropropane	0.1	15	ND	ND
cis-1,3-Dichloropropene	0.1	15	ND	ND
Trichloroethene	**0.1**	**15**	**0.1**	**16**
Benzene	0.3	100	ND	ND
Dibromochloromethane	0.1	10	ND	ND
1,1,2,-Trichloroethane	0.1	10	ND	ND
trans-1,3-Dichloropropene	0.1	15	ND	ND
1,1,2,2-Tetrachloroethane	0.1	15	ND	ND
Tetrachloroethene	**0.1**	**10**	**0.3**	**36**
Toluene	0.4	100	ND	ND
Chlorobenzene	0.5	100	ND	ND
Ethylbenzene	0.5	100	ND	ND
o-xylene	0.7	150	ND	ND
m &p-xylene	0.7	150	ND	ND
Acetone	0.3	100	ND	ND
2-butanone	0.3	100	ND	ND
4-Methyl 2-pentanone	0.4	100	ND	ND
2-Hexanone	0.4	100	ND	ND

ND = Not detected PR = Present but not calibrated for < = less than > = greater than

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ECD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

BQL=Below Quantitation (detection) Limit

Signed: Stephen Kyalley Reviewed by: KSS 1/25

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TETRA·K TESTING

VOLATILE ORGANICS REPORT

Client:		Date:	1/17/91
LMS Engineers		Sample ID:	SG-5
One Blue Hill Plaza		Matrix:	soil gas
Pearl River, NY 10965		Injection volume (ml):	5
Project: Brzezinski Property		Collection Date:	10/28/90
Project Number: 23192		Analysis Date:	10/28/90

RESULTS:

COMPOUND	DETECTION LIMIT mg/cu. m.	DETECTION LIMIT ppb v/v	RESULT mg/cu. m.	RESULT ppb v/v
Methylene Chloride	0.1	20	ND	ND
Vinyl Chloride	0.1	20	ND	ND
1,1-Dichloroethene	0.1	15	ND	ND
1,1-Dichloroethane	0.1	15	ND	ND
cis/trans-1,2-Dichloroethene	0.1	15	ND	ND
Chloroform	0.1	10	ND	ND
1,2-Dichloroethane	0.2	40	ND	ND
1,1,1-Trichloroethane	**0.1**	**15**	**BQL**	**BQL**
Carbon Tetrachloride	0.1	15	ND	ND
Bromodichloromethane	0.1	10	ND	ND
1,2-Dichloropropane	0.1	15	ND	ND
cis-1,3-Dichloropropene	0.1	15	ND	ND
Trichloroethene	**0.1**	**15**	**0.1**	**17**
Benzene	0.3	100	ND	ND
Dibromochloromethane	0.1	10	ND	ND
1,1,2,-Trichloroethane	0.1	10	ND	ND
trans-1,3-Dichloropropene	0.1	15	ND	ND
1,1,2,2-Tetrachloroethane	0.1	15	ND	ND
Tetrachloroethene	**0.1**	**10**	**BQL**	**BQL**
Toluene	0.4	100	ND	ND
Chlorobenzene	0.5	100	ND	ND
Ethylbenzene	0.5	100	ND	ND
o-xylene	0.7	150	ND	ND
m &p-xylene	0.7	150	ND	ND
Acetone	0.3	100	ND	ND
2-butanone	0.3	100	ND	ND
4-Methyl 2-pentanone	0.4	100	ND	ND
2-Hexanone	0.4	100	ND	ND

ND = Not detected PR = Present but not calibrated for < = less than > = greater than

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ECD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

BQL=Below Quantitation (detection) Limit

Signed: Steph Kadlec Reviewed by: KES 1/24

Westfield Executive Park
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TETRA·K TESTING

VOLATILE ORGANICS REPORT

Client:	Date:	1/17/91
LMS Engineers	Sample ID:	SG-6
One Blue Hill Plaza	Matrix:	soil gas
Pearl River, NY 10965	Injection volume (ml):	5
Project: Brzezinski Property	Collection Date:	10/28/90
Project Number: 23192	Analysis Date:	10/28/90

RESULTS:

COMPOUND	DETECTION LIMIT mg/cu. m.	DETECTION LIMIT ppb v/v	RESULT mg/cu. m.	RESULT ppb v/v
Methylene Chloride	0.1	20	ND	ND
Vinyl Chloride	0.1	20	ND	ND
1,1-Dichloroethene	0.1	15	ND	ND
1,1-Dichloroethane	0.1	15	ND	ND
cis/trans-1,2-Dichloroethene	0.1	15	ND	ND
Chloroform	0.1	10	ND	ND
1,2-Dichloroethane	0.2	40	ND	ND
1,1,1-Trichloroethane	0.1	15	ND	ND
Carbon Tetrachloride	0.1	15	ND	ND
Bromodichloromethane	0.1	10	ND	ND
1,2-Dichloropropane	0.1	15	ND	ND
cis-1,3-Dichloropropene	0.1	15	ND	ND
Trichloroethene	**0.1**	**15**	**0.2**	**29**
Benzene	0.3	100	ND	ND
Dibromochloromethane	0.1	10	ND	ND
1,1,2,-Trichloroethane	0.1	10	ND	ND
trans-1,3-Dichloropropene	0.1	15	ND	ND
1,1,2,2-Tetrachloroethane	0.1	15	ND	ND
Tetrachloroethene	**0.1**	**10**	**BQL**	**BQL**
Toluene	0.4	100	ND	ND
Chlorobenzene	0.5	100	ND	ND
Ethylbenzene	0.5	100	ND	ND
o-xylene	0.7	150	ND	ND
m &p-xylene	0.7	150	ND	ND
Acetone	0.3	100	ND	ND
2-butanone	0.3	100	ND	ND
4-Methyl 2-pentanone	0.4	100	ND	ND
2-Hexanone	0.4	100	ND	ND

ND = Not detected PR = Present but not calibrated for < = less than > = greater than

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ECD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

BQL=Below Quantitation (detection) Limit

Signed: Stephen Kneeley Reviewed by: KES 1/25

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TETRA·K TESTING

VOLATILE ORGANICS REPORT

Client:		Date:	1/17/91
LMS Engineers		Sample ID:	SG-7
One Blue Hill Plaza		Matrix:	soil gas
Pearl River, NY 10965		Injection volume (ml):	5
Project: Brzezinski Property		Collection Date:	10/28/90
Project Number: 23192		Analysis Date:	10/28/90

RESULTS:

COMPOUND	DETECTION LIMIT mg/cu. m.	DETECTION LIMIT ppb v/v	RESULT mg/cu. m.	RESULT ppb v/v
Methylene Chloride	0.1	20	ND	ND
Vinyl Chloride	0.1	20	ND	ND
1,1-Dichloroethene	0.1	15	ND	ND
1,1-Dichloroethane	0.1	15	ND	ND
cis/trans-1,2-Dichloroethene	0.1	15	ND	ND
Chloroform	**0.1**	**10**	**0.1**	**20**
1,2-Dichloroethane	0.2	40	ND	ND
1,1,1-Trichloroethane	0.1	15	ND	ND
Carbon Tetrachloride	0.1	15	ND	ND
Bromodichloromethane	0.1	10	ND	ND
1,2-Dichloropropane	0.1	15	ND	ND
cis-1,3-Dichloropropene	0.1	15	ND	ND
Trichloroethene	**0.1**	**15**	**BQL**	**BQL**
Benzene	0.3	100	ND	ND
Dibromochloromethane	0.1	10	ND	ND
1,1,2,-Trichloroethane	0.1	10	ND	ND
trans-1,3-Dichloropropene	0.1	15	ND	ND
1,1,2,2-Tetrachloroethane	0.1	15	ND	ND
Tetrachloroethene	0.1	10	ND	ND
Toluene	0.4	100	ND	ND
Chlorobenzene	0.5	100	ND	ND
Ethylbenzene	0.5	100	ND	ND
o-xylene	0.7	150	ND	ND
m &p-xylene	0.7	150	ND	ND
Acetone	0.3	100	ND	ND
2-butanone	0.3	100	ND	ND
4-Methyl 2-pentanone	0.4	100	ND	ND
2-Hexanone	0.4	100	ND	ND

ND = Not detected PR = Present but not calibrated for < = less than > = greater than

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ECD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

BQL=Below Quantitation (detection) Limit

Signed: Stephen Kadlec Reviewed by: TES 1/25

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TETRA·K TESTING

VOLATILE ORGANICS REPORT

Client:	Date:	1/17/91
LMS Engineers	Sample ID:	SG-8
One Blue Hill Plaza	Matrix:	soil gas
Pearl River, NY 10965	Injection volume (ml):	5
Project: Brzezinski Property	Collection Date:	10/28/90
Project Number: 23192	Analysis Date:	10/28/90

RESULTS:

COMPOUND	DETECTION LIMIT mg/cu. m.	DETECTION LIMIT ppb v/v	RESULT mg/cu. m.	RESULT ppb v/v
Methylene Chloride	0.1	20	ND	ND
Vinyl Chloride	0.1	20	ND	ND
1,1-Dichloroethene	0.1	15	ND	ND
1,1-Dichloroethane	0.1	15	ND	ND
cis/trans-1,2-Dichloroethene	0.1	15	ND	ND
Chloroform	**0.1**	**10**	**0.1**	**17**
1,2-Dichloroethane	0.2	40	ND	ND
1,1,1-Trichloroethane	0.1	15	ND	ND
Carbon Tetrachloride	0.1	15	ND	ND
Bromodichloromethane	0.1	10	ND	ND
1,2-Dichloropropane	0.1	15	ND	ND
cis-1,3-Dichloropropene	0.1	15	ND	ND
Trichloroethene	**0.1**	**15**	**BQL**	**BQL**
Benzene	0.3	100	ND	ND
Dibromochloromethane	0.1	10	ND	ND
1,1,2,-Trichloroethane	0.1	10	ND	ND
trans-1,3-Dichloropropene	0.1	15	ND	ND
1,1,2,2-Tetrachloroethane	0.1	15	ND	ND
Tetrachloroethene	0.1	10	ND	ND
Toluene	0.4	100	ND	ND
Chlorobenzene	0.5	100	ND	ND
Ethylbenzene	0.5	100	ND	ND
o-xylene	0.7	150	ND	ND
m &p-xylene	0.7	150	ND	ND
Acetone	0.3	100	ND	ND
2-butanone	0.3	100	ND	ND
4-Methyl 2-pentanone	0.4	100	ND	ND
2-Hexanone	0.4	100	ND	ND

ND = Not detected PR = Present but not calibrated for < = less than > = greater than

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ECD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

BQL=Below Quantitation (detection) Limit

Signed: Stephen Kelley Reviewed by: KS

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TETRA·K TESTING

VOLATILE ORGANICS REPORT

Client:		Date:	1/17/91
LMS Engineers		Sample ID:	SG-9
One Blue Hill Plaza		Matrix:	soil gas
Pearl River, NY 10965		Injection volume (ml):	5
Project: Brzezinski Property		Collection Date:	10/28/90
Project Number: 23192		Analysis Date:	10/28/90

RESULTS:

COMPOUND	DETECTION LIMIT mg/cu. m.	DETECTION LIMIT ppb v/v	RESULT mg/cu. m.	RESULT ppb v/v
Methylene Chloride	0.1	20	ND	ND
Vinyl Chloride	0.1	20	ND	ND
1,1-Dichloroethene	0.1	15	ND	ND
1,1-Dichloroethane	0.1	15	ND	ND
cis/trans-1,2-Dichloroethene	0.1	15	ND	ND
Chloroform	0.1	10	ND	ND
1,2-Dichloroethane	0.2	40	ND	ND
1,1,1-Trichloroethane	0.1	15	ND	ND
Carbon Tetrachloride	0.1	15	ND	ND
Bromodichloromethane	0.1	10	ND	ND
1,2-Dichloropropane	0.1	15	ND	ND
cis-1,3-Dichloropropene	0.1	15	ND	ND
Trichloroethene	**0.1**	**15**	**BQL**	**BQL**
Benzene	0.3	100	ND	ND
Dibromochloromethane	0.1	10	ND	ND
1,1,2,-Trichloroethane	0.1	10	ND	ND
trans-1,3-Dichloropropene	0.1	15	ND	ND
1,1,2,2-Tetrachloroethane	0.1	15	ND	ND
Tetrachloroethene	0.1	10	ND	ND
Toluene	0.4	100	ND	ND
Chlorobenzene	0.5	100	ND	ND
Ethylbenzene	0.5	100	ND	ND
o-xylene	0.7	150	ND	ND
m &p-xylene	0.7	150	ND	ND
Acetone	0.3	100	ND	ND
2-butanone	0.3	100	ND	ND
4-Methyl 2-pentanone	0.4	100	ND	ND
2-Hexanone	0.4	100	ND	ND

ND = Not detected PR = Present but not calibrated for < = less than > = greater than

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ECD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

BQL=Below Quantitation (detection) Limit

Signed: [signature]

Reviewed by: [signature] 1/25

Westfield Executive Park
53 Southampton Road
Westfield, MA 01085
TEL. 413-562-9193
FAX. 413-562-5317

TETRA·K TESTING

VOLATILE ORGANICS REPORT

Client:		Date:	1/17/91
LMS Engineers		Sample ID:	SG-10
One Blue Hill Plaza		Matrix:	soil gas
Pearl River, NY 10965		Injection volume (ml):	5
Project: Brzezinski Property		Collection Date:	10/28/90
Project Number: 23192		Analysis Date:	10/28/90

RESULTS:

COMPOUND	DETECTION LIMIT mg/cu. m.	DETECTION LIMIT ppb v/v	RESULT mg/cu. m.	RESULT ppb v/v
Methylene Chloride	0.1	20	ND	ND
Vinyl Chloride	0.1	20	ND	ND
1,1-Dichloroethene	0.1	15	ND	ND
1,1-Dichloroethane	0.1	15	ND	ND
cis/trans-1,2-Dichloroethene	0.1	15	ND	ND
Chloroform	**0.1**	**10**	**0.14**	**26**
1,2-Dichloroethane	0.2	40	ND	ND
1,1,1-Trichloroethane	**0.1**	**15**	**BQL**	**BQL**
Carbon Tetrachloride	**0.1**	**15**	**BQL**	**BQL**
Bromodichloromethane	0.1	10	ND	ND
1,2-Dichloropropane	0.1	15	ND	ND
cis-1,3-Dichloropropene	0.1	15	ND	ND
Trichloroethene	**0.1**	**15**	**0.23**	**40**
Benzene	0.3	100	ND	ND
Dibromochloromethane	0.1	10	ND	ND
1,1,2,-Trichloroethane	0.1	10	ND	ND
trans-1,3-Dichloropropene	0.1	15	ND	ND
1,1,2,2-Tetrachloroethane	0.1	15	ND	ND
Tetrachloroethene	**0.1**	**10**	**0.96**	**130**
Toluene	0.4	100	ND	ND
Chlorobenzene	0.5	100	ND	ND
Ethylbenzene	0.5	100	ND	ND
o-xylene	0.7	150	ND	ND
m &p-xylene	0.7	150	ND	ND
Acetone	0.3	100	ND	ND
2-butanone	0.3	100	ND	ND
4-Methyl 2-pentanone	0.4	100	ND	ND
2-Hexanone	0.4	100	ND	ND

ND = Not detected PR = Present but not calibrated for < = less than > = greater than

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ECD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

BQL=Below Quantitation (detection) Limit

Signed: Steph Koelbye Reviewed by: KSB 1/25

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FAX. 413-562-5317

TETRA·K TESTING

VOLATILE ORGANICS REPORT

Client:		Date:	1/17/91
LMS Engineers		Sample ID:	SG-11
One Blue Hill Plaza		Matrix:	soil gas
Pearl River, NY 10965		Injection volume (ml):	5
Project: Brzezinski Property		Collection Date:	10/28/90
Project Number: 23192		Analysis Date:	10/28/90

RESULTS:

COMPOUND	DETECTION LIMIT mg/cu. m.	DETECTION LIMIT ppb v/v	RESULT mg/cu. m.	RESULT ppb v/v
Methylene Chloride	0.1	20	ND	ND
Vinyl Chloride	0.1	20	ND	ND
1,1-Dichloroethene	0.1	15	ND	ND
1,1-Dichloroethane	0.1	15	ND	ND
cis/trans-1,2-Dichloroethene	0.1	15	ND	ND
Chloroform	**0.1**	**10**	**BQL**	**BQL**
1,2-Dichloroethane	0.2	40	ND	ND
1,1,1-Trichloroethane	0.1	15	ND	ND
Carbon Tetrachloride	0.1	15	ND	ND
Bromodichloromethane	0.1	10	ND	ND
1,2-Dichloropropane	0.1	15	ND	ND
cis-1,3-Dichloropropene	0.1	15	ND	ND
Trichloroethene	**0.1**	**15**	**0.29**	**49**
Benzene	0.3	100	ND	ND
Dibromochloromethane	0.1	10	ND	ND
1,1,2,-Trichloroethane	0.1	10	ND	ND
trans-1,3-Dichloropropene	0.1	15	ND	ND
1,1,2,2-Tetrachloroethane	0.1	15	ND	ND
Tetrachloroethene	**0.1**	**10**	**BQL**	**BQL**
Toluene	0.4	100	ND	ND
Chlorobenzene	0.5	100	ND	ND
Ethylbenzene	0.5	100	ND	ND
o-xylene	0.7	150	ND	ND
m &p-xylene	0.7	150	ND	ND
Acetone	0.3	100	ND	ND
2-butanone	0.3	100	ND	ND
4-Methyl 2-pentanone	0.4	100	ND	ND
2-Hexanone	0.4	100	ND	ND

ND = Not detected PR = Present but not calibrated for < = less than > = greater than

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ECD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

BQL=Below Quantitation (detection) Limit
Methane and unknown hydrocarbons were detected in the sample.

Signed: _____ Reviewed by: _____ 1/25

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TETRA·K TESTING

VOLATILE ORGANICS REPORT

Client:		Date:	1/17/91
LMS Engineers		Sample ID:	SG-13
One Blue Hill Plaza		Matrix:	soil gas
Pearl River, NY 10965		Injection volume (ml):	5
Project: Brzezinski Property		Collection Date:	10/29/90
Project Number: 23192		Analysis Date:	10/29/90

RESULTS:

COMPOUND	DETECTION LIMIT mg/cu. m.	DETECTION LIMIT ppb v/v	RESULT mg/cu. m.	RESULT ppb v/v
Methylene Chloride	0.1	20	ND	ND
Vinyl Chloride	0.1	20	ND	ND
1,1-Dichloroethene	0.1	15	ND	ND
1,1-Dichloroethane	0.1	15	ND	ND
cis/trans-1,2-Dichloroethene	0.1	15	ND	ND
Chloroform	0.1	10	ND	ND
1,2-Dichloroethane	0.2	40	ND	ND
1,1,1-Trichloroethane	**0.1**	**15**	**BQL**	**BQL**
Carbon Tetrachloride	0.1	15	ND	ND
Bromodichloromethane	0.1	10	ND	ND
1,2-Dichloropropane	0.1	15	ND	ND
cis-1,3-Dichloropropene	0.1	15	ND	ND
Trichloroethene	**0.1**	**15**	**0.11**	**18**
Benzene	0.3	100	ND	ND
Dibromochloromethane	0.1	10	ND	ND
1,1,2,-Trichloroethane	0.1	10	ND	ND
trans-1,3-Dichloropropene	0.1	15	ND	ND
1,1,2,2-Tetrachloroethane	0.1	15	ND	ND
Tetrachloroethene	0.1	10	ND	ND
Toluene	0.4	100	ND	ND
Chlorobenzene	0.5	100	ND	ND
Ethylbenzene	0.5	100	ND	ND
o-xylene	0.7	150	ND	ND
m &p-xylene	0.7	150	ND	ND
Acetone	0.3	100	ND	ND
2-butanone	0.3	100	ND	ND
4-Methyl 2-pentanone	0.4	100	ND	ND
2-Hexanone	0.4	100	ND	ND

ND = Not detected PR = Present but not calibrated for < = less than > = greater than

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ECD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

BQL=Below Quantitation (detection) Limit
Methane and unknown hydrocarbons were detected in the sample.

Signed: Steph Kelley Reviewed by: KS 1/25

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TETRA·K TESTING

VOLATILE ORGANICS REPORT

Client:		Date:	1/17/91
LMS Engineers		Sample ID:	SG-14
One Blue Hill Plaza		Matrix:	soil gas
Pearl River, NY 10965		Injection volume (ml):	5
Project: Brzezinski Property		Collection Date:	10/29/90
Project Number: 23192		Analysis Date:	10/29/90

RESULTS:

COMPOUND	DETECTION LIMIT mg/cu. m.	DETECTION LIMIT ppb v/v	RESULT mg/cu. m.	RESULT ppb v/v
Methylene Chloride	0.1	20	ND	ND
Vinyl Chloride	0.1	20	ND	ND
1,1-Dichloroethene	0.1	15	ND	ND
1,1-Dichloroethane	0.1	15	ND	ND
cis/trans-1,2-Dichloroethene	0.1	15	ND	ND
Chloroform	0.1	10	ND	ND
1,2-Dichloroethane	0.2	40	ND	ND
1,1,1-Trichloroethane	**0.1**	**15**	**0.14**	**24**
Carbon Tetrachloride	0.1	15	ND	ND
Bromodichloromethane	0.1	10	ND	ND
1,2-Dichloropropane	0.1	15	ND	ND
cis-1,3-Dichloropropene	0.1	15	ND	ND
Trichloroethene	**0.1**	**15**	**0.42**	**72**
Benzene	0.3	100	ND	ND
Dibromochloromethane	0.1	10	ND	ND
1,1,2,-Trichloroethane	0.1	10	ND	ND
trans-1,3-Dichloropropene	0.1	15	ND	ND
1,1,2,2-Tetrachloroethane	0.1	15	ND	ND
Tetrachloroethene	0.1	10	ND	ND
Toluene	0.4	100	ND	ND
Chlorobenzene	0.5	100	ND	ND
Ethylbenzene	0.5	100	ND	ND
o-xylene	0.7	150	ND	ND
m &p-xylene	0.7	150	ND	ND
Acetone	0.3	100	ND	ND
2-butanone	0.3	100	ND	ND
4-Methyl 2-pentanone	0.4	100	ND	ND
2-Hexanone	0.4	100	ND	ND

ND = Not detected PR = Present but not calibrated for < = less than > = greater than

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ECD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

Methane and unknown hydrocarbons were detected in the sample.

Signed: Stephen Kelly Reviewed by: 1/25

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TETRA·K TESTING

VOLATILE ORGANICS REPORT

Client:	Date:	1/17/91
LMS Engineers	Sample ID:	SG-15
One Blue Hill Plaza	Matrix:	soil gas
Pearl River, NY 10965	Injection volume (ml):	5
Project: Brzezinski Property	Collection Date:	10/29/90
Project Number: 23192	Analysis Date:	10/29/90

RESULTS:

COMPOUND	DETECTION LIMIT mg/cu. m.	DETECTION LIMIT ppb v/v	RESULT mg/cu. m.	RESULT ppb v/v
Methylene Chloride	0.1	20	ND	ND
Vinyl Chloride	0.1	20	ND	ND
1,1-Dichloroethene	0.1	15	ND	ND
1,1-Dichloroethane	0.1	15	ND	ND
cis/trans-1,2-Dichloroethene	0.1	15	ND	ND
Chloroform	0.1	10	ND	ND
1,2-Dichloroethane	0.2	40	ND	ND
1,1,1-Trichloroethane	0.1	15	ND	ND
Carbon Tetrachloride	0.1	15	ND	ND
Bromodichloromethane	0.1	10	ND	ND
1,2-Dichloropropane	0.1	15	ND	ND
cis-1,3-Dichloropropene	0.1	15	ND	ND
Trichloroethene	**0.1**	**15**	**BQL**	**BQL**
Benzene	0.3	100	ND	ND
Dibromochloromethane	0.1	10	ND	ND
1,1,2,-Trichloroethane	0.1	10	ND	ND
trans-1,3-Dichloropropene	0.1	15	ND	ND
1,1,2,2-Tetrachloroethane	0.1	15	ND	ND
Tetrachloroethene	0.1	10	ND	ND
Toluene	0.4	100	ND	ND
Chlorobenzene	0.5	100	ND	ND
Ethylbenzene	0.5	100	ND	ND
o-xylene	0.7	150	ND	ND
m &p-xylene	0.7	150	ND	ND
Acetone	0.3	100	ND	ND
2-butanone	0.3	100	ND	ND
4-Methyl 2-pentanone	0.4	100	ND	ND
2-Hexanone	0.4	100	ND	ND

ND = Not detected PR = Present but not calibrated for < = less than > = greater than

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ECD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

BQL=Below Quantitation (detection) Limit
Methane and unknown hydrocarbons were detected in the sample.

Signed: Stephen Kwolek Reviewed by: RES 1/21

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TETRA·K TESTING

VOLATILE ORGANICS REPORT

Client:		Date:	1/17/91
LMS Engineers		Sample ID:	SG-16
One Blue Hill Plaza		Matrix:	soil gas
Pearl River, NY 10965		Injection volume (ml):	5
Project: Brzezinski Property		Collection Date:	10/29/90
Project Number: 23192		Analysis Date:	10/29/90

RESULTS:

COMPOUND	DETECTION LIMIT mg/cu. m.	DETECTION LIMIT ppb v/v	RESULT mg/cu. m.	RESULT ppb v/v
Methylene Chloride	0.1	20	ND	ND
Vinyl Chloride	0.1	20	ND	ND
1,1-Dichloroethene	0.1	15	ND	ND
1,1-Dichloroethane	0.1	15	ND	ND
cis/trans-1,2-Dichloroethene	0.1	15	ND	ND
Chloroform	0.1	10	ND	ND
1,2-Dichloroethane	0.2	40	ND	ND
1,1,1-Trichloroethane	0.1	15	ND	ND
Carbon Tetrachloride	0.1	15	ND	ND
Bromodichloromethane	0.1	10	ND	ND
1,2-Dichloropropane	0.1	15	ND	ND
cis-1,3-Dichloropropene	0.1	15	ND	ND
Trichloroethene	**0.1**	**15**	**0.89**	**150**
Benzene	**0.3**	**100**	**6.8**	**1900**
Dibromochloromethane	0.1	10	ND	ND
1,1,2,-Trichloroethane	0.1	10	ND	ND
trans-1,3-Dichloropropene	0.1	15	ND	ND
1,1,2,2-Tetrachloroethane	0.1	15	ND	ND
Tetrachloroethene	**0.1**	**10**	**BQL**	**BQL**
Toluene	0.4	100	ND	ND
Chlorobenzene	0.5	100	ND	ND
Ethylbenzene	0.5	100	ND	ND
o-xylene	0.7	150	ND	ND
m &p-xylene	0.7	150	ND	ND
Acetone	0.3	100	ND	ND
2-butanone	0.3	100	ND	ND
4-Methyl 2-pentanone	0.4	100	ND	ND
2-Hexanone	0.4	100	ND	ND

ND = Not detected PR = Present but not calibrated for < = less than > = greater than

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ECD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

BQL=Below Quantitation (detection) Limit
Methane and unknown hydrocarbons were detected in the sample.

Signed: Steph Kadley Reviewed by: RS 1/21

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TETRA·K TESTING

VOLATILE ORGANICS REPORT

Client:	Date:	1/17/91
LMS Engineers	Sample ID:	SG-19
One Blue Hill Plaza	Matrix:	soil gas
Pearl River, NY 10965	Injection volume (ml):	5
Project: Brzezinski Property	Collection Date:	10/29/90
Project Number: 23192	Analysis Date:	10/29/90

RESULTS:

COMPOUND	DETECTION LIMIT mg/cu. m.	DETECTION LIMIT ppb v/v	RESULT mg/cu. m.	RESULT ppb v/v
Methylene Chloride	0.1	20	ND	ND
Vinyl Chloride	0.1	20	ND	ND
1,1-Dichloroethene	0.1	15	ND	ND
1,1-Dichloroethane	0.1	15	ND	ND
cis/trans-1,2-Dichloroethene	0.1	15	ND	ND
Chloroform	0.1	10	ND	ND
1,2-Dichloroethane	0.2	40	ND	ND
1,1,1-Trichloroethane	**0.1**	**15**	**BQL**	**BQL**
Carbon Tetrachloride	0.1	15	ND	ND
Bromodichloromethane	0.1	10	ND	ND
1,2-Dichloropropane	0.1	15	ND	ND
cis-1,3-Dichloropropene	0.1	15	ND	ND
Trichloroethene	**0.1**	**15**	**0.11**	**18**
Benzene	0.3	100	ND	ND
Dibromochloromethane	0.1	10	ND	ND
1,1,2,-Trichloroethane	0.1	10	ND	ND
trans-1,3-Dichloropropene	0.1	15	ND	ND
1,1,2,2-Tetrachloroethane	0.1	15	ND	ND
Tetrachloroethene	**0.1**	**10**	**0.3**	**41**
Toluene	0.4	100	ND	ND
Chlorobenzene	0.5	100	ND	ND
Ethylbenzene	0.5	100	ND	ND
o-xylene	0.7	150	ND	ND
m &p-xylene	0.7	150	ND	ND
Acetone	0.3	100	ND	ND
2-butanone	0.3	100	ND	ND
4-Methyl 2-pentanone	0.4	100	ND	ND
2-Hexanone	0.4	100	ND	ND

ND = Not detected PR = Present but not calibrated for < = less than > = greater than

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ECD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

BQL=Below Quantitation (detection) Limit

Signed: Stephen Kadlec Reviewed by: [illegible] 1/21

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TETRA·K TESTING

VOLATILE ORGANICS REPORT

Client:		Date:	1/17/91
LMS Engineers		Sample ID:	SG-20
One Blue Hill Plaza		Matrix:	soil gas
Pearl River, NY 10965		Injection volume (ml):	5
Project: Brzezinski Property		Collection Date:	10/29/90
Project Number: 23192		Analysis Date:	10/29/90

RESULTS:

COMPOUND	DETECTION LIMIT mg/cu. m.	DETECTION LIMIT ppb v/v	RESULT mg/cu. m.	RESULT ppb v/v
Methylene Chloride	0.1	20	ND	ND
Vinyl Chloride	0.1	20	ND	ND
1,1-Dichloroethene	0.1	15	ND	ND
1,1-Dichloroethane	0.1	15	ND	ND
cis/trans-1,2-Dichloroethene	0.1	15	ND	ND
Chloroform	**0.1**	**10**	**0.56**	**110**
1,2-Dichloroethane	0.2	40	ND	ND
1,1,1-Trichloroethane	**0.1**	**15**	**BQL**	**BQL**
Carbon Tetrachloride	0.1	15	ND	ND
Bromodichloromethane	0.1	10	ND	ND
1,2-Dichloropropane	0.1	15	ND	ND
cis-1,3-Dichloropropene	0.1	15	ND	ND
Trichloroethene	**0.1**	**15**	**BQL**	**BQL**
Benzene	0.3	100	ND	ND
Dibromochloromethane	0.1	10	ND	ND
1,1,2,-Trichloroethane	0.1	10	ND	ND
trans-1,3-Dichloropropene	0.1	15	ND	ND
1,1,2,2-Tetrachloroethane	0.1	15	ND	ND
Tetrachloroethene	**0.1**	**10**	**0.13**	**18**
Toluene	0.4	100	ND	ND
Chlorobenzene	0.5	100	ND	ND
Ethylbenzene	0.5	100	ND	ND
o-xylene	0.7	150	ND	ND
m &p-xylene	0.7	150	ND	ND
Acetone	0.3	100	ND	ND
2-butanone	0.3	100	ND	ND
4-Methyl 2-pentanone	0.4	100	ND	ND
2-Hexanone	0.4	100	ND	ND

ND = Not detected PR = Present but not calibrated for < = less than > = greater than

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ECD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

BQL=Below Quantitation (detection) Limit
Methane and unknown hydrocarbons were detected in the sample.

Signed: [signature] Reviewed by: [signature] 1/25

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TETRA·K TESTING

VOLATILE ORGANICS REPORT

Client:		Date:	1/17/91
LMS Engineers		Sample ID:	SG-21
One Blue Hill Plaza		Matrix:	soil gas
Pearl River, NY 10965		Injection volume (ml):	5
Project: Brzezinski Property		Collection Date:	10/29/90
Project Number: 23192		Analysis Date:	10/29/90

RESULTS:

COMPOUND	DETECTION LIMIT mg/cu. m.	DETECTION LIMIT ppb v/v	RESULT mg/cu. m.	RESULT ppb v/v
Methylene Chloride	0.1	20	ND	ND
Vinyl Chloride	0.1	20	ND	ND
1,1-Dichloroethene	0.1	15	ND	ND
1,1-Dichloroethane	0.1	15	ND	ND
cis/trans-1,2-Dichloroethene	0.1	15	ND	ND
Chloroform	0.1	10	ND	ND
1,2-Dichloroethane	0.2	40	ND	ND
1,1,1-Trichloroethane	0.1	15	ND	ND
Carbon Tetrachloride	0.1	15	ND	ND
Bromodichloromethane	0.1	10	ND	ND
1,2-Dichloropropane	0.1	15	ND	ND
cis-1,3-Dichloropropene	0.1	15	ND	ND
Trichloroethene	**0.1**	**15**	**0.18**	**31**
Benzene	0.3	100	ND	ND
Dibromochloromethane	0.1	10	ND	ND
1,1,2,-Trichloroethane	0.1	10	ND	ND
trans-1,3-Dichloropropene	0.1	15	ND	ND
1,1,2,2-Tetrachloroethane	0.1	15	ND	ND
Tetrachloroethene	**0.1**	**10**	**0.2**	**27**
Toluene	0.4	100	ND	ND
Chlorobenzene	0.5	100	ND	ND
Ethylbenzene	0.5	100	ND	ND
o-xylene	0.7	150	ND	ND
m &p-xylene	0.7	150	ND	ND
Acetone	0.3	100	ND	ND
2-butanone	0.3	100	ND	ND
4-Methyl 2-pentanone	0.4	100	ND	ND
2-Hexanone	0.4	100	ND	ND

ND = Not detected PR = Present but not calibrated for < = less than > = greater than

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ECD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

Methane and unknown hydrocarbons were detected in the sample.

Signed: Steph Kwallyn Reviewed by: KES 1/25

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TETRA·K TESTING

VOLATILE ORGANICS REPORT

Client:	Date:	1/17/91
LMS Engineers	Sample ID:	SG-22
One Blue Hill Plaza	Matrix:	soil gas
Pearl River, NY 10965	Injection volume (ml):	5
Project: Brzezinski Property	Collection Date:	10/29/90
Project Number: 23192	Analysis Date:	10/29/90

RESULTS:

COMPOUND	DETECTION LIMIT mg/cu. m.	DETECTION LIMIT ppb v/v	RESULT mg/cu. m.	RESULT ppb v/v
Methylene Chloride	0.1	20	ND	ND
Vinyl Chloride	0.1	20	ND	ND
1,1-Dichloroethene	0.1	15	ND	ND
1,1-Dichloroethane	0.1	15	ND	ND
cis/trans-1,2-Dichloroethene	0.1	15	ND	ND
Chloroform	0.1	10	ND	ND
1,2-Dichloroethane	0.2	40	ND	ND
1,1,1-Trichloroethane	0.1	15	ND	ND
Carbon Tetrachloride	0.1	15	ND	ND
Bromodichloromethane	0.1	10	ND	ND
1,2-Dichloropropane	0.1	15	ND	ND
cis-1,3-Dichloropropene	0.1	15	ND	ND
Trichloroethene	**0.1**	**15**	**BQL**	**BQL**
Benzene	0.3	100	ND	ND
Dibromochloromethane	0.1	10	ND	ND
1,1,2,-Trichloroethane	0.1	10	ND	ND
trans-1,3-Dichloropropene	0.1	15	ND	ND
1,1,2,2-Tetrachloroethane	0.1	15	ND	ND
Tetrachloroethene	0.1	10	ND	ND
Toluene	0.4	100	ND	ND
Chlorobenzene	0.5	100	ND	ND
Ethylbenzene	0.5	100	ND	ND
o-xylene	0.7	150	ND	ND
m &p-xylene	0.7	150	ND	ND
Acetone	0.3	100	ND	ND
2-butanone	0.3	100	ND	ND
4-Methyl 2-pentanone	0.4	100	ND	ND
2-Hexanone	0.4	100	ND	ND

ND = Not detected PR = Present but not calibrated for < = less than > = greater than

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ECD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

BQL=Below Quantitation (detection) Limit
Methane and unknown hydrocarbons were detected in the sample.

Signed: Stephen Kneller Reviewed by: [illegible] 1/21

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TETRA·K TESTING

VOLATILE ORGANICS REPORT

Client:		Date:	1/17/91
LMS Engineers		Sample ID:	SG-23
One Blue Hill Plaza		Matrix:	soil gas
Pearl River, NY 10965		Injection volume (ml):	5
Project: Brzezinski Property		Collection Date:	10/29/90
Project Number: 23192		Analysis Date:	10/29/90

RESULTS:

COMPOUND	DETECTION LIMIT mg/cu. m.	DETECTION LIMIT ppb v/v	RESULT mg/cu. m.	RESULT ppb v/v
Methylene Chloride	0.1	20	ND	ND
Vinyl Chloride	0.1	20	ND	ND
1,1-Dichloroethene	0.1	15	ND	ND
1,1-Dichloroethane	0.1	15	ND	ND
cis/trans-1,2-Dichloroethene	0.1	15	ND	ND
Chloroform	**0.1**	**10**	**0.11**	**21**
1,2-Dichloroethane	0.2	40	ND	ND
1,1,1-Trichloroethane	0.1	15	ND	ND
Carbon Tetrachloride	0.1	15	ND	ND
Bromodichloromethane	0.1	10	ND	ND
1,2-Dichloropropane	0.1	15	ND	ND
cis-1,3-Dichloropropene	0.1	15	ND	ND
Trichloroethene	**0.1**	**15**	**0.1**	**17**
Benzene	0.3	100	ND	ND
Dibromochloromethane	0.1	10	ND	ND
1,1,2,-Trichloroethane	0.1	10	ND	ND
trans-1,3-Dichloropropene	0.1	15	ND	ND
1,1,2,2-Tetrachloroethane	0.1	15	ND	ND
Tetrachloroethene	**0.1**	**10**	**0.27**	**36**
Toluene	0.4	100	ND	ND
Chlorobenzene	0.5	100	ND	ND
Ethylbenzene	0.5	100	ND	ND
o-xylene	0.7	150	ND	ND
m &p-xylene	0.7	150	ND	ND
Acetone	0.3	100	ND	ND
2-butanone	0.3	100	ND	ND
4-Methyl 2-pentanone	0.4	100	ND	ND
2-Hexanone	0.4	100	ND	ND

ND = Not detected PR = Present but not calibrated for < = less than > = greater than

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ECD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

Methane and unknown hydrocarbons were detected in the sample.

Signed: Stephen Kneller Reviewed by: [illegible] 1/21

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TETRA·K TESTING

VOLATILE ORGANICS REPORT

Client:		Date:	1/17/91
LMS Engineers		Sample ID:	SG-25
One Blue Hill Plaza		Matrix:	soil gas
Pearl River, NY 10965		Injection volume (ml):	5
Project: Brzezinski Property		Collection Date:	10/29/90
Project Number: 23192		Analysis Date:	10/29/90

RESULTS:

COMPOUND	DETECTION LIMIT mg/cu. m.	DETECTION LIMIT ppb v/v	RESULT mg/cu. m.	RESULT ppb v/v
Methylene Chloride	0.1	20	ND	ND
Vinyl Chloride	0.1	20	ND	ND
1,1-Dichloroethene	0.1	15	ND	ND
1,1-Dichloroethane	0.1	15	ND	ND
cis/trans-1,2-Dichloroethene	0.1	15	ND	ND
Chloroform	0.1	10	ND	ND
1,2-Dichloroethane	0.2	40	ND	ND
1,1,1-Trichloroethane	**0.1**	**15**	**0.29**	**49**
Carbon Tetrachloride	0.1	15	ND	ND
Bromodichloromethane	0.1	10	ND	ND
1,2-Dichloropropane	0.1	15	ND	ND
cis-1,3-Dichloropropene	0.1	15	ND	ND
Trichloroethene	**0.1**	**15**	**0.1**	**18**
Benzene	0.3	100	ND	ND
Dibromochloromethane	0.1	10	ND	ND
1,1,2,-Trichloroethane	0.1	10	ND	ND
trans-1,3-Dichloropropene	0.1	15	ND	ND
1,1,2,2-Tetrachloroethane	0.1	15	ND	ND
Tetrachloroethene	**0.1**	**10**	**0.19**	**25**
Toluene	0.4	100	ND	ND
Chlorobenzene	0.5	100	ND	ND
Ethylbenzene	0.5	100	ND	ND
o-xylene	0.7	150	ND	ND
m &p-xylene	0.7	150	ND	ND
Acetone	0.3	100	ND	ND
2-butanone	0.3	100	ND	ND
4-Methyl 2-pentanone	0.4	100	ND	ND
2-Hexanone	0.4	100	ND	ND

ND = Not detected PR = Present but not calibrated for < = less than > = greater than

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ECD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

Signed: Stephen Kuelling Reviewed by: [illegible] 1/25

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TETRA·K TESTING

VOLATILE ORGANICS REPORT

Client:		Date:	1/17/91
LMS Engineers		Sample ID:	SG-27
One Blue Hill Plaza		Matrix:	soil gas
Pearl River, NY 10965		Injection volume (ml):	5
Project: Brzezinski Property		Collection Date:	10/30/90
Project Number: 23192		Analysis Date:	10/30/90

RESULTS:

COMPOUND	DETECTION LIMIT mg/cu. m.	DETECTION LIMIT ppb v/v	RESULT mg/cu. m.	RESULT ppb v/v
Methylene Chloride	0.1	20	ND	ND
Vinyl Chloride	0.1	20	ND	ND
1,1-Dichloroethene	0.1	15	ND	ND
1,1-Dichloroethane	0.1	15	ND	ND
cis/trans-1,2-Dichloroethene	0.1	15	ND	ND
Chloroform	0.1	10	ND	ND
1,2-Dichloroethane	0.2	40	ND	ND
1,1,1-Trichloroethane	0.1	15	ND	ND
Carbon Tetrachloride	0.1	15	ND	ND
Bromodichloromethane	0.1	10	ND	ND
1,2-Dichloropropane	0.1	15	ND	ND
cis-1,3-Dichloropropene	0.1	15	ND	ND
Trichloroethene	0.1	15	ND	ND
Benzene	0.3	100	ND	ND
Dibromochloromethane	0.1	10	ND	ND
1,1,2,-Trichloroethane	0.1	10	ND	ND
trans-1,3-Dichloropropene	0.1	15	ND	ND
1,1,2,2-Tetrachloroethane	0.1	15	ND	ND
Tetrachloroethene	0.1	10	ND	ND
Toluene	0.4	100	ND	ND
Chlorobenzene	0.5	100	ND	ND
Ethylbenzene	0.5	100	ND	ND
o-xylene	0.7	150	ND	ND
m &p-xylene	0.7	150	ND	ND
Acetone	0.3	100	ND	ND
2-butanone	0.3	100	ND	ND
4-Methyl 2-pentanone	0.4	100	ND	ND
2-Hexanone	0.4	100	ND	ND

ND = Not detected PR = Present but not calibrated for < = less than > = greater than

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ECD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

Signed: Steph Kelley Reviewed by: KSR 1/21

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TETRA·K TESTING

VOLATILE ORGANICS REPORT

Client:		Date:	1/17/91
LMS Engineers		Sample ID:	SG-28
One Blue Hill Plaza		Matrix:	soil gas
Pearl River, NY 10965		Injection volume (ml):	5
Project: Brzezinski Property		Collection Date:	10/30/90
Project Number: 23192		Analysis Date:	10/30/90

RESULTS:

COMPOUND	DETECTION LIMIT mg/cu. m.	DETECTION LIMIT ppb v/v	RESULT mg/cu. m.	RESULT ppb v/v
Methylene Chloride	0.1	20	ND	ND
Vinyl Chloride	0.1	20	ND	ND
1,1-Dichloroethene	0.1	15	ND	ND
1,1-Dichloroethane	0.1	15	ND	ND
cis/trans-1,2-Dichloroethene	0.1	15	ND	ND
Chloroform	0.1	10	ND	ND
1,2-Dichloroethane	0.2	40	ND	ND
1,1,1-Trichloroethane	0.1	15	ND	ND
Carbon Tetrachloride	0.1	15	ND	ND
Bromodichloromethane	0.1	10	ND	ND
1,2-Dichloropropane	0.1	15	ND	ND
cis-1,3-Dichloropropene	0.1	15	ND	ND
Trichloroethene	**0.1**	**15**	**BQL**	**BQL**
Benzene	0.3	100	ND	ND
Dibromochloromethane	0.1	10	ND	ND
1,1,2,-Trichloroethane	0.1	10	ND	ND
trans-1,3-Dichloropropene	0.1	15	ND	ND
1,1,2,2-Tetrachloroethane	0.1	15	ND	ND
Tetrachloroethene	0.1	10	ND	ND
Toluene	0.4	100	ND	ND
Chlorobenzene	0.5	100	ND	ND
Ethylbenzene	0.5	100	ND	ND
o-xylene	0.7	150	ND	ND
m &p-xylene	0.7	150	ND	ND
Acetone	0.3	100	ND	ND
2-butanone	0.3	100	ND	ND
4-Methyl 2-pentanone	0.4	100	ND	ND
2-Hexanone	0.4	100	ND	ND

ND = Not detected PR = Present but not calibrated for < = less than > = greater than

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ECD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

BQL=Below Quantitation (detection) Limit
Methane and unknown hydrocarbons were detected in the sample.

Signed: Stephen Kwolek Reviewed by: [illegible] 1/25

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TETRA·K TESTING

VOLATILE ORGANICS REPORT

Client:		Date:	1/17/91
LMS Engineers		Sample ID:	SG-29
One Blue Hill Plaza		Matrix:	soil gas
Pearl River, NY 10965		Injection volume (ml):	5
Project: Brzezinski Property		Collection Date:	10/30/90
Project Number: 23192		Analysis Date:	10/30/90

RESULTS:

COMPOUND	DETECTION LIMIT mg/cu. m.	DETECTION LIMIT ppb v/v	RESULT mg/cu. m.	RESULT ppb v/v
Methylene Chloride	0.1	20	ND	ND
Vinyl Chloride	0.1	20	ND	ND
1,1-Dichloroethene	0.1	15	ND	ND
1,1-Dichloroethane	0.1	15	ND	ND
cis/trans-1,2-Dichloroethene	0.1	15	ND	ND
Chloroform	0.1	10	ND	ND
1,2-Dichloroethane	0.2	40	ND	ND
1,1,1-Trichloroethane	0.1	15	ND	ND
Carbon Tetrachloride	0.1	15	ND	ND
Bromodichloromethane	0.1	10	ND	ND
1,2-Dichloropropane	0.1	15	ND	ND
cis-1,3-Dichloropropene	0.1	15	ND	ND
Trichloroethene	**0.1**	**15**	**0.14**	**23**
Benzene	**0.3**	**100**	**2.3**	**670**
Dibromochloromethane	0.1	10	ND	ND
1,1,2,-Trichloroethane	0.1	10	ND	ND
trans-1,3-Dichloropropene	0.1	15	ND	ND
1,1,2,2-Tetrachloroethane	0.1	15	ND	ND
Tetrachloroethene	0.1	10	ND	ND
Toluene	0.4	100	ND	ND
Chlorobenzene	0.5	100	ND	ND
Ethylbenzene	0.5	100	ND	ND
o-xylene	0.7	150	ND	ND
m &p-xylene	0.7	150	ND	ND
Acetone	0.3	100	ND	ND
2-butanone	0.3	100	ND	ND
4-Methyl 2-pentanone	0.4	100	ND	ND
2-Hexanone	0.4	100	ND	ND

ND = Not detected PR = Present but not calibrated for < = less than > = greater than

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ECD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

Methane and unknown hydrocarbons were detected in the sample.

Signed: Reviewed by:

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TETRA·K TESTING

VOLATILE ORGANICS REPORT

Client:	Date:	1/17/91
LMS Engineers	Sample ID:	SG-30
One Blue Hill Plaza	Matrix:	soil gas
Pearl River, NY 10965	Injection volume (ml):	5
Project: Brzezinski Property	Collection Date:	10/30/90
Project Number: 23192	Analysis Date:	10/30/90

RESULTS:

COMPOUND	DETECTION LIMIT mg/cu. m.	DETECTION LIMIT ppb v/v	RESULT mg/cu. m.	RESULT ppb v/v
Methylene Chloride	0.1	20	ND	ND
Vinyl Chloride	0.1	20	ND	ND
1,1-Dichloroethene	0.1	15	ND	ND
1,1-Dichloroethane	0.1	15	ND	ND
cis/trans-1,2-Dichloroethene	0.1	15	ND	ND
Chloroform	0.1	10	ND	ND
1,2-Dichloroethane	0.2	40	ND	ND
1,1,1-Trichloroethane	0.1	15	ND	ND
Carbon Tetrachloride	0.1	15	ND	ND
Bromodichloromethane	0.1	10	ND	ND
1,2-Dichloropropane	0.1	15	ND	ND
cis-1,3-Dichloropropene	0.1	15	ND	ND
Trichloroethene	**0.1**	**15**	**BQL**	**BQL**
Benzene	0.3	100	ND	ND
Dibromochloromethane	0.1	10	ND	ND
1,1,2,-Trichloroethane	0.1	10	ND	ND
trans-1,3-Dichloropropene	0.1	15	ND	ND
1,1,2,2-Tetrachloroethane	0.1	15	ND	ND
Tetrachloroethene	0.1	10	ND	ND
Toluene	0.4	100	ND	ND
Chlorobenzene	0.5	100	ND	ND
Ethylbenzene	0.5	100	ND	ND
o-xylene	0.7	150	ND	ND
m &p-xylene	0.7	150	ND	ND
Acetone	0.3	100	ND	ND
2-butanone	0.3	100	ND	ND
4-Methyl 2-pentanone	0.4	100	ND	ND
2-Hexanone	0.4	100	ND	ND

ND = Not detected PR = Present but not calibrated for < = less than > = greater than

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ECD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

BQL=Below Quantitation (detection) Limit

Signed: Steph Kadlec Reviewed by: JSB 1/25

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TETRA·K TESTING

VOLATILE ORGANICS REPORT

Client:		Date:	1/17/91
LMS Engineers		Sample ID:	SG-31
One Blue Hill Plaza		Matrix:	soil gas
Pearl River, NY 10965		Injection volume (ml):	5
Project: Brzezinski Property		Collection Date:	10/30/90
Project Number: 23192		Analysis Date:	10/30/90

RESULTS:

COMPOUND	DETECTION LIMIT mg/cu. m.	DETECTION LIMIT ppb v/v	RESULT mg/cu. m.	RESULT ppb v/v
Methylene Chloride	0.1	20	ND	ND
Vinyl Chloride	0.1	20	ND	ND
1,1-Dichloroethene	0.1	15	ND	ND
1,1-Dichloroethane	0.1	15	ND	ND
cis/trans-1,2-Dichloroethene	0.1	15	ND	ND
Chloroform	0.1	10	ND	ND
1,2-Dichloroethane	0.2	40	ND	ND
1,1,1-Trichloroethane	0.1	15	ND	ND
Carbon Tetrachloride	0.1	15	ND	ND
Bromodichloromethane	0.1	10	ND	ND
1,2-Dichloropropane	0.1	15	ND	ND
cis-1,3-Dichloropropene	0.1	15	ND	ND
Trichloroethene	**0.1**	**15**	**0.12**	**21**
Benzene	**0.3**	**100**	**0.41**	**120**
Dibromochloromethane	0.1	10	ND	ND
1,1,2,-Trichloroethane	0.1	10	ND	ND
trans-1,3-Dichloropropene	0.1	15	ND	ND
1,1,2,2-Tetrachloroethane	0.1	15	ND	ND
Tetrachloroethene	0.1	10	ND	ND
Toluene	0.4	100	ND	ND
Chlorobenzene	0.5	100	ND	ND
Ethylbenzene	0.5	100	ND	ND
o-xylene	0.7	150	ND	ND
m &p-xylene	0.7	150	ND	ND
Acetone	0.3	100	ND	ND
2-butanone	0.3	100	ND	ND
4-Methyl 2-pentanone	0.4	100	ND	ND
2-Hexanone	0.4	100	ND	ND

ND = Not detected PR = Present but not calibrated for < = less than > = greater than

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ECD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

Methane and unknown hydrocarbons were detected in the sample.

Signed: Stephen Kneller Reviewed by: 1/28/91

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TETRA·K TESTING

VOLATILE ORGANICS REPORT

Client:		Date:	1/17/91
LMS Engineers		Sample ID:	SG-32
One Blue Hill Plaza		Matrix:	soil gas
Pearl River, NY 10965		Injection volume (ml):	5
Project: Brzezinski Property		Collection Date:	10/30/90
Project Number: 23192		Analysis Date:	10/30/90

RESULTS:

COMPOUND	DETECTION LIMIT mg/cu. m.	DETECTION LIMIT ppb v/v	RESULT mg/cu. m.	RESULT ppb v/v
Methylene Chloride	0.1	20	ND	ND
Vinyl Chloride	0.1	20	ND	ND
1,1-Dichloroethene	0.1	15	ND	ND
1,1-Dichloroethane	0.1	15	ND	ND
cis/trans-1,2-Dichloroethene	0.1	15	ND	ND
Chloroform	**0.1**	**10**	**0.1**	**12**
1,2-Dichloroethane	0.2	40	ND	ND
1,1,1-Trichloroethane	**0.1**	**15**	**0.55**	**93**
Carbon Tetrachloride	**0.1**	**15**	**BQL**	**BQL**
Bromodichloromethane	0.1	10	ND	ND
1,2-Dichloropropane	0.1	15	ND	ND
cis-1,3-Dichloropropene	0.1	15	ND	ND
Trichloroethene	**0.1**	**15**	**0.39**	**66**
Benzene	0.3	100	ND	ND
Dibromochloromethane	0.1	10	ND	ND
1,1,2,-Trichloroethane	0.1	10	ND	ND
trans-1,3-Dichloropropene	0.1	15	ND	ND
1,1,2,2-Tetrachloroethane	0.1	15	ND	ND
Tetrachloroethene	**0.1**	**10**	**BQL**	**BQL**
Toluene	0.4	100	ND	ND
Chlorobenzene	0.5	100	ND	ND
Ethylbenzene	0.5	100	ND	ND
o-xylene	0.7	150	ND	ND
m &p-xylene	0.7	150	ND	ND
Acetone	0.3	100	ND	ND
2-butanone	0.3	100	ND	ND
4-Methyl 2-pentanone	0.4	100	ND	ND
2-Hexanone	0.4	100	ND	ND

ND = Not detected PR = Present but not calibrated for < = less than > = greater than

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ECD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

BQL=Below Quantitation (detection) Limit
Methane and unknown hydrocarbons were detected in the sample.

Signed: Stephen Kelly Reviewed by: [illegible] 1/28

Westfield Executive Park
53 Southampton Road
Westfield, MA 01085
TEL. 413-562-9193
FAX. 413-562-5317

TETRA·K TESTING

VOLATILE ORGANICS REPORT

Client:		Date:	1/17/91
LMS Engineers		Sample ID:	SG-33
One Blue Hill Plaza		Matrix:	soil gas
Pearl River, NY 10965		Injection volume (ml):	5
Project: Brzezinski Property		Collection Date:	10/30/90
Project Number: 23192		Analysis Date:	10/30/90

RESULTS:

COMPOUND	DETECTION LIMIT mg/cu. m.	DETECTION LIMIT ppb v/v	RESULT mg/cu. m.	RESULT ppb v/v
Methylene Chloride	0.1	20	ND	ND
Vinyl Chloride	0.1	20	ND	ND
1,1-Dichloroethene	0.1	15	ND	ND
1,1-Dichloroethane	0.1	15	ND	ND
cis/trans-1,2-Dichloroethene	0.1	15	ND	ND
Chloroform	0.1	10	ND	ND
1,2-Dichloroethane	0.2	40	ND	ND
1,1,1-Trichloroethane	0.1	15	ND	ND
Carbon Tetrachloride	0.1	15	ND	ND
Bromodichloromethane	0.1	10	ND	ND
1,2-Dichloropropane	0.1	15	ND	ND
cis-1,3-Dichloropropene	0.1	15	ND	ND
Trichloroethene	**0.1**	**15**	**BQL**	**BQL**
Benzene	**0.3**	**100**	**0.47**	**130**
Dibromochloromethane	0.1	10	ND	ND
1,1,2,-Trichloroethane	0.1	10	ND	ND
trans-1,3-Dichloropropene	0.1	15	ND	ND
1,1,2,2-Tetrachloroethane	0.1	15	ND	ND
Tetrachloroethene	0.1	10	ND	ND
Toluene	0.4	100	ND	ND
Chlorobenzene	0.5	100	ND	ND
Ethylbenzene	0.5	100	ND	ND
o-xylene	0.7	150	ND	ND
m &p-xylene	0.7	150	ND	ND
Acetone	0.3	100	ND	ND
2-butanone	0.3	100	ND	ND
4-Methyl 2-pentanone	0.4	100	ND	ND
2-Hexanone	0.4	100	ND	ND

ND = Not detected PR = Present but not calibrated for < = less than > = greater than

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ECD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

BQL=Below Quantitation (detection) Limit
Methane and unknown hydrocarbons were detected in the sample.

Signed: Steph Goodhue Reviewed by: KSB 1/25

Westfield Executive Park
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TETRA·K TESTING

VOLATILE ORGANICS REPORT

Client:		Date:	1/17/91
LMS Engineers		Sample ID:	SG-34
One Blue Hill Plaza		Matrix:	soil gas
Pearl River, NY 10965		Injection volume (ml):	5
Project: Brzezinski Property		Collection Date:	10/30/90
Project Number: 23192		Analysis Date:	10/30/90

RESULTS:

COMPOUND	DETECTION LIMIT mg/cu. m.	DETECTION LIMIT ppb v/v	RESULT mg/cu. m.	RESULT ppb v/v
Methylene Chloride	0.1	20	ND	ND
Vinyl Chloride	0.1	20	ND	ND
1,1-Dichloroethene	0.1	15	ND	ND
1,1-Dichloroethane	0.1	15	ND	ND
cis/trans-1,2-Dichloroethene	0.1	15	ND	ND
Chloroform	0.1	10	ND	ND
1,2-Dichloroethane	0.2	40	ND	ND
1,1,1-Trichloroethane	0.1	15	ND	ND
Carbon Tetrachloride	**0.1**	**15**	**BQL**	**BQL**
Bromodichloromethane	0.1	10	ND	ND
1,2-Dichloropropane	0.1	15	ND	ND
cis-1,3-Dichloropropene	0.1	15	ND	ND
Trichloroethene	**0.1**	**15**	**0.11**	**19**
Benzene	0.3	100	ND	ND
Dibromochloromethane	0.1	10	ND	ND
1,1,2,-Trichloroethane	0.1	10	ND	ND
trans-1,3-Dichloropropene	0.1	15	ND	ND
1,1,2,2-Tetrachloroethane	0.1	15	ND	ND
Tetrachloroethene	**0.1**	**10**	**0.16**	**22**
Toluene	0.4	100	ND	ND
Chlorobenzene	0.5	100	ND	ND
Ethylbenzene	0.5	100	ND	ND
o-xylene	0.7	150	ND	ND
m &p-xylene	0.7	150	ND	ND
Acetone	0.3	100	ND	ND
2-butanone	0.3	100	ND	ND
4-Methyl 2-pentanone	0.4	100	ND	ND
2-Hexanone	0.4	100	ND	ND

ND = Not detected PR = Present but not calibrated for < = less than > = greater than

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ECD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

BQL=Below Quantitation (detection) Limit

Signed: Stephen Kelly Reviewed by: 1/21

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TETRA·K TESTING

VOLATILE ORGANICS REPORT

Client:		Date:	1/17/91
LMS Engineers		Sample ID:	SG-36
One Blue Hill Plaza		Matrix:	soil gas
Pearl River, NY 10965		Injection volume (ml):	5
Project: Brzezinski Property		Collection Date:	10/30/90
Project Number: 23192		Analysis Date:	10/30/90

RESULTS:

COMPOUND	DETECTION LIMIT mg/cu. m.	DETECTION LIMIT ppb v/v	RESULT mg/cu. m.	RESULT ppb v/v
Methylene Chloride	0.1	20	ND	ND
Vinyl Chloride	0.1	20	ND	ND
1,1-Dichloroethene	0.1	15	ND	ND
1,1-Dichloroethane	0.1	15	ND	ND
cis/trans-1,2-Dichloroethene	0.1	15	ND	ND
Chloroform	**0.1**	**10**	**BQL**	**BQL**
1,2-Dichloroethane	0.2	40	ND	ND
1,1,1-Trichloroethane	0.1	15	ND	ND
Carbon Tetrachloride	**0.1**	**15**	**BQL**	**BQL**
Bromodichloromethane	0.1	10	ND	ND
1,2-Dichloropropane	0.1	15	ND	ND
cis-1,3-Dichloropropene	0.1	15	ND	ND
Trichloroethene	**0.1**	**15**	**0.1**	**16**
Benzene	**0.3**	**100**	**0.23**	**66**
Dibromochloromethane	0.1	10	ND	ND
1,1,2,-Trichloroethane	0.1	10	ND	ND
trans-1,3-Dichloropropene	0.1	15	ND	ND
1,1,2,2-Tetrachloroethane	0.1	15	ND	ND
Tetrachloroethene	**0.1**	**10**	**BQL**	**BQL**
Toluene	0.4	100	ND	ND
Chlorobenzene	0.5	100	ND	ND
Ethylbenzene	0.5	100	ND	ND
o-xylene	0.7	150	ND	ND
m &p-xylene	0.7	150	ND	ND
Acetone	0.3	100	ND	ND
2-butanone	0.3	100	ND	ND
4-Methyl 2-pentanone	0.4	100	ND	ND
2-Hexanone	0.4	100	ND	ND

ND = Not detected PR = Present but not calibrated for < = less than > = greater than

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ECD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

BQL=Below Quantitation (detection) Limit

Signed: Stephen Kadlec Reviewed by: JSS 1/25

Westfield Executive Park
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TETRA·K TESTING

VOLATILE ORGANICS REPORT

Client:	Date:	1/17/91
LMS Engineers	Sample ID:	SG-37
One Blue Hill Plaza	Matrix:	soil gas
Pearl River, NY 10965	Injection volume (ml):	5
Project: Brzezinski Property	Collection Date:	10/31/90
Project Number: 23192	Analysis Date:	10/31/90

RESULTS:

COMPOUND	DETECTION LIMIT mg/cu. m.	DETECTION LIMIT ppb v/v	RESULT mg/cu. m.	RESULT ppb v/v
Methylene Chloride	0.1	20	ND	ND
Vinyl Chloride	0.1	20	ND	ND
1,1-Dichloroethene	0.1	15	ND	ND
1,1-Dichloroethane	0.1	15	ND	ND
cis/trans-1,2-Dichloroethene	0.1	15	ND	ND
Chloroform	0.1	10	ND	ND
1,2-Dichloroethane	0.2	40	ND	ND
1,1,1-Trichloroethane	**0.1**	**15**	**BQL**	**BQL**
Carbon Tetrachloride	**0.1**	**15**	**BQL**	**BQL**
Bromodichloromethane	0.1	10	ND	ND
1,2-Dichloropropane	0.1	15	ND	ND
cis-1,3-Dichloropropene	0.1	15	ND	ND
Trichloroethene	**0.1**	**15**	**0.17**	**29**
Benzene	0.3	100	ND	ND
Dibromochloromethane	0.1	10	ND	ND
1,1,2,-Trichloroethane	0.1	10	ND	ND
trans-1,3-Dichloropropene	0.1	15	ND	ND
1,1,2,2-Tetrachloroethane	0.1	15	ND	ND
Tetrachloroethene	0.1	10	ND	ND
Toluene	0.4	100	ND	ND
Chlorobenzene	0.5	100	ND	ND
Ethylbenzene	0.5	100	ND	ND
o-xylene	0.7	150	ND	ND
m &p-xylene	0.7	150	ND	ND
Acetone	0.3	100	ND	ND
2-butanone	0.3	100	ND	ND
4-Methyl 2-pentanone	0.4	100	ND	ND
2-Hexanone	0.4	100	ND	ND

ND = Not detected PR = Present but not calibrated for < = less than > = greater than

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ECD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

BQL=Below Quantitation (detection) Limit
Methane and unknown hydrocarbons were detected in the sample.

Signed: Stephen Kendall

Reviewed by: KSS 1/25

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TETRA·K TESTING

VOLATILE ORGANICS REPORT

Client:		Date:	1/17/91
LMS Engineers		Sample ID:	SG-38
One Blue Hill Plaza		Matrix:	soil gas
Pearl River, NY 10965		Injection volume (ml):	5
Project: Brzezinski Property		Collection Date:	10/31/90
Project Number: 23192		Analysis Date:	10/31/90

RESULTS:

COMPOUND	DETECTION LIMIT mg/cu. m.	DETECTION LIMIT ppb v/v	RESULT mg/cu. m.	RESULT ppb v/v
Methylene Chloride	0.1	20	ND	ND
Vinyl Chloride	0.1	20	ND	ND
1,1-Dichloroethene	0.1	15	ND	ND
1,1-Dichloroethane	0.1	15	ND	ND
cis/trans-1,2-Dichloroethene	0.1	15	ND	ND
Chloroform	0.1	10	ND	ND
1,2-Dichloroethane	0.2	40	ND	ND
1,1,1-Trichloroethane	**0.1**	**15**	**BQL**	**BQL**
Carbon Tetrachloride	**0.1**	**15**	**BQL**	**BQL**
Bromodichloromethane	0.1	10	ND	ND
1,2-Dichloropropane	0.1	15	ND	ND
cis-1,3-Dichloropropene	0.1	15	ND	ND
Trichloroethene	**0.1**	**15**	**0.38**	**64**
Benzene	0.3	100	ND	ND
Dibromochloromethane	0.1	10	ND	ND
1,1,2,-Trichloroethane	0.1	10	ND	ND
trans-1,3-Dichloropropene	0.1	15	ND	ND
1,1,2,2-Tetrachloroethane	0.1	15	ND	ND
Tetrachloroethene	**0.1**	**10**	**0.23**	**32**
Toluene	0.4	100	ND	ND
Chlorobenzene	0.5	100	ND	ND
Ethylbenzene	0.5	100	ND	ND
o-xylene	0.7	150	ND	ND
m &p-xylene	0.7	150	ND	ND
Acetone	0.3	100	ND	ND
2-butanone	0.3	100	ND	ND
4-Methyl 2-pentanone	0.4	100	ND	ND
2-Hexanone	0.4	100	ND	ND

ND = Not detected PR = Present but not calibrated for < = less than > = greater than

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ECD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

BQL=Below Quantitation (detection) Limit
Methane and unknown hydrocarbons were detected in the sample.

Signed: Steph Kyally Reviewed by: KSB 1/25

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Westfield, MA 01085
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TETRA·K TESTING

VOLATILE ORGANICS REPORT

Client:		Date:	1/17/91
LMS Engineers		Sample ID:	SG-40
One Blue Hill Plaza		Matrix:	soil gas
Pearl River, NY 10965		Injection volume (ml):	5
Project: Brzezinski Property		Collection Date:	10/31/90
Project Number: 23192		Analysis Date:	10/31/90

RESULTS:

COMPOUND	DETECTION LIMIT mg/cu. m.	DETECTION LIMIT ppb v/v	RESULT mg/cu. m.	RESULT ppb v/v
Methylene Chloride	0.1	20	ND	ND
Vinyl Chloride	0.1	20	ND	ND
1,1-Dichloroethene	0.1	15	ND	ND
1,1-Dichloroethane	0.1	15	ND	ND
cis/trans-1,2-Dichloroethene	0.1	15	ND	ND
Chloroform	0.1	10	ND	ND
1,2-Dichloroethane	0.2	40	ND	ND
1,1,1-Trichloroethane	0.1	15	ND	ND
Carbon Tetrachloride	0.1	15	ND	ND
Bromodichloromethane	0.1	10	ND	ND
1,2-Dichloropropane	0.1	15	ND	ND
cis-1,3-Dichloropropene	0.1	15	ND	ND
Trichloroethene	**0.1**	**15**	**0.1**	**17**
Benzene	0.3	100	ND	ND
Dibromochloromethane	0.1	10	ND	ND
1,1,2,-Trichloroethane	0.1	10	ND	ND
trans-1,3-Dichloropropene	0.1	15	ND	ND
1,1,2,2-Tetrachloroethane	0.1	15	ND	ND
Tetrachloroethene	**0.1**	**10**	**BQL**	**BQL**
Toluene	0.4	100	ND	ND
Chlorobenzene	0.5	100	ND	ND
Ethylbenzene	0.5	100	ND	ND
o-xylene	0.7	150	ND	ND
m &p-xylene	0.7	150	ND	ND
Acetone	0.3	100	ND	ND
2-butanone	0.3	100	ND	ND
4-Methyl 2-pentanone	0.4	100	ND	ND
2-Hexanone	0.4	100	ND	ND

ND = Not detected PR = Present but not calibrated for < = less than > = greater than

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ECD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

BQL=Below Quantitation (detection) Limit

Methane and unknown hydrocarbons were detected in the sample.

Signed: Stephen Kyllo Reviewed by: JES 1/21

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TETRA·K TESTING

VOLATILE ORGANICS REPORT

Client:		Date:	1/17/91
LMS Engineers		Sample ID:	SG-41
One Blue Hill Plaza		Matrix:	soil gas
Pearl River, NY 10965		Injection volume (ml):	5
Project: Brzezinski Property		Collection Date:	10/31/90
Project Number: 23192		Analysis Date:	10/31/90

RESULTS:

COMPOUND	DETECTION LIMIT mg/cu. m.	DETECTION LIMIT ppb v/v	RESULT mg/cu. m.	RESULT ppb v/v
Methylene Chloride	0.1	20	ND	ND
Vinyl Chloride	0.1	20	ND	ND
1,1-Dichloroethene	0.1	15	ND	ND
1,1-Dichloroethane	0.1	15	ND	ND
cis/trans-1,2-Dichloroethene	0.1	15	ND	ND
Chloroform	0.1	10	ND	ND
1,2-Dichloroethane	0.2	40	ND	ND
1,1,1-Trichloroethane	**0.1**	**15**	**0.1**	**18**
Carbon Tetrachloride	**0.1**	**15**	**BQL**	**BQL**
Bromodichloromethane	0.1	10	ND	ND
1,2-Dichloropropane	0.1	15	ND	ND
cis-1,3-Dichloropropene	0.1	15	ND	ND
Trichloroethene	**0.1**	**15**	**1**	**170**
Benzene	0.3	100	ND	ND
Dibromochloromethane	0.1	10	ND	ND
1;1,2,-Trichloroethane	0.1	10	ND	ND
trans-1,3-Dichloropropene	0.1	15	ND	ND
1,1,2,2-Tetrachloroethane	0.1	15	ND	ND
Tetrachloroethene	**0.1**	**10**	**0.37**	**50**
Toluene	0.4	100	ND	ND
Chlorobenzene	0.5	100	ND	ND
Ethylbenzene	0.5	100	ND	ND
o-xylene	0.7	150	ND	ND
m &p-xylene	0.7	150	ND	ND
Acetone	0.3	100	ND	ND
2-butanone	0.3	100	ND	ND
4-Methyl 2-pentanone	0.4	100	ND	ND
2-Hexanone	0.4	100	ND	ND

ND = Not detected PR = Present but not calibrated for < = less than > = greater than

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ECD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

BQL=Below Quantitation (detection) Limit
Methane and unknown hydrocarbons were detected in the sample.

Signed: Stephen Yardley Reviewed by: 1/28/91

Westfield Executive Park
53 Southampton Road
Westfield, MA 01085
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FAX. 413-562-5317

TETRA·K TESTING

VOLATILE ORGANICS REPORT

CLIENT:
LMS Engineers
One Blue Hill Plaza
Pearl River, NY 10965
Attn: Mr. Ed Maikish

Project: Brzezinski Property
Project Number: 23192

Date: 1/17/91

Sample ID: SG-42 WATER
Sample No: n/a
Matrix: Water
Dilution Factor: 1
Collection Date: 10/30/90
Reciept Date: 10/30/90
Analysis Date: 10/30/90

RESULTS:

COMPOUND	Detection Limit ug/L	Result ug/L	COMPOUND	Detection Limit ug/L	Result ug/L
Methylene Chloride	50	ND	Dibromochloromethane	100	ND
Vinyl chloride	50	ND	1,1,2,-Trichloroethane	10	ND
1,1-Dichloroethene	5	ND	trans-1,3-Dichloropropene	10	ND
1,1-Dichloroethane	5	ND	1,1,2,2-Tetrachloroethane	50	ND
c/t-1,2-Dichloroethene	5	ND	**Tetrachloroethene**	**10**	**BQL**
Chloroform	5	ND	Toluene	5	ND
1,2-Dichloroethane	20	ND	Chlorobenzene	5	ND
1,1,1-Trichloroethane	10	ND	Ethylbenzene	5	ND
Carbon Tetrachloride	10	ND	o-xylene	5	ND
Bromodichloromethane	100	ND	m & p-xylene	5	ND
1,2-Dichloropropane	10	ND	Acetone	100	ND
cis-1,3-Dichloropropene	10	ND	2-Butanone	50	ND
Trichloroethene	5	ND	4-methyl 2-pentanone	50	ND
Benzene	5	ND	2-hexanone	50	ND

ND = Not detected PR = Present but not calibrated for < = less than > = greater than

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph equipped with PID and FID detectors . The sample preparation method was EPA Method 3810; headspace screening method. The results were calculated using the internal standard method.

COMMENTS:

Water sample collected from soil gas point.
BQL=Below Quantitation (detection) Limit

Signed: Stephen Kneller Reviewed by: [illegible] 1/25

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TETRA·K TESTING

VOLATILE ORGANICS REPORT

Client:		Date:	1/17/91
LMS Engineers		Sample ID:	SG-43
One Blue Hill Plaza		Matrix:	soil gas
Pearl River, NY 10965		Injection volume (ml):	5
Project: Brzezinski Property		Collection Date:	10/30/90
Project Number: 23192		Analysis Date:	10/30/90

RESULTS:

COMPOUND	DETECTION LIMIT mg/cu. m.	DETECTION LIMIT ppb v/v	RESULT mg/cu. m.	RESULT ppb v/v
Methylene Chloride	0.1	20	ND	ND
Vinyl Chloride	0.1	20	ND	ND
1,1-Dichloroethene	0.1	15	ND	ND
1,1-Dichloroethane	0.1	15	ND	ND
cis/trans-1,2-Dichloroethene	0.1	15	ND	ND
Chloroform	0.1	10	ND	ND
1,2-Dichloroethane	0.2	40	ND	ND
1,1,1-Trichloroethane	0.1	15	ND	ND
Carbon Tetrachloride	0.1	15	ND	ND
Bromodichloromethane	0.1	10	ND	ND
1,2-Dichloropropane	0.1	15	ND	ND
cis-1,3-Dichloropropene	0.1	15	ND	ND
Trichloroethene	**0.1**	**15**	**BQL**	**BQL**
Benzene	0.3	100	ND	ND
Dibromochloromethane	0.1	10	ND	ND
1,1,2,-Trichloroethane	0.1	10	ND	ND
trans-1,3-Dichloropropene	0.1	15	ND	ND
1,1,2,2-Tetrachloroethane	0.1	15	ND	ND
Tetrachloroethene	0.1	10	ND	ND
Toluene	0.4	100	ND	ND
Chlorobenzene	0.5	100	ND	ND
Ethylbenzene	0.5	100	ND	ND
o-xylene	0.7	150	ND	ND
m &p-xylene	0.7	150	ND	ND
Acetone	0.3	100	ND	ND
2-butanone	0.3	100	ND	ND
4-Methyl 2-pentanone	0.4	100	ND	ND
2-Hexanone	0.4	100	ND	ND

ND = Not detected PR = Present but not calibrated for < = less than > = greater than

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ECD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

BQL=Below Quantitation (detection) Limit
Methane and unknown hydrocarbons were detected in the sample.

Signed: Steph Kwalby Reviewed by: [illegible] 1/25

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TETRA·K TESTING

VOLATILE ORGANICS REPORT

Client:		Date:	1/17/91
LMS Engineers		Sample ID:	SG-44
One Blue Hill Plaza		Matrix:	soil gas
Pearl River, NY 10965		Injection volume (ml):	5
Project: Brzezinski Property		Collection Date:	10/31/90
Project Number: 23192		Analysis Date:	10/31/90

RESULTS:

COMPOUND	DETECTION LIMIT mg/cu. m.	DETECTION LIMIT ppb v/v	RESULT mg/cu. m.	RESULT ppb v/v
Methylene Chloride	0.1	20	ND	ND
Vinyl Chloride	0.1	20	ND	ND
1,1-Dichloroethene	0.1	15	ND	ND
1,1-Dichloroethane	0.1	15	ND	ND
cis/trans-1,2-Dichloroethene	0.1	15	ND	ND
Chloroform	0.1	10	ND	ND
1,2-Dichloroethane	0.2	40	ND	ND
1,1,1-Trichloroethane	0.1	15	ND	ND
Carbon Tetrachloride	0.1	15	ND	ND
Bromodichloromethane	0.1	10	ND	ND
1,2-Dichloropropane	0.1	15	ND	ND
cis-1,3-Dichloropropene	0.1	15	ND	ND
Trichloroethene	**0.1**	**15**	**BQL**	**BQL**
Benzene	0.3	100	ND	ND
Dibromochloromethane	0.1	10	ND	ND
1,1,2,-Trichloroethane	0.1	10	ND	ND
trans-1,3-Dichloropropene	0.1	15	ND	ND
1,1,2,2-Tetrachloroethane	0.1	15	ND	ND
Tetrachloroethene	0.1	10	ND	ND
Toluene	0.4	100	ND	ND
Chlorobenzene	0.5	100	ND	ND
Ethylbenzene	0.5	100	ND	ND
o-xylene	**0.7**	**150**	**1.0**	**210**
m &p-xylene	0.7	150	ND	ND
Acetone	0.3	100	ND	ND
2-butanone	0.3	100	ND	ND
4-Methyl 2-pentanone	0.4	100	ND	ND
2-Hexanone	0.4	100	ND	ND

ND = Not detected PR = Present but not calibrated for < = less than > = greater than

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ECD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

BQL=Below Quantitation (detection) Limit
Methane and unknown hydrocarbons were detected in the sample.

Signed: Steph Kelley Reviewed by: KSB 1/21

Westfield Executive Park
53 Southampton Road
Westfield, MA 01085
TEL. 413-562-9193
FAX. 413-562-5317

TETRA·K TESTING

VOLATILE ORGANICS REPORT

Client:		Date:	1/17/91
LMS Engineers		Sample ID:	SG-45
One Blue Hill Plaza		Matrix:	soil gas
Pearl River, NY 10965		Injection volume (ml):	5
Project: Brzezinski Property		Collection Date:	10/31/90
Project Number: 23192		Analysis Date:	10/31/90

RESULTS:

COMPOUND	DETECTION LIMIT mg/cu. m.	DETECTION LIMIT ppb v/v	RESULT mg/cu. m.	RESULT ppb v/v
Methylene Chloride	0.1	20	ND	ND
Vinyl Chloride	0.1	20	ND	ND
1,1-Dichloroethene	0.1	15	ND	ND
1,1-Dichloroethane	0.1	15	ND	ND
cis/trans-1,2-Dichloroethene	0.1	15	ND	ND
Chloroform	0.1	10	ND	ND
1,2-Dichloroethane	0.2	40	ND	ND
1,1,1-Trichloroethane	**0.1**	**15**	**BQL**	**BQL**
Carbon Tetrachloride	0.1	15	ND	ND
Bromodichloromethane	0.1	10	ND	ND
1,2-Dichloropropane	0.1	15	ND	ND
cis-1,3-Dichloropropene	0.1	15	ND	ND
Trichloroethene	**0.1**	**15**	**BQL**	**BQL**
Benzene	0.3	100	ND	ND
Dibromochloromethane	0.1	10	ND	ND
1,1,2,-Trichloroethane	0.1	10	ND	ND
trans-1,3-Dichloropropene	0.1	15	ND	ND
1,1,2,2-Tetrachloroethane	0.1	15	ND	ND
Tetrachloroethene	**0.1**	**10**	**BQL**	**BQL**
Toluene	0.4	100	ND	ND
Chlorobenzene	0.5	100	ND	ND
Ethylbenzene	0.5	100	ND	ND
o-xylene	0.7	150	ND	ND
m &p-xylene	0.7	150	ND	ND
Acetone	0.3	100	ND	ND
2-butanone	0.3	100	ND	ND
4-Methyl 2-pentanone	0.4	100	ND	ND
2-Hexanone	0.4	100	ND	ND

ND = Not detected PR = Present but not calibrated for < = less than > = greater than

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ECD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

BQL=Below Quantitation (detection) Limit

Signed: _____ Reviewed by: _____

Westfield Executive Park
53 Southampton Road
Westfield, MA 01085
TEL. 413-562-9193
FAX. 413-562-5317

TETRA·K TESTING

VOLATILE ORGANICS REPORT

Client:		Date:	1/17/91
LMS Engineers		Sample ID:	SG-47
One Blue Hill Plaza		Matrix:	soil gas
Pearl River, NY 10965		Injection volume (ml):	5
Project: Brzezinski Property		Collection Date:	10/31/90
Project Number: 23192		Analysis Date:	10/31/90

RESULTS:

COMPOUND	DETECTION LIMIT mg/cu. m.	DETECTION LIMIT ppb v/v	RESULT mg/cu. m.	RESULT ppb v/v
Methylene Chloride	0.1	20	ND	ND
Vinyl Chloride	0.1	20	ND	ND
1,1-Dichloroethene	0.1	15	ND	ND
1,1-Dichloroethane	0.1	15	ND	ND
cis/trans-1,2-Dichloroethene	0.1	15	ND	ND
Chloroform	0.1	10	ND	ND
1,2-Dichloroethane	0.2	40	ND	ND
1,1,1-Trichloroethane	0.1	15	ND	ND
Carbon Tetrachloride	0.1	15	ND	ND
Bromodichloromethane	0.1	10	ND	ND
1,2-Dichloropropane	0.1	15	ND	ND
cis-1,3-Dichloropropene	0.1	15	ND	ND
Trichloroethene	**0.1**	**15**	**BQL**	**BQL**
Benzene	0.3	100	ND	ND
Dibromochloromethane	0.1	10	ND	ND
1,1,2,-Trichloroethane	0.1	10	ND	ND
trans-1,3-Dichloropropene	0.1	15	ND	ND
1,1,2,2-Tetrachloroethane	0.1	15	ND	ND
Tetrachloroethene	0.1	10	ND	ND
Toluene	0.4	100	ND	ND
Chlorobenzene	0.5	100	ND	ND
Ethylbenzene	0.5	100	ND	ND
o-xylene	**0.7**	**150**	**2.9**	**620**
m &p-xylene	**0.7**	**150**	**2.0**	**430**
Acetone	0.3	100	ND	ND
2-butanone	0.3	100	ND	ND
4-Methyl 2-pentanone	0.4	100	ND	ND
2-Hexanone	0.4	100	ND	ND

ND = Not detected PR = Present but not calibrated for < = less than > = greater than

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ECD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

BQL=Below Quantitation (detection) Limit

Methane and unknown hydrocarbons were detected in the sample.

Signed: Stephen Kneller Reviewed by: 1/31/25

Westfield Executive Park
53 Southampton Road
Westfield, MA 01085
TEL. 413-562-9193
FAX. 413-562-5317

TETRA·K TESTING

Brzezinski Property
Soil Gas Sampling Field Notes

Westfield Executive Park
53 Southampton Road
Westfield, MA 01085
TEL. 413-562-9193
FAX. 413-562-5317

A DIVISION OF TIGHE & BOND, INC.

C-46

10/28/90

BRZEZINSKI PROPERTY

0916 PURGING BZ SG-1 @ 2.0L/MIN

0918 COLLECT 2 5.0ml SYRINGES (B) FID/PID (C) ECD

0956 PURGING BZ SG-2 - H_2O IN TUBE.

0959 BZ SG-3 SEALED / NO FLOW

1111 BZ SG-4 PURGING @ 500 ml/min

1115 COLLECT 2 5.0ml SYRINGES (B) PID/FID (C) ECD

1143 BZ-SG-4 RECOLLECT

1225 SG-5 PURGING @ 200 ml/min

1228 COLLECT 2 5.0ml SYRINGES (B) PID/FID (C) ECD

1302 SG-6 PURGING @ 200ml/min (LOW FLOW)

1306 COLLECT 2 5.0ml SYRINGES (B) PID/FID (C) ECD

1336 SG-7 PURGING @ 2.0L/MIN

1338 COLLECT 2. 5.0ml SYRINGES (B) PID/FID (C) ECD

1413 SG-8 PURGING @ 1200ml/MIN

1415 Collect 2 5.0ml SYRINGES (B) PID/FID (C) ECD

10/28/90

BRZEZINSKI PROP.

1452 SG-9 PURGING @ 2.0 L/MIN

1454 COLLECT 2 5.0ml SYRINGES (B) PID/FID (C) ECD

1528 SG-10 PURGING @ 2.0L/MIN

1530 COLLECT 2 5.0ml SYRINGES (B) PID/FID (C) ECD

1608 SG-11 PURGING @ 1500ml/MIN

1611 COLLECT 2 5.0ml SYRINGES (B) PID/FID (C) ECD

10/29/90 0829 SG-12 WATER IN TUBE- NOT ENOUGH TO SAMPLE

0829 SG-13 PURGING @ 1700ml/MIN

0831 Collect 2 5.0 ml SYRINGES (B) PID/PID (C) ECD

0905 SG-14 PURGING @ 2.0 L/MIN

0907 Collect 2 5.0ml SYRINGES (B) PID/FID (C) ECD

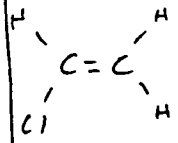
0944:30 SG-15 PURGING @ 2.0L/MIN (PETROLEUM ODOR)

0946:30 Collect 2 5.0ml SYRINGES (B) PID/FID (C) ECD

10/29/90

BRZEZINSKI PROD.

1031 VC STD 9.266 PPM v/v = $\frac{(\text{CONC mg/ml}) * 22.4 \text{ l/mole}}{\text{MW. (g/mole)}} \times 10^6$



CONC mg/cu. m. = $\frac{(9.266 \text{ PPM}) * \text{M.W.}}{22.4}$

35.45
24.0
3.0
62.45

$= \frac{(9.266) * (62.45)}{22.4}$

$= \boxed{25.8 \text{ mg/ml}}$

25.8 x 3ml INJ. = 77.5 mg

1049 SG-16 PURGING @ 2.0L/MIN

1051 COLLECT 2 5.0ml SYRINGES (B) PID/FID (C) ECD

1126 SG-17 PURGING @ 100 ml/min (LOW FLOW BUT NOT SEALED)

1130 COLLECT 2 5.0 ml SYRINGES (B) PIDFID (C) ECD INJ - 2 ml H

1206 SG-18 NO FLOW - SEALED

← NO SAMPLE 4 INJS. VAC

1211 SG-19 PURGING @ 2.0L/MIN

1213 COLLECT 2 5.0ml SYRINGES (B) PID/FID (C) ECD

1246 SG-20 PURGING @ 2.0L/MIN

1248 Collect 2 5.0ml SYRINGES (B) PID/FID (C) ECD

10/29/90 BRZEZINSKI PROP.

1320 SG-21 PURGING @ 2.0L/MIN

1322 Collect 2 5.0ml SYRINGES (B) PID/FID (C) ECD

O-XYLENE 12.07 µg/L AREA = 1545527

ISTD AREA = 8591315 } RATIO = 1.2931

STD ISTD AREA = 6643920 }

1353 SG-22 PURGING @ 2.0L/MIN

1355 Collect 2 5.0ml SYRINGES (B) PID/FID (C) ECD

1436 SG-23 PURGING @ 2.0L/MIN

1438 Collect 2 5.0ml SYRINGES (B) PID/FID (C) ECD

1512 SG-24 - NO FLOW - SEALED. - NO SAMPLE

1514 SG-25 PURGING @ 2.0L/MIN

1516 Collect 2 5.0ml SYRINGES (B) PID/FID (C) ECD

1552 SG-16 DUP PURGING @ 2.0L/MIN

1554 COLLECT 2 5.0ml SYRINGES (B) PID/FID (C) ECD

5/7

10/30/90 BRZEZINSICI PROP.

0921 SG-26 NO FLOW W/ PUMPING ; NO H_2O IN TUBE - NO-SAMPLE

0927 SG-30 PUMPING 1100 ml/min SOME H_2O IN TUBE - USING WATER TRAP IN PUMPING SYSTEM.

0933 Collect 2 5.0 ml SYRINGES (B) PID/FID (C) ECD

1016 SG-27 PURGING @ 2.0 L/MIN

1018 Collect 2 5.0 ml SYRINGES (B) PID/FID (C) ECD

1052 SG-28 PURGING @ 1300 ml/min

1055 Collect 2 5.0 ml SYRINGES (B) PID/FID (C) ECD

1126 SG-29 PURGING @ 600 ml/min

1130 Collect 2 5.0 ml SYRINGES OF SOIL GAS (B) PID/FID (C) ECD

1205 SG-31 PURGING @ 2000 ml/min ~~H_2O~~ H_2S ODOR

1207 Collect 2 5.0 ml SYRINGES OF SOIL GAS. (B) PID/FID (C) ECD

1242 SG-32 PURGING @ 2.0 L/MIN

1244 Collect 2 5.0 ml SYRINGES OF SOIL GAS (B) PID/FID (C) ECD

6/7

10/30/90 — BRZEZINSKI PROP

1321 — SG-33 PURGING @ 1800ml/MIN

1323 — Collect 2 5.0ml SYRINGES (B) PID/FID (C) ECD

1359 — SG-34 PURGING @ 2000ml/min

1401 — Collect 2. 5.0ml SYRINGES (B) PID/FID (C) ECD

1441 — SG-35 - NO FLOW - SEALED
- NO SAMPLE COLLECTED

1444 — SG-36 PURGING @ 600 ml/MIN - H_2O TRAP USED

1449 — Collect 2 5.0 ml SYRINGES (B) PID/FID (C) ECD SOME H_2O IN TUBE

1510 — Collect H_2O sample from SG-42 using vac. pump and H_2O trap.

1605 — SG-43 PURGING @ 1800 ml/MIN

1607 — Collect 2 5.0 ml SYRINGES (B) PID/FID (C) ECD

10/31/90

0849 — SG-37 PURGING @ 1700 ml/MIN

0852 — Collect 2 5.0ml SYRINGES (B) PID/FID (C) ECD

0929 — SG-38 PURGING @ 2.0L/MIN

0931 — Collect 2 5.0 ml SYRINGES OF SOIL GAS (B) PID/FID (C) ECD C-SE

7/7

10/31/90 BRZEZINSKI PROPERTY

1011 SG-39 - NO FLOW - SEALED

1012 SG-41 PURGING @ 2.0 L/MIN

1014 Collect 2 5.0 ml SYRINGES OF SOIL GAS (B) PID/FID (C) ECD

1058 SG-40 PURGING @ 2.0 L/MIN

1100 Collect 2 5.0 ml SYRINGES OF SOIL GAS (B) PID/FID (C) ECD

1139 SG-47D - NO FLOW - SEALED
2 @ 16 ft

1141 SG-47 PURGING @ 2.0 L/MIN

1143 Collect 2 5.0 ml SYRINGES (B) PID/FID (C) ECD

1223 SG-47 RECOLLECT - PURGING @ 2.0 L/MIN

1225 Collect 2 5.0 ml SYRINGES (B) PID/FID (C) ECD

1258 SG-44 PURGING @ 2.0 L/MIN

1300 Collect 2 5.0 ml SYRINGES (B) PID/FID (C) ECD

1340 SG-45 PURGING @ 2.0 L/MIN

1342 Collect 2 5.0 ml SYRINGES (B) PID/FID (C) ECD

1415 SG-46 - NO FLOW - SEALED
- NO SAMPLE -

C-53

APPENDIX D

APPENDIX D

BORING/WELL LOGS

Data by _____

SUBSURFACE EXPLORATION - TEST BORING LOG

Boring No. GWBZ-4
Project No. 576-043

Project Name Brzezinski
Client NYSDEC
Driller American Augers
Monitoring Instrument(s) CGI, OVA, HNU
SAMPLE HAMMER
Weight 140 lb
Fall 30 in.

Date 11.28.90 start 11.28.90 finish
Boring Location _____
Total Depth 22ft
Depth to Water _____
Hole Diameter 8"
Ground Surface Elevation _____

Depth	BLOWS ON SAMPLER 0" to 6"	6" to 12"	12" to 18"	18" to 24"	Retained Sample	Recovery (feet)	Sample No.	Instrument Reading	Moisture Content	Stratigraphic Column	CLASSIFICATION OF MATERIAL	Remarks
											f - fine; m - medium; c - coarse; and - 35-50%; some - 20-35%; little - 10-20%; trace - 0-10%	
0-2	3	4	8	5		1.5		BG	Dry	.8	Brown to black Top soil silty clay, some sand leaves and roots	
									Dry	.2	Black to brown sandy clay	
									Dry	.5	Brown silty clay, v.f. fine sand Trace roots & concrete	Compact
2-3						NONE						
3-5	8	9	5	4		1.1		BG	Dry	.3	Light brown fill material silty sand w/ concrete	
									Dry	.8	Black silty sand, fragments of Brick	
5-7	2	3	7	4		1.6		BG		1.6	Dark brown to black fill silty very fine sand white unknown material (chalk like)	
7-9	17	6	11	13		.2		BG	Dry	.8	Concrete fragments	
9-10.3	71	33	50	40		.9		HNU 10ppm CGI 1kppm		.9	Water encountered at 9.7 Ft Dark black silty / sand some concrete mixed in.	loose
10.3-17.3	5	3	4	7		1.4			wet	1.4	Very Black silty / sand HNU-1000ppm OVA - 40ppm (PID) MSA - B.G.	

LAWLER, MATUSKY & SKELLY ENGINEERS

Boring No. GWBZ-4
Project No. 576-043

Depth	BLOWS ON SAMPLER 0" to 6"	6" to 12"	12" to 18"	18" to 24"	Retained Sample	Recovery (feet)	Sample No.	Instrument Reading	Moisture Content	Stratigraphic Column	CLASSIFICATION OF MATERIAL (f - fine, m - medium, c - coarse; and - 35-50%, some - 20-35%, little - 10-20%, trace - 0-10%)	Remarks
12-14	4	11	9	6		w/o recovery			wet	split	spoon	
14-16	2	3	2	3		1.5			wet	1.5	HNU - 110ppm OVM - 30ppm CGI - 3.8. Black silty/sand	loose
16-18	1	1	2	2		No Recovery					wet split-spoon	
18-20	1	1	4	7		No Recovery						
20-22	1	1	5	8		1.9			wet	1.1	Black sandy/silt some clay	
									wet	.8	med. to fine sand some gravel (black)	

LAWLER, MATUSKY & SKELLY ENGINEERS

D-4

Data by _____

Sheet 1 of 1

SUBSURFACE EXPLORATION - TEST BORING LOG

Boring No. GWBZ-5
Project No. 576-043

Project Name Brzezinski
Client NYSDEC
Driller American Auger
Monitoring Instrument(s) OVA, CGI, HNU

SAMPLE HAMMER
Weight 140 lb
Fall 30 in.

Date 11.28.90 (start) 11.28.90 (finish)
Boring Location _____
Total Depth 19'
Depth to Water _____
Hole Diameter 8"
Ground Surface Elevation _____

Depth	BLOWS ON SAMPLER 0" to 6"	6" to 12"	12" to 18"	18" to 24"	Retained Sample	Recovery (feet)	Sample No.	Instrument Reading	Moisture Content	Stratigraphic Column	CLASSIFICATION OF MATERIAL (f - fine, m - medium, c - coarse; and - 35-50%, some - 20-35%, little - 10-20%, trace - 0-10%)	Remarks
0-2	10	9	8	13		.9		BG	Dry	.9	Brown clay, some brick fragments Tar paper	
2-4	8	12	8	9		1.2		BG.	wet	1.2	As above	
4-6	4	3	3	2		.3		OVA 22ppm	Dry	.3	Black coarse sand, Tar paper, light grey silty clay	
6-8	2	4	6	10		1.6		BG	moist	.8	light grey silty clay some fine sand	compact
									Dry	1.8	light Brown to grey clay V.f. sand some roots.	compact
8-10	4	6	7	10		1.6		BG.	Dry	1.6	light Brown clay, Trace sand	
10-12	3	4	6	7		1.2		BG.	Dry	1.2	Red Brown clay Trace silt	Highly compact
12-14	2	2	4	8		1.6		BG	Dry	1.6	As above	
14-16	3	3	3	3		2.0		BG	Dry	1.8	As above	
									moist	.2	Red-Red/grey clay	plastic
16-18	3	3	2	3		1.8		BG	Moist	1.8	Brown grey clay some silt	plastic
18-20	1	1	1	1		2.0		BG.	Moist	2.0	As above	

LAWLER, MATUSKY & SKELLY ENGINEERS

Data by _____

Sheet 1 of 1

SUBSURFACE EXPLORATION - TEST BORING LOG

Boring No. TBB2-1
Project No. 576-043

Project Name Brezinski

Client NYSDEC

Driller American Augers

Monitoring Instrument(s) HNU, CGI, OVA

SAMPLE HAMMER

Weight 140 lb

Fall 30 in.

Date 11.29.90 start — 11.29.90 finish

Boring Location _____

Total Depth 22'

Depth to Water _____

Hole Diameter 8'

Ground Surface Elevation _____

Depth	BLOWS ON SAMPLER 0" to 6"	6" to 12"	12" to 18"	18" to 24"	Retained Sample	Recovery (feet)	Sample No.	Instrument Reading	Moisture Content	Stratigraphic Column	CLASSIFICATION OF MATERIAL (f - fine, m - medium, c - coarse; and - 35-50%, some - 20-35%, little - 10-20%, trace - 0-10%)	Remarks
0-2	3	4	7	7		1.2		B.Z.	Dry	1.2	light Brown Silty v.f. sand some clay, wood chunks, roots and gravel	
2-4	3	2	4	7		1.0		B.Z.	Dry	1.0	light Brown fill, wood chunks some fine sand and clay	
4-6	13	9	7	3		1.1		[illegible]	Dry	.6	As above	
6-8	1	1	1	1		1.2		[illegible]	wet	1.2	Black Sandy /Silt	loose
8-10	3	2	4	7		.4		[illegible]	moist	.4	as above	
10-12	2	4	5	9		1.6		B.Z.	Dry	1.6	Brown Silty clay	Compact
13-14	3	4	5	6		1.9		B.Z.	Dry	1.9	As above	Compact
14-16	3	3	4	4		1.8		B.Z.	moist	1.5	As above	
16-18	2	2	2	2		2.0		B.Z.	moist	2.0	As above	
18-20	1	2	1	2		2.0		B.Z.	moist	2.0	As above	
20-22	1	1	1	1		2.0		B.Z.	moist	2.0	As above	

LAWLER, MATUSKY & SKELLY ENGINEERS

Data by _____

Sheet 1 of 1

SUBSURFACE EXPLORATION - TEST BORING LOG

Boring No. TBB2-2
Project No. 576-043

Project Name Breezinski
Client NYSDEC
Driller American Auger
Monitoring Instrument(s) HNU OVA, CGI
SAMPLE HAMMER
Weight 140 lb
Fall 30 in.

Date 11.29.90 start — 11.29.90 finish
Boring Location _____
Total Depth 20'
Depth to Water _____
Hole Diameter _____
Ground Surface Elevation _____

Depth	BLOWS ON SAMPLER 0" to 6"	6" to 12"	12" to 18"	18" to 24"	Retained Sample	Recovery (feet)	Sample No.	Instrument Reading	Moisture Content	Stratigraphic Column	CLASSIFICATION OF MATERIAL (f - fine, m - medium, c - coarse; and - 35-50%, some - 20-35%, little - 10-20%, trace - 0-10%)	Remarks
0-2	2	6	8	11		.4		BG	moist	.4	light Brown clay some silt, gravel, leaves, roots	
2-4	6	8	6	13		.5		BG	Dry	.5	Black Ash Sandy, Silt	loose
4-6	8	9	6	14		.3		OVA 1.0	Dry	.3	As above	
6-8	3	2	1	20		1.1		OVA 50 HNU 20	Dry	1.1	As above	
8-10	2	2	1	2		.2		OVA 5	moist	.2	Poor recovery as above	
10-12	4	5	7	13		1.3		BG	Dry	1.3	Red grey clay	compact
12-14	3	4	4	7							No recovery	
14-16	4	4	4	5		.7		BG	moist	.7	Red Brown clay	plastic
16-18	3	4	4	6		.2		BG	Moist	.2	As above	Plastic
18-20	1	1	1	2		1.8		BG	wet	1.8	Red Brown clay As above	

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LAWLER, MATUSKY & SKELLY ENGINEERS

Sheet 1 of 1

Data by _____

SUBSURFACE EXPLORATION - TEST BORING LOG

Boring No. TBB2-3
Project No. 576-043

Project Name Brzezinski
Client NYSOEC
Driller American Auger
Monitoring Instrument(s) _____
SAMPLE HAMMER
Weight 140 lb
Fall 30 in.

Date 11.29.90 (start) 11.29.90 (finish)
Boring Location _____
Total Depth 24'
Depth to Water _____
Hole Diameter _____
Ground Surface Elevation _____

Depth	BLOWS ON SAMPLER 0" to 6"	6" to 12"	12" to 18"	18" to 24"	Retained Sample	Recovery (feet)	Sample No.	Instrument Reading	Moisture Content	Stratigraphic Column	CLASSIFICATION OF MATERIAL (f - fine, m - medium, c - coarse; and - 35-50%, some - 20-35%, little - 10-20%, trace - 0-10%)	Remarks
0-2	2	3	5	5		1.7		BG	Dry	1.9	Light Brown Silty clay	Compact
2-4	4	4	4	16		1.4		BG.	moist	1.4	Black Sandy / silt some wood	loose
4-6	6	4	10	14		1.2		OVM 50	Dry	1.2	Black Sandy / silt some wood	loose
6-8	12	20	20	17		1.1		OVM 200 HNU 5	Dry	1.1	As above	
									wet	.3	As above w/ a sheen of oil	
8-10	8	4	2	7		.3		BG				
											no recovery	
10-12	3	5	5	7								loose
12-14	8	6	4	6		.4		BG.	wet	.4	Black Sandy / silt	
14-16	3	3	3	3		1.5		BG.	wet	1.5	As above	
											no recovery	
16-18	2	1	1	2								
18-20	3	2	4	6		2.0		OVM 100 HNU 10	wet	2.0	Black Sandy / silt	
20-22	1	1	4	13		2.0		BG.	wet	1.4	As above	
									wet	1.6	grey to black fine-coarse sand some gravel	
22-24	3	3	4	7		1.8		BG.	wet	1.6	As above	
										1.2	Red clay	

LAWLER, MATUSKY & SKELLY ENGINEERS

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Sheet 1 of 1

Data by _____

SUBSURFACE EXPLORATION - TEST BORING LOG

Boring No. TBB2-4
Project No. 576-043

Project Name Breezinski
Client NYSDEC
Driller American Augr
Monitoring Instrument(s) CGI, OVA, HNU

SAMPLE HAMMER
Weight 140 lb
Fall 30 in.

Date 11.30.90 (start) 11.30.90 (finish)
Boring Location _____
Total Depth 24'
Depth to Water _____
Hole Diameter _____
Ground Surface Elevation _____

Depth	BLOWS ON SAMPLER 0" to 6"	6" to 12"	12" to 18"	18" to 24"	Retained Sample	Recovery (feet)	Sample No.	Instrument Reading	Moisture Content	Stratigraphic Column	CLASSIFICATION OF MATERIAL (f - fine, m - medium, c - coarse; and - 35-50%, some - 20-35%, little - 10-20%, trace - 0-10%)	Remarks
0-2	4	6	7	8		1.6		U.G.	Moist	1.4	Brown silty clay some sand roots and gravel	
										.2	grey silty sand	
2-4	6	8	9	13		1.3		OVA 50	Dry	1.3	Black Ash, Sandy Silt	
4-6	7	7	4	6		.7		OVA 100 HNU 5	Dry	.7	As above	
6-8	6	7	7	7		1.1		OVA 50	Dry	1.1	As above Some wood	
8-10	4	4	3	3							No recovery	
10-12	1	1	3	4		1.0		B.G.	Wet	1.0	Black Sandy Silt as above	
12-14	3	4	1	1		2.0		OVA 100	Wet	2.0	As above Some gravel	
14-16	3	3	2	2		.7		OVA 40	Wet	.7	As above	
16-18	2	2	2	2							No recovery	
18-20	1	1	4	6		2.0		OVA 50-100	Wet	1.4	As above	
										.6	Coarse to V. coarse grey Sand	
20-22	4	4	5	4		2.0		B.G.	Wet	2.0	As above Some shell fragments	
22-24	9	8	11	9		2.0		B.G.	Wet	1.5	As Above	
										.5	Red clay	

LAWLER, MATUSKY & SKELLY ENGINEERS

Well No. GWBZ-5
Project No. 576-043

Project Name Brzezinski

Client NYSDEC

Location

Date Drilled 11.28.90

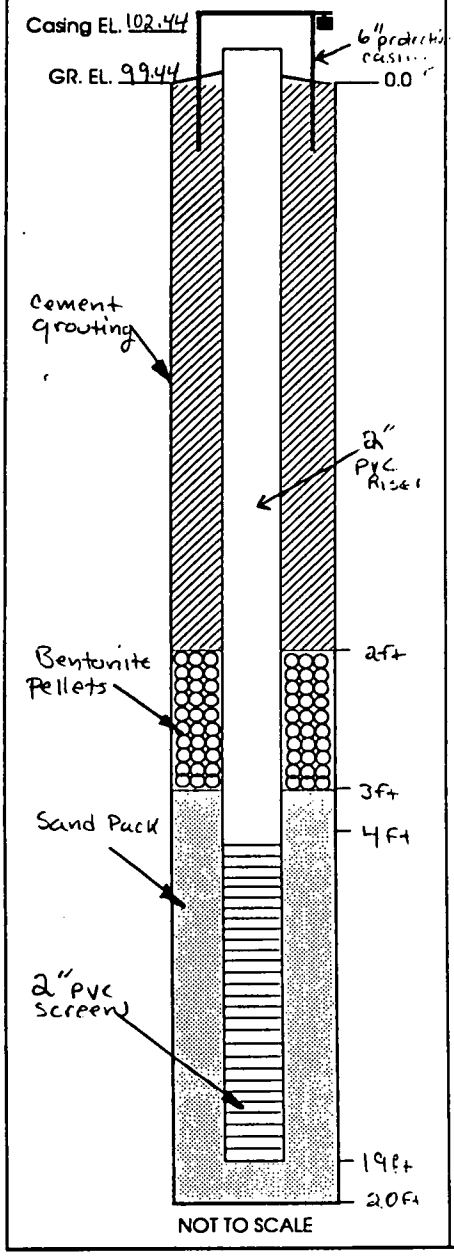
Date Developed 11.30.90

Developing Method Air lift

Well Construction Completed 11.28.90

MONITORING WELL COMPLETION LOG

WELL CONSTRUCTION DETAIL



Inspector Joe Giannelli, Tarik Zarrouk
Drilling Contractor American Auger

Type of Well overburden Monitoring
Static Water Level 95.54 ft Date 11.29.90
Measuring Point (M.P.) ground surface
Total Depth of Well 19'
Total Depth of boring 20'

Drilling Method
Type _____ Diameter 4.24 in
Casing steal

Sampling Method
Type Split-spoon Diameter 1"
Weight 140 lb. Fall 30 in
Interval 2ft.

Riser Pipe Left in Place
Material PVC Diameter 2"
Length 6.5ft Joint Type Flush thread

Screen
Material PVC Diameter 4 in
Slot Size 10slot Length 15.0ft
Stratigraphic Unit Screened Red brown clay- Tied in silty zones

Filter Pack
Sand √ Gravel _____ Natural _____
Grade No. 3
Amount 3.5 bags Interval 20'-3'

Seal(s)
Type Bentonite Pellets Interval 3'-2'
Type cement grouting Interval 2'-0'
Type _____ Interval _____

Locking Casing ☒ Yes ☐ No
Notes:

LAWLER, MATUSKY SKELLY ENGINEERS

Well No. GWB7-4
Project No. 576-043

Project Name Brzezinski

Client NYSDEC

Location

Date Drilled 11.28.90

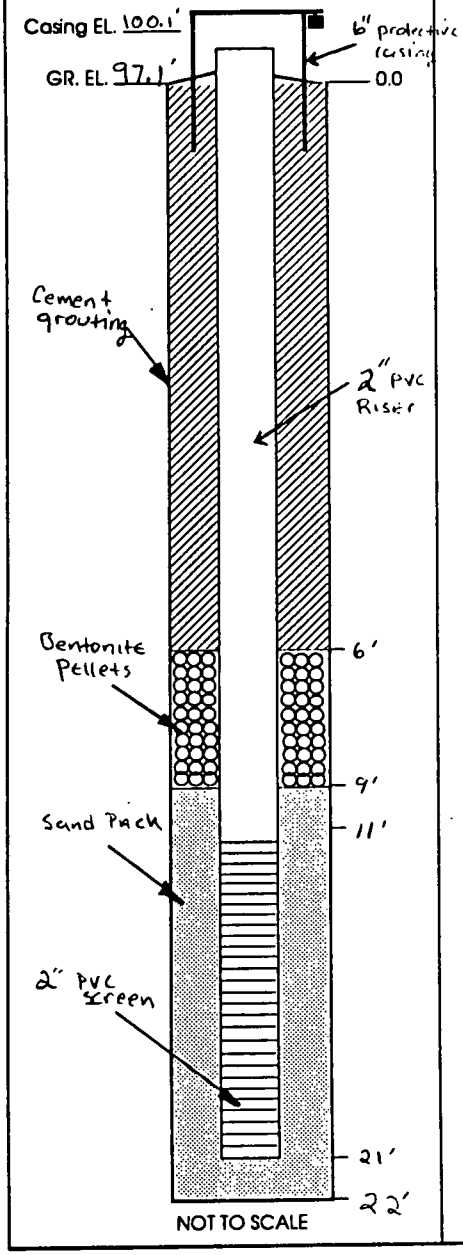
Date Developed 11.30.90

Developing Method Air lift

Well Construction Completed 11.28.90

MONITORING WELL COMPLETION LOG

WELL CONSTRUCTION DETAIL



NOT TO SCALE

Inspector Joe Giannelli, Tarik Zarrouk
Drilling Contractor American Auger

Type of Well Overburden Monitoring
Static Water Level 89.1' Date 11.29.90
Measuring Point (M.P.) Surface
Total Depth of Well 21'
Total Depth of boring 22'

Drilling Method
Type Diameter 4.24 in.
Casing

Sampling Method
Type Split Spoon Diameter 1"
Weight 140 lb Fall 30"
Interval 2 ft

Riser Pipe Left in Place
Material PVC Diameter 2 IN
Length 13' Joint Type Flush Thread

Screen
Material PVC Diameter 2 in
Slot Size 10 slot Length 10 ft
Stratigraphic Unit Screened Black Ash Sandy Silt Zone.

Filter Pack
Sand ✓ Gravel Natural
Grade No 3
Amount 3 bags Interval 22'-9'

Seal(s)
Type Bentonite pellets Interval 9'-6'
Type Grouting Interval 6'-0'
Type Interval

Locking Casing ☒ Yes ☐ No
Notes:

LAWLER, MATUSKY SKELLY ENGINEERS

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APPENDIX E

SAMPLING LOGS

Date: 12/5-6/90

Crew: Jim, Jack

Job No: 576-073

Project: NYSDEC Phase II

Project Site: Brzezinski Ldfl

Well ID No: Trip Blank

Well Condition: —

Well Depth/Diameter: —

Well Casing Type: —

Screened Interval: —

Casing Ht/Lock No: —

Reference Pt: —

Depth to Water (DTW): —

Water Column; Ht/Vol: —

Purge Est: —

Purge Date/Time(s): —

Purge Method: —

Purge Depth(s): —

Purge Rates (gpm): —

Purged Volume: —

DTW After Purging: —

Yield Rate: L-M-H —

Purge Observations: —

PURGE CHEMISTRIES

VOL.	TEMP. (°C)	pH	SP. COND.	TURB.

X

METERS USED

Temp: —

pH: —

Cond: —

Turb: —

DTW Before Sampling: —

Sample Date/Time(s): 12/5-6/90

Sampling Method: —

Sampling Depth(s): —

DTW After Sampling: —

Sampling Observations: —

Chain-of-Custody No(s): —

Analytical Lab(s): Aquatec

WET SAMPLE CHEMISTRIES

	Temp. (°C)	pH	Sp. Cond.	Turb.
Before				
After				

SAMPLE ANALYSES

Parameters	Inv. No.	Pres. Meth.	Filt. (Y/N)
VOCs	TCLP	4°	N

* Both vials had bubbles in them when they arrived with the sample bottles.

Comments:
Aquatec supplied the TB's w/ the sample bottles

Air Temp: 25-35°F

Weather Conditions:
Overcast → lt to mod snow
Windy → breezy

Crew Chief Signature: John M Engwall Date: 12-6-90

WELL SAMPLING LOG

Date: 12-5-90
Crew: JmG JmK
Job No: 576-093
Project: NYSDEC Phase II
Project Site: Brzezinski Ldfl

METERS USED
Temp: See GWBZ-3 log
pH:
Cond:
Turb:

Well ID No: GWBZ-1 (Blind Duplicate of GWBZ-3)
Well Condition: See GWBZ-3 Log
Well Depth/Diameter:
Well Casing Type:
Screened Interval:
Casing Ht/Lock No:
Reference Pt:
Depth to Water (DTW):
Water Column; Ht/Vol:
Purge Est:
Purge Date/Time(s):
Purge Method:
Purge Depth(s):
Purge Rates (gpm):
Purged Volume:
DTW After Purging:
Yield Rate: L-M-H
Purge Observations:

PURGE CHEMISTRIES

VOL.	TEMP. (°C)	pH	SP. COND.	TURB.

DTW Before Sampling:
Sample Date/Time(s): 12-5-90/0910
Sampling Method: See GWBZ-3 Log
Sampling Depth(s):
DTW After Sampling:
Sampling Observations:
Chain-of-Custody No(s):
Analytical Lab(s):

WET SAMPLE CHEMISTRIES

	Temp. (°C)	pH	Sp. Cond.	Turb.
Start				
End				

SAMPLE ANALYSES

Parameters	Inv. No.	Pres. Meth.	Filt. (Y/N)
VOCs: TCL+10			N
BNAs: TCL+20			
Pest/PCBs: TCL			
Metals: TCL			
Cyanide TCL			
COD			
TSS			
TDS, pH, Sp Cond			

Comments: This sample is a blind duplicate of GWBZ-3. Sample bottles of the same parameter were filled together to ensure that the 2 sets of samples are as homogeneous as possible. The sample was given a fictional time of "0910" on labels & chain-of-custody
Air Temp:
Weather Conditions:

Crew Chief Signature: John M. Gaynor Date: 12-5-90

WELL SAMPLING LOG

Date: 12-5-90
Crew: JG Jmck
Job No: 576-093
Project: NYSDEC
Project Site: Brzezinski

METERS USED

Temp: 134
pH: DEC Hydac D3774909
Cond: DEC TLC #500
Turb: DEC HF DRT 15C

Well ID No: GWBZ-3
Well Condition: Good (Cement collar broken up)*
Well Depth/Diameter: 21.30' / 2"
Well Casing Type: PVC
Screened Interval:
Casing Ht/Lock No: Steel, 2.03' PVC 1.78' / #3246 **
Reference Pt: Top of PVC
Depth to Water (DTW): 10.46
Water Column; Ht/Vol: 10.84' / 1.89 gal (2" well)
Purge Est: 10.84 x 1.05 = 11.4 gal (5" borehole)
11.4 x 4 = 45.5 gal.
Purge Date/Time(s): 12-5-90 / 0939-1016
Purge Method: Centrifugal Pump w/ Dedicated Tubing
Purge Depth(s): Bottom → Surface
Purge Rates (gpm): 2 gpm
Purged Volume: 72 gal
DTW After Purging: 10.80'

Yield Rate: L (M-H)
Purge Observations: Turbid, black & first (from accum. fines on bottom) cleared up quickly, slight sulfur odor

DTW Before Sampling: 10.47'
Sample Date/Time(s): 12-5-90 / 1040-1140
Sampling Method: Teflon Bailer (#27)
Sampling Depth(s): Surface
DTW After Sampling: No apparent drawdown
Sampling Observations: Rather clear, no noticeable odor
Chain-of-Custody No(s): —
Analytical Lab(s): Aquatec

WET SAMPLE CHEMISTRIES

	Temp. (°C)	pH	Sp. Cond.	Turb.
Start	7.9°	7.5	739	12
End	8.9°	7.5	729	08

PURGE CHEMISTRIES

VOL.	TEMP. (°C)	pH	SP. COND.	TURB.
10 gal	10.5°	7.6	830	30
30 gal	10.4°	7.6	670	65
50 gal	10.4°	7.5	716	15
65 gal	10.4°	7.5	719	11

SAMPLE ANALYSES

Parameters	Inv. No.	Pres. Meth.	Filt. (Y/N)
VOCs TCL+10		4°	N
BNAs TCL+20		↓	
Pest./PCBs TCL		↓	
Metals TCL		HNO3	10 NTUs
Cyanide TCL		NaOH	
COD		H2SO4	
TSS		4°	
TDS pH Sp Cond		↓	

Comments:
* Top extention piece on well (held on by slip joint) is a little loose, but is easily pushed back on ... It is not broken
Blind Dup collected at this well, labeled GWBZ-1
Crew Chief Signature: John M Gurnick
** Old lock would not unlock. We cut it off & replaced it

Air Temp: 30° F
Weather Conditions: Overcast, Mod. snow, Mod. wind off Niagara River, Snow Tampered off during sampling

Date: 12-5-90

WELL SAMPLING LOG

Date: 12-5-90
Crew: JMG JMcK
Job No: 576-043
Project: NYSDEC Phase II
Project Site: Brzezinski Landfill

Well ID No: Field Blank
Well Condition: —
Well Depth/Diameter: —
Well Casing Type: —
Screened Interval: —
Casing Ht/Lock No: —
Reference Pt: —
Depth to Water (DTW): —
Water Column; Ht/Vol: —
Purge Est: —

Purge Date/Time(s): —
Purge Method: —
Purge Depth(s): —
Purge Rates (gpm): —
Purged Volume: —
DTW After Purging: —

Yield Rate: L-M-H —
Purge Observations: —

METERS USED

Temp: —
pH: —
Cond: —
Turb: —

DTW Before Sampling: —
Sample Date/Time(s): 12-5-90/1225
Sampling Method: Teflon Bailer (#23)
Sampling Depth(s): —
DTW After Sampling: —
Sampling Observations: —
Chain-of-Custody No(s): —
Analytical Lab(s): Aquatec

WET SAMPLE CHEMISTRIES

	Temp. (°C)	pH	Sp. Cond.	Turb.
Start				
End				

PURGE CHEMISTRIES

VOL.	TEMP. (°C)	pH	SP. COND.	TURB.

SAMPLE ANALYSES

Parameters	Inv. No.	Pres. Meth.	Filt. (Y/N)
VOCs TCL +10		4°	N
BNAs TCL +20		↓	↓
Pest./PCBs TCL		↓	↓
Metals TCL		HNO_3	↓
Cyanide TCL		NaOH	↓

X

Comments:
Aquatec supplied the FB water. The water was poured through the bailer into a clean set of bottles. The bailer was then used to sample GWBZ-2

Air Temp: 25-30° F
Weather Conditions: Overcast, windy

Crew Chief Signature: John M Gruzenski Date: 12-5-90

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WELL SAMPLING LOG

Date: 12-5-90
Crew: JG JM IC
Job No: 576-043
Project: NYSDEC Phase II
Project Site: Brezinski Ldfl

METERS USED

Temp: 134 / CP 455 XP
pH: DEC Hydac / CP# 10C
Cond: DEC TLC 560
Turb: DEC HF DRT 15C

Well ID No: GWBZ-2
Well Condition: Good (Concrete collar broken up)
Well Depth/Diameter: 24.35' / 2"
Well Casing Type: PVC
Screened Interval:
Casing Ht/Lock No: steel, PVC, 1.87 1.81 / #2240 *
Reference Pt: Top of PVC Casing
Depth to Water (DTW): 11.35'
Water Column; Ht/Vol: 13.00' / 2.2 gal (2" well)
Purge Est: 13.00 x 1.05 = 13.6 gal (5" Borehole)
13.6 x 4 = 54.4 gal
Purge Date/Time(s): 12-5-90 / 0910-0912, 0953-0956, 1016-1018, 1120-1122
Purge Method: Centrifugal Pump w/ Dedicated Tubing
Purge Depth(s): Surf → Bottom (Dryness)
Purge Rates (gpm): —
Purged Volume: 13 gal.
DTW After Purging: Dry

Yield Rate: (I) M-H
Purge Observations:
Black, very turbid, sulfur odor.

DTW Before Sampling: 11.35
Sample Date/Time(s): 12-5-90 / 1240-1315
Sampling Method: Teflon Bailer (# 23)
Sampling Depth(s): Surface → 11.35
DTW After Sampling: — drawdown ~ 1.0' during sampling
Sampling Observations: Mod. turbid, gray-brn slight sulfur odor
Chain-of-Custody No(s): —
Analytical Lab(s): Aquatec

PURGE CHEMISTRIES

VOL.	TEMP. (°C)	pH	SP. COND.	TURB.
3 gal	8.5°/10.6°	7.4	1922	off scale
6 gal.	10.2°	7.3	1908	" "
9 gal.	9.2°	7.3/7.3	1895	" "
13 gal	9.0	7.3	1870	" "

WET SAMPLE CHEMISTRIES

	Temp. (°C)	pH	Sp. Cond.	Turb.
Start	9.1°	7.2	1838	123
End	9.9°	7.2	1860	144

SAMPLE ANALYSES

Parameters	Inv. No.	Pres. Meth.	Filt. (Y/N)
VOC's TCL +10		4°	N
BNA's TCL +10		↓	↓
Pest/PCBs TCL		↓	↓
Metals TCL		HNO_3	↓
Cyanide TCL		NaOH	↓
COD		H_2SO_4	↓
TSS		4°	↓
TDS, pH Sp Cond		↓	↓
Metals TCL (Filtered)		HNO_3	Y

NTUs: 130

Comments:
Purged dry @ 3 gal, let recover & purged dry again 3 more times. Turb. never really decreased. 1 field blank was performed on the bailer before sampling the well. Sample was rather turbid, we collected an extra sample & filtered it for diss. metals and.

Air Temp: 30°
Weather Conditions:
Overcast, Mod. Snow, Mod breeze off Niagara River. Snow tapered off before we began to sample

Crew Chief Signature: John M Gaynor Date: 12-5-90

FB 1775

* Old lock would not come off so we cut it & replaced it

C-7

WELL SAMPLING LOG

Date: 12-5-90
Crew: JG, JM'K
Job No: 576-043
Project: NYSDEC
Project Site: Brezinski Ldfl

METERS USED
Temp: 134 / DEC TLC #560
pH: DEC Hydac / CP 106
Cond: DEC TLC #560 / DEC Hydac
Turb: DEC HF DRT 15c

Well ID No: GWBZ-4
Well Condition: Good
Well Depth/Diameter: 23.66' / 2"
Well Casing Type: PVC
Screened Interval:
Casing Ht/Lock No: steel PVC 2.45' 2.28' / #3252
Reference Pt: Top of PVC Casing
Depth to Water (DTW): 9.85'
Water Column; Ht/Vol: 13.81' / 2.35 gal (2" well)
Purge Est: 13.81 x 1.05 = 14.5 gal (5" Borehole)
14.5 x 4 = 58 gal
Purge Date/Time(s): 12-5-90 / 1429-1511, 1520-1542
Purge Method: Centrifugal Pump w/ Dedicated Polyethylene Tubing
Purge Depth(s): Bottom → Surf → Bottom
Purge Rates (gpm): 1.5 gpm ; 1 gpm
Purged Volume: 75 gal
DTW After Purging: > 1.30'

DTW Before Sampling: 10.21'
Sample Date/Time(s): 12-5-90 / 1620-1650
Sampling Method: Teflon Bailer (#II)
Sampling Depth(s): Surface
DTW After Sampling: — No apparent drawdown during sampling
Sampling Observations: very slightly turbid slight sulfur odor
Chain-of-Custody No(s): —
Analytical Lab(s): Aquatec

Yield Rate: (L) M H

Purge Observations: Turbid, black @ first. Clears up w/ constant pumping but quickly becomes turbid with surging of the tubing

PURGE CHEMISTRIES

VOL.	TEMP. (°C)	pH	SP. COND.	TURB.
6 gal	10.8°	7.6	1580	200+
23 gal	10.9°	7.5	1527	"
40 gal	10.8°	7.4	1658	35 — not surged
45-8	10.8°	7.4	1711	200+ - surged
70 gal.	10.8°	7.3	1710	43

WET SAMPLE CHEMISTRIES

	Temp. (°C)	pH	Sp. Cond.	Turb.
Start	9.8	7.5	1445	71
End	12.6	7.3/7.3	1577	62

QC 1054/1072 @ 2.4°

SAMPLE ANALYSES

Parameters	Inv. No.	Pres. Meth.	Filt. (Y/N)
VOC's TCL+10		4°	N
BNA's TCL+20		↓	↓
Pest/PCB's TCL		↓	↓
Metals TCL		HNO_3	↓
Cyanide TCL		NaOH	↓
COD		H_2SO_4	↓
TSS		4°	↓
TDS, pH Sp Cond		↓	↓

NTU 70

Comments:
Purged dry @ 55 gal. Let well recover & purged @ 1 gpm. Purged water appears a little foamy when agitated

Air Temp: 25-30° F
Weather Conditions: Mostly Cloudy, Windy off Niagara River

Crew Chief Signature: John M Guyniel Date: 12-5-90

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WELL SAMPLING LOG

Date: 12-6-90
Crew: JMG JMcK
Job No: 576-043
Project: NYSDEC
Project Site: Brzezinski Landfl

Well ID No: GWBZ-5
Well Condition: Good
Well Depth/Diameter: 21.87 / 2"
Well Casing Type: PVC
Screened Interval:
Casing Ht/Lock No: steel 2.99' PVC 2.95' / # 5252
Reference Pt: Top of PVC Casing
Depth to Water (DTW): 5.44'
Water Column; Ht/Vol: 16.43' / 2.8 gal
Purge Est: 16.43 x 1.05 = 17.25
17.25 x 4 = 69 gal
Purge Date/Time(s): 12-6-90 / 0955-0920, 1030-1044
Purge Method: PVC Bailer
Purge Depth(s): Surf → Bottom (Dryness)
Purge Rates (gpm): —
Purged Volume: 19 gal
DTW After Purging: Dry

Yield Rate: (L) M-H
Purge Observations: Rather clear @ first, then more turbid, tan as we purged near bottom

METERS USED

Temp: 134
pH: DEC Hydac
Cond: DEC D8974909
Turb: DEC HF DRT 15C

DTW Before Sampling: 6.24
Sample Date/Time(s): 12-6-90 / 1244-1314
Sampling Method: Teflon Bailer (#24)
Sampling Depth(s): Surface
DTW After Sampling: drew down ~ 0.5' during sampling
Sampling Observations: Very slightly turbid no noticeable odor
Chain-of-Custody No(s): —
Analytical Lab(s): Aquatec.

WET SAMPLE CHEMISTRIES

	Temp. (°C)	pH	Sp. Cond.	Turb.
Start	9.5°	7.1	2560	29
End	9.7	7.1	2520	26

PURGE CHEMISTRIES

VOL.	TEMP. (°C)	pH (TP / CP / LB)	SP. COND.	TURB.
2 gal	10.6°	7.0/7.2	1895	24
11 gal	11.2°	7.3/7.4	1737	same
18 gal	11.1°	7.5	2070	" "

SAMPLE ANALYSES

Parameters	Inv. No.	Pres. Meth.	Filt. (Y/N)
VOCs TCL+10		4°	N
BNAs TCL+20		↓	↓
Pest/PCBs TCL		↓	↓
Metals TCL		HNO_3	↓
Cyanide TCL		NaOH	↓
COD		H_2SO_4	↓
TSS		4°	↓
TDS, pH, Sp Cond		↓	↓

Comments:
Purged to dryness @ 12 gal., let well recover + purged dry again (7 more gal.)
DTW: 9.30' @ 1030 (before 2nd purge)

Air Temp: 25-35° F
Weather Conditions: Overcast, Sl. breeze

Crew Chief Signature: John M Gugenheim Date: 12-6-90

Date: 12-6-90
Crew: JMG JMcK
Site: Brzezinski
Oper: Sampling

LAWLER, MATUSKY & SKELLY ENGINEERS
FIELD DATA SHEET FOR SURFACE WATER
Job No: 576-043

pH No: DEC Hydac/CP 106
Thermometer No: 134
Turb. SCT No: DEC TLC#560/DEC Hyd
~~Velocity~~ Meter No: DEC HF DAT 15C

STA. NO.	SAMPLE DEPTH (ft/in)	TIME (HHMM)	TEMP. (°C)	pH	SP. COND. (µmhos/cm)	TURB. (NTUs) ~~FLOW~~ MGS.	CRK. DPTH ft INT. (Rt-Lft) (ft/in)	CRK. WDTH (ft)	SAMPLE BOTTLES: SAMPLE PARAMETERS	BOT. Nos.	SAMPLE PARAMETERS	BOT. Nos.	COMMENTS
SWBZ-2B	Surf.	1155	4.5°	8.3/8.5	347 ac cond 200/224 @ 4.0°C	35			VOCs TCL[10]	02	Cyanide TCL	01	Sample collected from Niagara River e western edge of site @ base of rip rap. Collected directly into sample bottles
									BNAs TCL[20]	01	COD	01	
									Pest/PCBs TCL	01	TSS	01	
									Metals TCL	01	TDS, pH, Sp Cond	01	
SWBZ 1B	Surf.	1430	4.4°	8.5/8.4	378 ac cond 230/235 @ 4.0°	27			VOCs TCL[10]	02	Cyanide TCL	01	Sample collected @ edge of rip rap just east of "Slip". Samples collected directly into sample jars
									BNAs TCL[20]	01	COD	01	
									Pest/PCBs TCL	01	TSS	01	
									Metals TCL	01	TDS, pH, Sp Cond	01	
SWBZ-1B MS/MSD	↓	↓	↓	↓	↓	↓			VOCs TCL[10]	02	Cyanide TCL	01	↓
									BNAs TCL[20]	01			
									Pest/PCBs TCL	01			
or QC									Metals TCL	01			

John M Gruzinski 12-6-90

Date: 12-6-90
Crew: JmG, JmcK
Site: Brzezinski Landfill

LAWLER, MATUSKY & SKELLY ENGINEERS
FIELD DATA SHEET FOR (SOIL) / SEDIMENT SAMPLES
Job No: 576-043

Oper: Sampling
Thermometer No: ____

STA. NO.	TIME	SMPL DPTH	METHOD	TEXT.	CLR.	ODOR	SAMPLE BOTTLES: SAMPLE PARAMETERS	BOT. Nos.	SAMPLE PARAMETERS	BOT. Nos.	COMMENTS
SDBZ-2B	1130	0-3"	S/S Ladle	Coarse Sediment w/ many sm pebbles + some rocks	Grey-BK mottled w/ red + brn tones	None	VOCs TCL+10	02	Metals TCL	01	* I tried to keep big pebbles + rocks out of sample jars
							BNAs TCL+20	01	Cyanide TCL	↓	
							Pest/PCBs TCL	↓			
↓	–	–	–	–	–	–					Sample collected @ base of rip rap near western edge of site
↓	–	–	–	–	–	–					We put a flagged dowel on top of rip rap where sample collected
SDBZ-1B	1420	0-3"	S/S Ladle	Med. to fine Sandy soil w/ some silt. Many pebbles + some rocks	Gry-BK pebbles + rocks are red, brn tones	None	VOC's TCL+10	02	Metals TCL	01	We tried to keep pebbles rocks out of sample jars. Samples collected @ base of rip rap just east of "slip"
							BNAs TCL+20	01	Cyanide TCL	↓	
							Pest/PCBs TCL	↓			
SSBZ-10	1610	0-6"	S/S Spoon	High clay content soil, some roots + a little fine sand + silt	Brn-red	Dirt	VOCs TCL+10	02	Metals TCL	01	Collected on east side of Williams Street ~200-300' north of the intersection of River Rd
							BNAs TCL+20	01	Cyanide TCL	↓	
							Pest/PCBs TCL	↓			
SSBZ-10 MS/MSD	↓	"	"	↓	↓	↓	VOCs TCL+10	02	Metals TCL	01	+ Williams. Collected ~30' from side of road near telephone pole right of way
							BNAs TCL+20	01	Cyanide TCL	↓	
							Pest/PCBs	↓			

John M Gryzenia 12-6-90

A-11

Crew: JMG JMcK
Date: 12-5/12-6/90
Job No: 576-013

LAWLER, MATUSKY & SKELLY ENGINEERS
FIELD METER CALIBRATION AND/OR CHECK
DATA SHEET

Site: Brzezinski LOF1
Oper: Sampling
Calib. By: JMG/JMcK

	METER No./ PROBE No.	TIME	THERM No./ TEMP. (°C)	EXPECTED VALUE	OBSERVED VALUE	% DIFF.*	Adj.	COMMENTS
12-5	DEC Hydrolab	0815	11.2°	7.00 | 4.00 / 10.00	7.01 | 4.03 / 10.01	7.00	4.00 / —	14.3 6.68→7.00
↓	pH	1655	2.1°	7.00 | 4.00 / 10.00	7.20 | 4.10 / 9.84	7.00	4.00 / —	
12-6		0825		7.00 | 4.00 / 10.00	6.68 | 3.87 / 9.73	7.00	4.00 /	
↓		1550		[illegible]	[illegible]	7.00	[illegible]	
12-5	CP 106	0815	11.2°	7.0 | 4.0 / 10.0	7.3 | 4.2 / 9.9	7.0	— / —	6.9→7.0
↓	pH	1655	2.1°	7.0 | 4.0 / 10.0	7.5 | 4.2 / 9.8	7.0	— / —	
12-6		0825	14.4°	7.0 | 4.0 / 10.0	6.4 | 4.1 / 9.9	7.0	— / —	✓
↓		1550	[illegible]	[illegible]	[illegible]	7.0		
12-5	DEC HF DRTISI	0820		100 | 10 / 1.0	96 | 8 / 1.0	— *	— / —	* No more adj
↓	Turb.	1650		100 | 10 / 1.0	87 | 8 / 1	— *	— / —	* No more adj
12-6		0835		100 | 10 / 1.0	84 | 7 /	- *	/	* No more adj.
↓		1550		100 | 10 /	83 | 7 /	— *		* No more adj

*Include % Diff. calculation for conductivity calibration checks: % Diff = $\frac{Ex - Ob}{Ex}$ X 100
For dissolved oxygen and pH meter calibrations. record adjustments in comment section.

E-12

Date: 12-6-90
Crew: JMG JMcK
Job No. : 576-093

LAWLER, MATUSKY & SKELLY ENGINEERS
WELL SAMPLING FIELD DATA

pH Meter: —
Thermometer No.: —
SCT No.: —

Well Number	GWBZ-4	PZ-6	PZ-3	PZ-2	GWBZ-3	GWBZ-2	PZ-4	PZ-5	GWBZ-5	PZ-1	
Time	1509	1512	1515	1519	1523	1527	1532	1536	1540	1544	
Casing Ht. (PVC)	2.28'		0.86'	0.57'	1.78'	1.81'	3.25'	1.39'	2.46'	1.53'	
Static Water Level (ft/in)	10.01'	6.58'	8.17'	8.77'	10.72'	11.30'	8.59'	4.57'	5.73'	8.3[illegible]	
SWL After Bailing (ft/in)											
SWL After Sampling (ft/in)											
Sampling Depth (ft/in) S											
Sampling Depth (ft/in) B											
Casing Height (ft/in)											
Reference pt.	Top of PVC	—	—	—	—	—	—	—	—	—	→
Sample pH											
Sample Temperature (°C)											
Sample Specific Conductivity umhos/cm											
Sample Bottle Nos.											
Volatiles											
Acid/phenolics											
Base/neutrals											
Pesticide/PCBs											
Metals											
Phenols											
Cyanide											
Other - list											
Comments		Casing Bolt ran over lip. Grade 0.5' below grade									

C-17

APPENDIX F

APPENDIX F

ANALYTICAL DATA SUMMARY SHEETS

ANALYTICAL RESULTS

aquatec
ENVIRONMENTAL SERVICES
75 Green Mountain Drive, So. Burlington, VT 05403
TEL. 802/658-1074

NARRATIVE

aquatec
ENVIRONMENTAL SERVICES
75 Green Mountain Drive, So. Burlington, VT 05403
TEL. 802/658-1074

F-4

aquatec INC. ENVIRONMENTAL SERVICES

75 GREEN MOUNTAIN DRIVE, SOUTH BURLINGTON, VERMONT 05403, TELEPHONE (802) 658-1074

January 18, 1991

RECEIVED
JAN 21 1991
LMS ENGINEERS

William Ahlert, Ph.D.
Lawler, Matusky & Skelly Engineers
One Blue Hill Plaza
P.O. Box 1509
Pearl River, NY 10965

Re: Aquatec Project No. 89133
Analytical Services Subcontract to LMS/NYSDEC
Contract No. D001918, Amendment 3
Case No. 24232; SDG No. 125244
ETR No's. 24232 and 24255

Dear Dr. Ahlert:

Enclosed are the results of analyses performed on Brzezinski site water samples received from LMS.

The samples were received intact on December 6 and 7, 1990. Laboratory numbers were assigned to the samples and were designated as follows:

Aquatec ETR No.	LMS Sample I.D.	Aquatec Lab No.	Sample Matrix
24232	Field Blank	125244	Water
	GWBZ-1	125245	Water
	GWBZ-2	125246	Water
	GWBZ-2	125247	Filtrate
	GWBZ-3	125248	Water
	GWBZ-4	125249	Water
24255	Trip Blank	125321	Water
	GWBZ-5	125322	Water
	SWBZ-1B	125323	Water
	SWBZ-2B	125324	Water

Additional quantities of SWBZ-1B were submitted to the laboratory for quality control (QC) analyses. Subsamples of SWBZ-1B used for QC analyses were logged into the laboratory for the purpose of internal sample tracking. These QC samples were assigned the laboratory numbers 125323MS (matrix spike), 125323MD (matrix spike duplicate), and 125323DP (duplicate).

The volatile organic analyses performed on samples GWBZ-1 and GWBZ-2 yielded a surrogate recovery for toluene-d_8 of 87% in both samples. These recoveries fell just outside of the toluene-d_8

acceptable recovery range of 88-110 percent. There were no TCL volatile organic compounds observed in the chromatographic vicinity of toluene-d_8 in the analysis of GWBZ-1, whereas trace amounts of toluene, ethylbenzene, and xylenes were detected in the analysis of GWBZ-2. The matter was communicated to you on December 13, 1990 when it was decided that a reanalysis of the samples was not required since the surrogate recoveries were just out of the acceptable range and the samples were, for the most part, clean with respect to volatile organics. Therefore, the results of these analyses have been formalized for this submittal.

An additional qualifier has been used in reporting the pesticide/PCB results. It is listed and defined as follows:

Y - The reported pesticide/PCB result is below the adjusted contract reporting limit.

A trace amount (less than one half of the detection limit) of what appears to be Aroclor 1254 was detected in sample GWBZ-1. Because of the very low concentration the result was not recorded on the Form I summary.

The recovery of silver was out of the specified tolerances in the matrix spike analysis of sample SWBZ-1B (Lab No. 125323MS). Additionally, the results for mercury and zinc did not correspond well in the replicate analysis of SWBZ-1B. The analytical results have been qualified accordingly.

Sincerely,

Joseph Comeau

Joseph K. Comeau, Ph.D.
Vice President
Chemistry Division

JKC/amp

Enclosure

89133B18JAN91

ANALYTICAL RESULTS

aquatec
ENVIRONMENTAL SERVICES
75 Green Mountain Drive, So. Burlington, VT 05403
TEL. 802/658-1074

F-7

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 125244

SOW No.: _____

EPA Sample No.	Lab Sample ID.
Field Blank	125244
GWBZ-1	125245
GWBZ-2	125246
GWBZ-2Fil	125247
GWBZ-3	125248
GWBZ-4	125249
GWBZ-5	125322
SWBZ-1B	125323
SWBZ-1BD	125323DP
SWBZ-1BS	125323MS
SWBZ-2B	125324

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JAN 2 1 1989
LMS ENGINEERS

Were ICP interelement corrections applied? Yes/No No

Were ICP background corrections applied? Yes/No Yes
If yes-were raw data generated before application of background corrections? Yes/No No

Comments:

Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Lab Manager: Joseph Connor

Date: 1/18/91

QUALIFIERS FOR METALS ANALYSIS

E - The reported value is estimated because of the presence of interference.

M - Duplicate injection precision not met.

N - Matrix spiked sample recovery not within control limits.

S - The reported value was determined by the Method of Standard Additions.

+ - Correlation coefficient for the MSA is less than 0.995.

W - Post digestion spike for Furnace AA analysis is out of control limits (85-115%), while sample absorbance is less than 50% of spike absorbance.

* - Duplicate analysis not within control limits.

Concentration Qualifiers

B - Entered if the reported value is less than the Contract Required Detection Limit (CRDL) but greater than the Instrument Detection Limit (IDL).

U - Entered if the analyte was analyzed for but not detected, less than CRDL.

90902D14NOV90

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

Field Blank

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 125244

Matrix (soil/water): WATER Lab Sample ID: 125244

Level (low/med): _____ Date Received: 12/06/90

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	M	Q
7429-90-5	Aluminum	200	U	F	P
7440-36-0	Antimony	60.0	U		P
7440-38-2	Arsenic	10.0	U		F
7440-39-3	Barium	200	U		P
7440-41-7	Beryllium	5.0	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	5000	U		P
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt	50.0	U		P
7440-50-8	Copper	25.0	U		P
7439-89-6	Iron	100	U		P
7439-92-1	Lead	5.0	U	S	F
7439-95-4	Magnesium	5000	U		P
7439-96-5	Manganese	15.0	U		P
7439-97-6	Mercury	0.20	U	*	CV
7440-02-0	Nickel	40.0	U		P
7440-09-7	Potassium	5000	U		P
7782-49-2	Selenium	5.0	U		F
7440-22-4	Silver	10.0	U	N	P
7440-23-5	Sodium	5000	U		P
7440-28-0	Thallium	10.0	U		F
7440-62-2	Vanadium	50.0	U		P
7440-66-6	Zinc	20.0	U	*	P
	Cyanide	10.0	U		C

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: GWBZ-1

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 125244

Matrix (soil/water): WATER Lab Sample ID: 125245

Level (low/med): _____ Date Received: 12/06/90

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	M	Q
7429-90-5	Aluminum	551		E	P
7440-36-0	Antimony	60.0	U		P
7440-38-2	Arsenic	10.0	U		F
7440-39-3	Barium	200	U		P
7440-41-7	Beryllium	5.0	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	80100			P
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt	50.0	U		P
7440-50-8	Copper	25.0	U		P
7439-89-6	Iron	4450			P
7439-92-1	Lead	1.8	B	S	F
7439-95-4	Magnesium	21200			P
7439-96-5	Manganese	171			P
7439-97-6	Mercury	0.20	U	*	CV
7440-02-0	Nickel	40.0	U		P
7440-09-7	Potassium	6960			P
7782-49-2	Selenium	5.0	U	W	F
7440-22-4	Silver	10.0	U	N	P
7440-23-5	Sodium	43200			P
7440-28-0	Thallium	10.0	U	W	F
7440-62-2	Vanadium	50.0	U		P
7440-66-6	Zinc	20.0	U	*	P
_____	Cyanide	10.0	U		C
_____	_____	_____		_____	

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: GWBZ-2

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 125244

Matrix (soil/water): WATER Lab Sample ID: 125246

Level (low/med): _____ Date Received: 12/06/90

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	M	Q
7429-90-5	Aluminum	3940		E	P
7440-36-0	Antimony	60.0	U		P
7440-38-2	Arsenic	3.7	B		F
7440-39-3	Barium	740			P
7440-41-7	Beryllium	5.0	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	237000			P
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt	50.0	U		P
7440-50-8	Copper	25.0	U		P
7439-89-6	Iron	31100			P
7439-92-1	Lead	5.9		S	F
7439-95-4	Magnesium	67500			P
7439-96-5	Manganese	635			P
7439-97-6	Mercury	0.20	U	*	CV
7440-02-0	Nickel	40.0	U		P
7440-09-7	Potassium	17000			P
7782-49-2	Selenium	50.0	U	W	F
7440-22-4	Silver	10.0	U	N	P
7440-23-5	Sodium	103000			P
7440-28-0	Thallium	10.0	U	W	P
7440-62-2	Vanadium	50.0	U		P
7440-66-6	Zinc	35.7		*	P
_____	Cyanide	10.0	U		C
_____	_____	_____		_____	

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: GWBZ-2Fil

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 125244

Matrix (soil/water): WATER Lab Sample ID: 125247

Level (low/med): _____ Date Received: 12/06/90

% Solids: 0.0 Dup of F14

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

CAS No.	Analyte	Concentration	C	M	Q
7429-90-5	Aluminum	200	U	E	P
7440-36-0	Antimony	60.0	U		P
7440-38-2	Arsenic	10.0	U	W	F
7440-39-3	Barium	679			P
7440-41-7	Beryllium	5.0	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	239000			P
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt	50.0	U		P
7440-50-8	Copper	25.0	U		P
7439-89-6	Iron	21300			P
7439-92-1	Lead	5.0	U	S	F
7439-95-4	Magnesium	68500			P
7439-96-5	Manganese	579			P
7439-97-6	Mercury	0.21		*	CV
7440-02-0	Nickel	40.0	U		P
7440-09-7	Potassium	16200			P
7782-49-2	Selenium	50.0	U	W	F
7440-22-4	Silver	10.0	U	N	P
7440-23-5	Sodium	104000			P
7440-28-0	Thallium	10.0	U	W	F
7440-62-2	Vanadium	50.0	U		P
7440-66-6	Zinc	20.0		*	P
	Cyanide				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: GWBZ-3

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 125244

Matrix (soil/water): WATER Lab Sample ID: 125248

Level (low/med): _____ Date Received: 12/06/90

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	M	Q
7429-90-5	Aluminum	404		E	P
7440-36-0	Antimony	60.0	U		P
7440-38-2	Arsenic	10.0	U		F
7440-39-3	Barium	200	U		P
7440-41-7	Beryllium	5.0	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	76600			P
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt	50.0	U		P
7440-50-8	Copper	25.0	U		P
7439-89-6	Iron	4370			P
7439-92-1	Lead	2.6	B	S	F
7439-95-4	Magnesium	20200			P
7439-96-5	Manganese	170			P
7439-97-6	Mercury	0.31		*	CV
7440-02-0	Nickel	40.0	U		P
7440-09-7	Potassium	7000			P
7782-49-2	Selenium	5.0	U	W	F
7440-22-4	Silver	10.0	U	N	P
7440-23-5	Sodium	41600			P
7440-28-0	Thallium	10.0	U	W	F
7440-62-2	Vanadium	50.0	U		P
7440-66-6	Zinc	20.0	U	*	P
_____	Cyanide	10.0	U		C
_____	_____	_____	_	_____	_

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

_____

_____

_____

_____

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: GWBZ-4

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 125244

Matrix (soil/water): WATER Lab Sample ID: 125249

Level (low/med): _____ Date Received: 12/06/90

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	M	Q
7429-90-5	Aluminum	1780		E	P
7440-36-0	Antimony	60.0	U		P
7440-38-2	Arsenic	10.0	U		F
7440-39-3	Barium	206			P
7440-41-7	Beryllium	5.0	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	216000			P
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt	50.0	U		P
7440-50-8	Copper	25.0	U		P
7439-89-6	Iron	10000			P
7439-92-1	Lead	7.0		S	F
7439-95-4	Magnesium	64800			P
7439-96-5	Manganese	941			P
7439-97-6	Mercury	0.27		*	CV
7440-02-0	Nickel	40.0	U		P
7440-09-7	Potassium	25500			P
7782-49-2	Selenium	50.0	U	W	F
7440-22-4	Silver	10.0	U	N	P
7440-23-5	Sodium	45000			P
7440-28-0	Thallium	10.0	U	W	F
7440-62-2	Vanadium	50.0	U		P
7440-66-6	Zinc	68.4		*	P
	Cyanide	10.0	U		C

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: PBW1

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 125244

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

Level (low/med): _____ Date Received: _____

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	M	Q
7429-90-5	Aluminum	51.6	U	E	P
7440-36-0	Antimony	44.5	U		P
7440-38-2	Arsenic	3.1	U		F
7440-39-3	Barium	79.8	U		P
7440-41-7	Beryllium	2.1	B		P
7440-43-9	Cadmium	4.5	U		P
7440-70-2	Calcium	-888	B		P
7440-47-3	Chromium	5.6	U		P
7440-48-4	Cobalt	16.1	U		P
7440-50-8	Copper	8.5	U		P
7439-89-6	Iron	-20.6	B		P
7439-92-1	Lead	0.80	U		F
7439-95-4	Magnesium	-358	B		P
7439-96-5	Manganese	2.1	U		P
7439-97-6	Mercury	0.15	U	*	CV
7440-02-0	Nickel	12.6	U		P
7440-09-7	Potassium	445	B		P
7782-49-2	Selenium	1.4	U		F
7440-22-4	Silver	8.7	U	N	P
7440-23-5	Sodium	318	U		P
7440-28-0	Thallium	1.5	U		F
7440-62-2	Vanadium	8.0	U		P
7440-66-6	Zinc	5.8	U	*	P
	Cyanide	10.0	U		C

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: GWBZ-5

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 125244

Matrix (soil/water): WATER Lab Sample ID: 125322

Level (low/med): _____ Date Received: 12/07/90

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	M	Q
7429-90-5	Aluminum	421		E	P
7440-36-0	Antimony	60.0	U		P
7440-38-2	Arsenic	10.0	U		F
7440-39-3	Barium	200	U		P
7440-41-7	Beryllium	5.0	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	244000			P
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt	50.0	U		P
7440-50-8	Copper	25.0	U		P
7439-89-6	Iron	17500			P
7439-92-1	Lead	5.0	U	S	F
7439-95-4	Magnesium	89700			P
7439-96-5	Manganese	3540			P
7439-97-6	Mercury	0.20	U	*	CV
7440-02-0	Nickel	40.0	U		P
7440-09-7	Potassium	5000	U		P
7782-49-2	Selenium	25.0	U	W	F
7440-22-4	Silver	10.0	U	N	P
7440-23-5	Sodium	252000			P
7440-28-0	Thallium	50.0	U	W	F
7440-62-2	Vanadium	50.0	U		P
7440-66-6	Zinc	20.0	U	*	P
	Cyanide	10.0	U		C

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SWBZ-1B

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 125244

Matrix (soil/water): WATER Lab Sample ID: 125323

Level (low/med): _____ Date Received: 12/07/90

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	M	Q
7429-90-5	Aluminum	1040		E	P
7440-36-0	Antimony	60.0	U		P
7440-38-2	Arsenic	10.0	U	W	F
7440-39-3	Barium	200	U		P
7440-41-7	Beryllium	5.0	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	42600			P
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt	50.0	U		P
7440-50-8	Copper	25.0	U		P
7439-89-6	Iron	1150			P
7439-92-1	Lead	2.4	B	S	F
7439-95-4	Magnesium	10000			P
7439-96-5	Manganese	28.3			P
7439-97-6	Mercury	0.20	U	*	CV
7440-02-0	Nickel	40.0	U		P
7440-09-7	Potassium	5000	U		P
7782-49-2	Selenium	5.0	U		F
7440-22-4	Silver	10.0	U	N	P
7440-23-5	Sodium	18200			P
7440-28-0	Thallium	10.0	U	W	F
7440-62-2	Vanadium	50.0	U		P
7440-66-6	Zinc	26.7		*	P
_____	Cyanide	10.0	U		C
_____	_____	_____		_____	

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: SWBZ-1BS

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 125244

Matrix (soil/water): WATER Lab Sample ID: 125323MS

Level (low/med): _____ Date Received: 12/07/90

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	M	Q
7429-90-5	Aluminum	2770		E	P
7440-36-0	Antimony	467			P
7440-38-2	Arsenic	43.7			F
7440-39-3	Barium	1910			P
7440-41-7	Beryllium	43.8			P
7440-43-9	Cadmium	45.0			P
7440-70-2	Calcium				NR
7440-47-3	Chromium	186			P
7440-48-4	Cobalt	463			P
7440-50-8	Copper	234			P
7439-89-6	Iron	1960			P
7439-92-1	Lead	24.3		S	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese	500			P
7439-97-6	Mercury	1.1		*	CV
7440-02-0	Nickel	453			P
7440-09-7	Potassium				NR
7782-49-2	Selenium	8.6			F
7440-22-4	Silver	36.3		N	P
7440-23-5	Sodium				NR
7440-28-0	Thallium	50.8		S	F
7440-62-2	Vanadium	490			P
7440-66-6	Zinc	526		*	P
	Cyanide	101			C

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: SWBZ-1BD

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 125244

Matrix (soil/water): WATER Lab Sample ID: 125323DP

Level (low/med): _____ Date Received: 12/07/90

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	M	Q
7429-90-5	Aluminum	1030		E	P
7440-36-0	Antimony	60.0	U		P
7440-38-2	Arsenic	10.0	U	W	F
7440-39-3	Barium	200	U		P
7440-41-7	Beryllium	5.0	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	44200			P
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt	50.0	U		P
7440-50-8	Copper	25.0	U		P
7439-89-6	Iron	1110			P
7439-92-1	Lead	2.5	B	S	F
7439-95-4	Magnesium	10100			P
7439-96-5	Manganese	28.0			P
7439-97-6	Mercury	0.44		*	CV
7440-02-0	Nickel	40.0	U		P
7440-09-7	Potassium	5000	U		P
7782-49-2	Selenium	5.0	U	W	F
7440-22-4	Silver	10.0	U	N	P
7440-23-5	Sodium	18200			P
7440-28-0	Thallium	10.0	U	W	F
7440-62-2	Vanadium	50.0	U		P
7440-66-6	Zinc	20.0	U	*	P
	Cyanide	10.0	U		C

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: SWBZ-2B

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 125244

Matrix (soil/water): WATER Lab Sample ID: 125324

Level (low/med): _____ Date Received: 12/07/90

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	M	Q
7429-90-5	Aluminum	1100		E	P
7440-36-0	Antimony	60.0	U		P
7440-38-2	Arsenic	10.0	U	W	F
7440-39-3	Barium	200	U		P
7440-41-7	Beryllium	5.0	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	40000			P
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt	50.0	U		P
7440-50-8	Copper	25.0	U		P
7439-89-6	Iron	1180			P
7439-92-1	Lead	2.4	B	S	F
7439-95-4	Magnesium	9190			P
7439-96-5	Manganese	27.6			P
7439-97-6	Mercury	0.20	U	*	CV
7440-02-0	Nickel	40.0	U		P
7440-09-7	Potassium	5000	U		P
7782-49-2	Selenium	5.0	U		F
7440-22-4	Silver	10.0	U	N	P
7440-23-5	Sodium	15100			P
7440-28-0	Thallium	10.0	U	W	F
7440-62-2	Vanadium	50.0	U		P
7440-66-6	Zinc	20.0	U	*	P
	Cyanide	10.0	U		C

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: PBW2

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 125244

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

Level (low/med): _____ Date Received: _____

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	M	Q
7429-90-5	Aluminum	87.2	U	E	P
7440-36-0	Antimony	55.1	U		P
7440-38-2	Arsenic	3.1	U		F
7440-39-3	Barium	24.4	U		P
7440-41-7	Beryllium	2.2	U		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	404	U		P
7440-47-3	Chromium	9.4	U		P
7440-48-4	Cobalt	21.2	U		P
7440-50-8	Copper	20.0	U		P
7439-89-6	Iron	36.4	U		P
7439-92-1	Lead	0.80	U		F
7439-95-4	Magnesium	490	U		P
7439-96-5	Manganese	6.3	U		P
7439-97-6	Mercury				NR
7440-02-0	Nickel	24.8	U		P
7440-09-7	Potassium	620	U		P
7782-49-2	Selenium	1.4	U		F
7440-22-4	Silver	8.8	U	N	P
7440-23-5	Sodium	387	U		P
7440-28-0	Thallium	1.5	U		F
7440-62-2	Vanadium	34.0	U		P
7440-66-6	Zinc	11.7	U	*	P
	Cyanide	10.0	U		C

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

aquatec
ENVIRONMENTAL SERVICES
75 Green Mountain Drive, So. Burlington, VT 05403
TEL. 802/658-1074

ANALYTICAL REPORT

Lawler,Matusky,and
Skelly Engineers
P.O.Box 1509
Pearl River, NY 10965

Attention : Dr.William Ahlert

Date : 01/07/91
ETR Number : 24232
Project No.: 89133
No. Samples: 6
Arrived : 12/06/90
P.O. Number: *

Brzezinski Waters SDG:125244

Standard analyses were performed in accordance with Methods for Analysis of Water and Wastes, EPA-600/4/79-020, Test Methods for Evaluating Solid Waste, SW-846, or Standard Methods for the Examination of Water and Wastewater.
All results are in mg/l unless otherwise noted.

Lab No./ Method No.	Sample Description/ Parameter		Result
125245	GWBZ-1:(Water)		
	120.1	Conductivity (umhos/cm)	753
	160.1	Total Dissolved Solids	437
	160.2	Total Suspended Solids	24
	410.1	Chemical Oxygen Demand	20.7
	150.1	pH (std. units)	7.06
125246	GWBZ-2:(Water)		
	120.1	Conductivity (umhos/cm)	1860
	160.1	Total Dissolved Solids	1140
	160.2	Total Suspended Solids	256
	410.1	Chemical Oxygen Demand	53.3
	150.1	pH (std. units)	6.96
125248	GWBZ-3:(Water)		
	120.1	Conductivity (umhos/cm)	731
	160.1	Total Dissolved Solids	432
	160.2	Total Suspended Solids	21
	410.1	Chemical Oxygen Demand	19.2
	150.1	pH (std. units)	7.08
125249	GWBZ-4:(Water)		
	120.1	Conductivity (umhos/cm)	1630
	160.1	Total Dissolved Solids	1020
	160.2	Total Suspended Solids	90
	410.1	Chemical Oxygen Demand	43.8
	150.1	pH (std. units)	6.98

< Last Page > Submitted By : Aquatec Inc.

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ENVIRONMENTAL SERVICES
75 Green Mountain Drive, So. Burlington, VT 05403
TEL. 802/658-1074

ANALYTICAL REPORT

Lawler,Matusky,and
Skelly Engineers
P.O.Box 1509
Pearl River, NY 10965

Attention : Dr.William Ahlert

Date : 01/07/91
ETR Number : 24255
Project No.: 89133
No. Samples: 7
Arrived : 12/07/90
P.O. Number: *

Brzezinski Waters SDG:125244

Standard analyses were performed in accordance with Methods for Analysis of Water and Wastes, EPA-600/4/79-020, Test Methods for Evaluating Solid Waste, SW-846, or Standard Methods for the Examination of Water and Wastewater.
All results are in mg/l unless otherwise noted.

Lab No./ Method No.	Sample Description/ Parameter	Result
125322	GWBZ-5:(Water)	
120.1	Conductivity (umhos/cm)	2790
160.1	Total Dissolved Solids	1590
160.2	Total Suspended Solids	50
410.1	Chemical Oxygen Demand	47.7
150.1	pH (std. units)	6.78
125323	SWBZ-1B:(Water)	
120.1	Conductivity (umhos/cm)	412
160.1	Total Dissolved Solids	214
160.2	Total Suspended Solids	19
410.1	Chemical Oxygen Demand	10.5
150.1	pH (std. units)	7.92
125324	SWBZ-2B:(Water)	
120.1	Conductivity (umhos/cm)	364
160.1	Total Dissolved Solids	188
160.2	Total Suspended Solids	21
410.1	Chemical Oxygen Demand	10.9
150.1	pH (std. units)	8.00

 Submitted By : Aquatec Inc.

F-24

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELD BLANK

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water) WATER Lab Sample ID: 125244

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D125244V

Level: (low/med) LOW Date Received: 12/06/90

% Moisture: not dec._____ Date Analyzed: 12/13/90

Column: (pack/cap) PACK Dilution Factor: 1.0

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	2	BJ
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

FIELD BLANK

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water) WATER Lab Sample ID: 125244

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D125244V

Level: (low/med) LOW Date Received: 12/06/90

% Moisture: not dec._____ Date Analyzed: 12/13/90

Column: (pack/cap) PACK Dilution Factor: 1.0

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

EPA SAMPLE NO.

GWBZ-1

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water) WATER Lab Sample ID: 125245

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D125245V

Level: (low/med) LOW Date Received: 12/06/90

% Moisture: not dec. _____ Date Analyzed: 12/13/90

Column: (pack/cap) PACK Dilution Factor: 1.0

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	7	J
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	2	J
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

GWBZ-1

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water) WATER Lab Sample ID: 125245

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D125245V

Level: (low/med) LOW Date Received: 12/06/90

% Moisture: not dec._____ Date Analyzed: 12/13/90

Column: (pack/cap) PACK Dilution Factor: 1.0

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

EPA SAMPLE NO.

GWBZ-2

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water) WATER Lab Sample ID: 125246

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D125246V

Level: (low/med) LOW Date Received: 12/06/90

% Moisture: not dec._____ Date Analyzed: 12/13/90

Column: (pack/cap) PACK Dilution Factor: 1.0

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	30	
75-09-2	Methylene Chloride	2	BJ
67-64-1	Acetone	4	BJ
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	2	J
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	1	J
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	2	J
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	6	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

GWBZ-2

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water) WATER Lab Sample ID: 125246

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D125246V

Level: (low/med) LOW Date Received: 12/06/90

% Moisture: not dec._____ Date Analyzed: 12/13/90

Column: (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 6

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	74-98-6	PROPANE	1.75	10	J
2.		UNKNOWN ETHYLMETHYLBENZENE	27.30	10	J
3.	103-65-1	PROPYLBENZENE	30.70	6	J
4.	496-11-7	2,3-DIHYDRO-1H-INDENE	33.40	12	J
5.		UNKNOWN ETHYLMETHYLBENZENE	33.45	10	J
6.		UNKNOWN ETHYLMETHYLBENZENE	34.45	17	J
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GWBZ-3

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water) WATER Lab Sample ID: 125248

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D125247V

Level: (low/med) LOW Date Received: 12/06/90

% Moisture: not dec._____ Date Analyzed: 12/13/90

Column: (pack/cap) PACK Dilution Factor: 1.0

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	J
75-09-2	Methylene Chloride		5	U
67-64-1	Acetone		1	BJ
75-15-0	Carbon Disulfide		5	U
75-35-4	1,1-Dichloroethene		5	U
75-34-3	1,1-Dichloroethane		5	U
540-59-0	1,2-Dichloroethene (total)		1	J
67-66-3	Chloroform		5	U
107-06-2	1,2-Dichloroethane		5	U
78-93-3	2-Butanone		10	U
71-55-6	1,1,1-Trichloroethane		5	U
56-23-5	Carbon Tetrachloride		5	U
108-05-4	Vinyl Acetate		10	U
75-27-4	Bromodichloromethane		5	U
78-87-5	1,2-Dichloropropane		5	U
10061-01-5	cis-1,3-Dichloropropene		5	U
79-01-6	Trichloroethene		5	U
124-48-1	Dibromochloromethane		5	U
79-00-5	1,1,2-Trichloroethane		5	U
71-43-2	Benzene		5	U
10061-02-6	trans-1,3-Dichloropropene		5	U
75-25-2	Bromoform		5	U
108-10-1	4-Methyl-2-Pentanone		10	U
591-78-6	2-Hexanone		10	U
127-18-4	Tetrachloroethene		5	U
79-34-5	1,1,2,2-Tetrachloroethane		5	U
108-88-3	Toluene		5	U
108-90-7	Chlorobenzene		5	U
100-41-4	Ethylbenzene		5	U
100-42-5	Styrene		5	U
1330-20-7	Xylene (total)		5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

GWBZ-3

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water) WATER Lab Sample ID: 125248

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D125247V

Level: (low/med) LOW Date Received: 12/06/90

% Moisture: not dec. _____ Date Analyzed: 12/13/90

Column: (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN ETHYLMETHYLBENZENE	27.60	10	J
2.					
3.					
4.					
5.					
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GWBZ-4

Lab Name:AQUATEC, INC. Contract:89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water)WATER Lab Sample ID: 125249

Sample wt/vol: 5.0 (g/mL)ML Lab File ID: C125249V

Level: (low/med) LOW Date Received: 12/06/90

% Moisture: not dec._____ Date Analyzed: 12/13/90

Column: (pack/cap) PACK Dilution Factor: 1.0

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	2	BJ
67-64-1	Acetone	9	BJ
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	3	BJ
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

GWBZ-4

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water) WATER Lab Sample ID: 125249

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C125249V

Level: (low/med) LOW Date Received: 12/06/90

% Moisture: not dec._____ Date Analyzed: 12/13/90

Column: (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	60-29-7	ETHYL ETHER	9.65	14	J
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIP BLANK

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water) WATER Lab Sample ID: 125321

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C125321V

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec._____ Date Analyzed: 12/14/90

Column: (pack/cap) PACK Dilution Factor: 1.0

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	5	BJ
67-64-1	Acetone	2	BJ
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TRIP BLANK

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water) WATER Lab Sample ID: 125321

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C125321V

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec._____ Date Analyzed: 12/14/90

Column: (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GWBZ-5

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water) WATER Lab Sample ID: 125322

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D125322V

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec._____ Date Analyzed: 12/14/90

Column: (pack/cap) PACK Dilution Factor: 1.0

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	1	BJ
67-64-1	Acetone	4	BJ
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

GWBZ-5

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water) WATER Lab Sample ID: 125322

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D125322V

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec._____ Date Analyzed: 12/14/90

Column: (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
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3.					
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SWBZ-1B

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water) WATER Lab Sample ID: 125323

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C125323V

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec._____ Date Analyzed: 12/14/90

Column: (pack/cap) PACK Dilution Factor: 1.0

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	1	BJ
67-64-1	Acetone	3	BJ
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SWBZ-1B

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water) WATER Lab Sample ID: 125323

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C125323V

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec. _____ Date Analyzed: 12/14/90

Column: (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SWBZ-2B

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water) WATER Lab Sample ID: 125324

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D125324V

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec._____ Date Analyzed: 12/14/90

Column: (pack/cap) PACK Dilution Factor: 1.0

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	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SWBZ-2B

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water) WATER Lab Sample ID: 125324

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D125324V

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec._____ Date Analyzed: 12/14/90

Column: (pack/cap) PACK Dilution Factor: 1.0

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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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKJ6

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water) WATER Lab Sample ID: CNOB002CV

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CNOB002CV

Level: (low/med) LOW Date Received: 00/00/00

% Moisture: not dec._____ Date Analyzed: 12/13/90

Column: (pack/cap) PACK Dilution Factor: 1.0

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	1	J
67-64-1	Acetone	3	J
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	2	J
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKJ6

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water) WATER Lab Sample ID: CNOB002CV

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CNOB002CV

Level: (low/med) LOW Date Received: 00/00/00

% Moisture: not dec._____ Date Analyzed: 12/13/90

Column: (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	1.75-28-5	2-METHYLPROPANE	3.65	15	J
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKH9

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water) WATER Lab Sample ID: DPHB002LV

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: DPHB002LV

Level: (low/med) LOW Date Received: 00/00/00

% Moisture: not dec._____ Date Analyzed: 12/13/90

Column: (pack/cap) PACK Dilution Factor: 1.0

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	1	J
67-64-1	Acetone	1	J
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKH9

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water) WATER Lab Sample ID: DPHB002LV

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: DPHB002LV

Level: (low/med) LOW Date Received: 00/00/00

% Moisture: not dec._____ Date Analyzed: 12/13/90

Column: (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	75-28-5	2-METHYLPROPANE	4.80	6	J
2.					
3.					
4.					
5.					
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKJ9

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water) WATER Lab Sample ID: DPLB003AV

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: DPLB003AV

Level: (low/med) LOW Date Received: 00/00/00

% Moisture: not dec._____ Date Analyzed: 12/14/90

Column: (pack/cap) PACK Dilution Factor: 1.0

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	1	J
67-64-1	Acetone	1	J
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKJ9

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water) WATER Lab Sample ID: DPLB003AV

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: DPLB003AV

Level: (low/med) LOW Date Received: 00/00/00

% Moisture: not dec._____ Date Analyzed: 12/14/90

Column: (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	75-28-5	2-METHYLPROPANE	4.80	7	J
2.					
3.					
4.					
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SWBZ-1BMS

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water) WATER Lab Sample ID: 125323MS

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C125323MSV

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec._____ Date Analyzed: 12/14/90

Column: (pack/cap) PACK Dilution Factor: 1.0

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	1	BJ
67-64-1	Acetone	3	BJ
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene		
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene		
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene		
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene		
108-90-7	Chlorobenzene		
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SWBZ-1BMSD

Lab Name:AQUATEC, INC. Contract:89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water)WATER Lab Sample ID: 125323MD

Sample wt/vol: 5.0 (g/mL)ML Lab File ID: C125323MD2V

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec._____ Date Analyzed: 12/14/90

Column: (pack/cap) PACK Dilution Factor: 1.0

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	1	BJ
67-64-1	Acetone	5	BJ
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene		
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene		
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene		
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene		
108-90-7	Chlorobenzene		
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELD BLANK

Lab Name:AQUATEC, INC. Contract:89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water)WATER Lab Sample ID: 125244

Sample wt/vol: 1006 (g/mL)ML Lab File ID: B125244S

Level: (low/med) LOW Date Received: 12/06/90

% Moisture: not dec._____ dec._____ Date Extracted: 12/11/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 01/04/91

GPC Cleanup: (Y/N)N pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	bis(2-Chloroisopropyl)ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic acid	50	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELD BLANK

Lab Name:AQUATEC, INC. Contract:89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water)WATER Lab Sample ID: 125244

Sample wt/vol: 1006 (g/mL)ML Lab File ID: B125244S

Level: (low/med) LOW Date Received: 12/06/90

% Moisture: not dec._____ dec._____ Date Extracted: 12/11/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 01/04/91

GPC Cleanup: (Y/N)N pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

FIELD BLANK

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water) WATER Lab Sample ID: 125244

Sample wt/vol: 1006 (g/mL) ML Lab File ID: B125244S

Level: (low/med) LOW Date Received: 12/06/90

% Moisture: not dec._____ dec._____ Date Extracted: 12/11/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 01/04/91

GPC Cleanup: (Y/N) N pH:____ Dilution Factor: 1.0

Number TICs found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	123-42-2	2-PENTANONE, 4-HYDROXY-4-MET	9.45	18	JBA
2.					
3.					
4.					
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7.					
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GWBZ-1

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water) WATER Lab Sample ID: 125245

Sample wt/vol: 1010 (g/mL) ML Lab File ID: B125245S

Level: (low/med) LOW Date Received: 12/06/90

% Moisture: not dec._____ dec._____ Date Extracted: 12/11/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 01/04/91

GPC Cleanup: (Y/N) N pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	bis(2-Chloroisopropyl)ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic acid	50	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GWBZ-1

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water) WATER Lab Sample ID: 125245

Sample wt/vol: 1010 (g/mL) ML Lab File ID: B125245S

Level: (low/med) LOW Date Received: 12/06/90

% Moisture: not dec._____ dec._____ Date Extracted: 12/11/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 01/04/91

GPC Cleanup: (Y/N) N pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

GWBZ-1

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water) WATER Lab Sample ID: 125245

Sample wt/vol: 1010 (g/mL) ML Lab File ID: B125245S

Level: (low/med) LOW Date Received: 12/06/90

% Moisture: not dec._____ dec._____ Date Extracted: 12/11/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 01/04/91

GPC Cleanup: (Y/N) N pH:____ Dilution Factor: 1.0

Number TICs found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN C4-ALKYLPHENOL	22.07	17	J
2.					
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GWBZ-2

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water) WATER Lab Sample ID: 125246

Sample wt/vol: 1000 (g/mL) ML Lab File ID: B125246S

Level: (low/med) LOW Date Received: 12/06/90

% Moisture: not dec._____ dec._____ Date Extracted: 12/11/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 01/04/91

GPC Cleanup: (Y/N) N pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	bis(2-Chloroisopropyl)ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic acid	50	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GWBZ-2

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water) WATER Lab Sample ID: 125246

Sample wt/vol: 1000 (g/mL) ML Lab File ID: B125246S

Level: (low/med) LOW Date Received: 12/06/90

% Moisture: not dec._____ dec._____ Date Extracted: 12/11/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 01/04/91

GPC Cleanup: (Y/N) N pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

GWBZ-2

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water) WATER Lab Sample ID: 125246

Sample wt/vol: 1000 (g/mL) ML Lab File ID: B125246S

Level: (low/med) LOW Date Received: 12/06/90

% Moisture: not dec._____ dec._____ Date Extracted: 12/11/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 01/04/91

GPC Cleanup: (Y/N) N pH:____ Dilution Factor: 1.0

Number TICs found: 9

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN C3-ALKYLBENZENE	14.03	8	J
2.		UNKNOWN C3-ALKYLBENZENE	14.07	9	J
3.		UNKNOWN C3-ALKYLBENZENE	14.60	24	J
4.		UNKNOWN TRIMETHYLBENZENE	15.02	70	J
5.		UNKNOWN TRIMETHYLBENZENE	15.88	12	J
6.	496-11-7	1H-INDENE, 2,3-DIHYDRO-	16.28	16	J
7.		UNKNOWN	19.20	11	J
8.		UNKNOWN TOLYLSULFONIC ACID D	28.95	49	J
9.		UNKNOWN TOLYLSULFONIC ACID D	29.85	33	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GWBZ-3

Lab Name:AQUATEC, INC. Contract:89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water)WATER Lab Sample ID: 125248

Sample wt/vol: 1010 (g/mL)ML Lab File ID: B125248S

Level: (low/med) LOW Date Received: 12/06/90

% Moisture: not dec._____ dec._____ Date Extracted: 12/11/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 01/04/91

GPC Cleanup: (Y/N)N pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	bis(2-Chloroisopropyl)ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic acid	50	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GWBZ-3

Lab Name:AQUATEC, INC. Contract:89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water)WATER Lab Sample ID: 125248

Sample wt/vol: 1010 (g/mL)ML Lab File ID: B125248S

Level: (low/med) LOW Date Received: 12/06/90

% Moisture: not dec._____ dec._____ Date Extracted: 12/11/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 01/04/91

GPC Cleanup: (Y/N)N pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

GWBZ-3

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water) WATER Lab Sample ID: 125248

Sample wt/vol: 1010 (g/mL) ML Lab File ID: B125248S

Level: (low/med) LOW Date Received: 12/06/90

% Moisture: not dec._____ dec._____ Date Extracted: 12/11/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 01/04/91

GPC Cleanup: (Y/N) N pH:____ Dilution Factor: 1.0

Number TICs found: 2

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	123-42-2	2-PENTANONE, 4-HYDROXY-4-MET	9.47	9	JBA
2.		UNKNOWN C4-ALKYLPHENOL	22.08	19	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GWBZ-4

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water) WATER Lab Sample ID: 125249

Sample wt/vol: 1002 (g/mL) ML Lab File ID: B125249S

Level: (low/med) LOW Date Received: 12/06/90

% Moisture: not dec._____ dec._____ Date Extracted: 12/11/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 01/04/91

GPC Cleanup: (Y/N) N pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	bis(2-Chloroisopropyl)ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic acid	50	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GWBZ-4

Lab Name:AQUATEC, INC. Contract:89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water)WATER Lab Sample ID: 125249

Sample wt/vol: 1002 (g/mL)ML Lab File ID: B125249S

Level: (low/med) LOW Date Received: 12/06/90

% Moisture: not dec._____ dec._____ Date Extracted: 12/11/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 01/04/91

GPC Cleanup: (Y/N)N pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

GWBZ-4

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water) WATER Lab Sample ID: 125249

Sample wt/vol: 1002 (g/mL) ML Lab File ID: B125249S

Level: (low/med) LOW Date Received: 12/06/90

% Moisture: not dec._____ dec._____ Date Extracted: 12/11/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 01/04/91

GPC Cleanup: (Y/N) N pH:____ Dilution Factor: 1.0

Number TICs found: 5

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	19.20	16	J
2.		UNKNOWN C4-ALKYLPHENOL	22.12	76	J
3.		UNKNOWN TOLYLSULFONIC ACID D	28.93	16	J
4.		UNKNOWN TOLYLSULFONIC ACID D	29.85	10	J
5.	88-24-4	PHENOL, 2,2'-METHYLENEBIS[6	40.05	15	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GWBZ-5

Lab Name:AQUATEC, INC. Contract:89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water)WATER Lab Sample ID: 125322

Sample wt/vol: 1010 (g/mL)ML Lab File ID: B125322S

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec._____ dec._____ Date Extracted: 12/11/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 01/04/91

GPC Cleanup: (Y/N)N pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	bis(2-Chloroisopropyl)ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic acid	50	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GWBZ-5

Lab Name:AQUATEC, INC. Contract:89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water)WATER Lab Sample ID: 125322

Sample wt/vol: 1010 (g/mL)ML Lab File ID: B125322S

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec._____ dec._____ Date Extracted: 12/11/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 01/04/91

GPC Cleanup: (Y/N)N pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

GWBZ-5

Lab Name:AQUATEC, INC. Contract:89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water)WATER Lab Sample ID: 125322

Sample wt/vol: 1010 (g/mL)ML Lab File ID: B125322S

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec._____ dec._____ Date Extracted: 12/11/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 01/04/91

GPC Cleanup: (Y/N)N pH:____ Dilution Factor: 1.0

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SWBZ-1B

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water) WATER Lab Sample ID: 125323

Sample wt/vol: 1009 (g/mL) ML Lab File ID: B125323S

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec._____ dec._____ Date Extracted: 12/11/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 01/07/91

GPC Cleanup: (Y/N) N pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	bis(2-Chloroisopropyl)ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic acid	50	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SWBZ-1B

Lab Name:AQUATEC, INC. Contract:89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water)WATER Lab Sample ID: 125323

Sample wt/vol: 1009 (g/mL)ML Lab File ID: B125323S

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec._____ dec._____ Date Extracted: 12/11/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 01/07/91

GPC Cleanup: (Y/N)N pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SWBZ-1B

Lab Name:AQUATEC, INC. Contract:89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water)WATER Lab Sample ID: 125323

Sample wt/vol: 1009 (g/mL)ML Lab File ID: B125323S

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec._____ dec._____ Date Extracted: 12/11/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 01/07/91

GPC Cleanup: (Y/N)N pH:____ Dilution Factor: 1.0

Number TICs found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	123-42-2	2-PENTANONE, 4-HYDROXY-4-MET	9.37	12	JBA
2.					
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SWBZ-2B

Lab Name:AQUATEC, INC. Contract:89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water)WATER Lab Sample ID: 125324

Sample wt/vol: 1003 (g/mL)ML Lab File ID: B125324I6S

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec._____ dec._____ Date Extracted: 12/11/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 01/07/91

GPC Cleanup: (Y/N)N pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	bis(2-Chloroisopropyl)ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic acid	50	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SWBZ-2B

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water) WATER Lab Sample ID: 125324

Sample wt/vol: 1003 (g/mL) ML Lab File ID: B125324I6S

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec._____ dec._____ Date Extracted: 12/11/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 01/07/91

GPC Cleanup: (Y/N) N pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SWBZ-2B

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water) WATER Lab Sample ID: 125324

Sample wt/vol: 1003 (g/mL) ML Lab File ID: B125324I6S

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec._____ dec._____ Date Extracted: 12/11/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 01/07/91

GPC Cleanup: (Y/N) N pH:____ Dilution Factor: 1.0

Number TICs found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	123-42-2	2-PENTANONE, 4-HYDROXY-4-MET	9.35	12	JBA
2.					
3.					
4.					
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKW9

Lab Name:AQUATEC, INC. Contract:89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water)WATER Lab Sample ID: BB1211W9S

Sample wt/vol: 1000 (g/mL)ML Lab File ID: BB1211W9S

Level: (low/med) LOW Date Received: 00/00/00

% Moisture: not dec._____ dec._____ Date Extracted: 12/11/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 01/04/91

GPC Cleanup: (Y/N)N pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	bis(2-Chloroisopropyl)ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic acid	50	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKW9

Lab Name:AQUATEC, INC. Contract:89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water)WATER Lab Sample ID: BB1211W9S

Sample wt/vol: 1000 (g/mL)ML Lab File ID: BB1211W9S

Level: (low/med) LOW Date Received: 00/00/00

% Moisture: not dec._____ dec._____ Date Extracted: 12/11/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 01/04/91

GPC Cleanup: (Y/N)N pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLKW9

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water) WATER Lab Sample ID: BB1211W9S

Sample wt/vol: 1000 (g/mL) ML Lab File ID: BB1211W9S

Level: (low/med) LOW Date Received: 00/00/00

% Moisture: not dec._____ dec._____ Date Extracted: 12/11/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 01/04/91

GPC Cleanup: (Y/N) N pH:____ Dilution Factor: 1.0

Number TICs found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	123-42-2	2-PENTANONE, 4-HYDROXY-4-MET	9.43	24	JA
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
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21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SWBZ-1BMS

Lab Name:AQUATEC, INC. Contract:89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water)WATER Lab Sample ID: 125323MS

Sample wt/vol: 1003 (g/mL)ML Lab File ID: B125323MSS

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec._____ dec._____ Date Extracted: 12/11/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 01/07/91

GPC Cleanup: (Y/N)N pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	bis(2-Chloroisopropyl)ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic acid	50	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SWBZ-1BMS

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water) WATER Lab Sample ID: 125323MS

Sample wt/vol: 1003 (g/mL) ML Lab File ID: B125323MSS

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec._____ dec._____ Date Extracted: 12/11/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 01/07/91

GPC Cleanup: (Y/N) N pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene		
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol		
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene		
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol		
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene		
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SWBZ-1BMSD

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water) WATER Lab Sample ID: 125323MD

Sample wt/vol: 1008 (g/mL) ML Lab File ID: B125323MDS

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec._____ dec._____ Date Extracted: 12/11/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 01/07/91

GPC Cleanup: (Y/N) N pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	bis(2-Chloroisopropyl)ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic acid	50	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SWBZ-1BMSD

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water) WATER Lab Sample ID: 125323MD

Sample wt/vol: 1008 (g/mL) ML Lab File ID: B125323MDS

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec._____ dec._____ Date Extracted: 12/11/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 01/07/91

GPC Cleanup: (Y/N) N pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene		
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol		
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene		
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol		
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene		
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELD BLANK

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water) WATER Lab Sample ID: 125244

Sample wt/vol: 993 (g/mL) ML Lab File ID: _____

Level: (low/med) LOW Date Received: 12/06/90

% Moisture: not dec._____ dec._____ Date Extracted: 12/07/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 12/21/90

GPC Cleanup: (Y/N) N pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GWBZ-1

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water) WATER Lab Sample ID: 125245

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

Level: (low/med) LOW Date Received: 12/06/90

% Moisture: not dec._____ dec._____ Date Extracted: 12/07/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 12/21/90

GPC Cleanup: (Y/N) N pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GWBZ-2

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water) WATER Lab Sample ID: 125246

Sample wt/vol: 997 (g/mL) ML Lab File ID: _____

Level: (low/med) LOW Date Received: 12/06/90

% Moisture: not dec._____ dec._____ Date Extracted: 12/07/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 12/21/90

GPC Cleanup: (Y/N) N pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GWBZ-3

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water) WATER Lab Sample ID: 125248

Sample wt/vol: 998 (g/mL) ML Lab File ID: _____

Level: (low/med) LOW Date Received: 12/06/90

% Moisture: not dec._____ dec._____ Date Extracted: 12/07/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 01/02/91

GPC Cleanup: (Y/N) N pH:____ Dilution Factor: 5.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.19	Y
319-85-7	beta-BHC	0.11	Y
319-86-8	delta-BHC	0.25	U
58-89-9	gamma-BHC (Lindane)	0.25	U
76-44-8	Heptachlor	0.25	U
309-00-2	Aldrin	0.25	U
1024-57-3	Heptachlor epoxide	0.25	U
959-98-8	Endosulfan I	0.25	U
60-57-1	Dieldrin	0.50	U
72-55-9	4,4'-DDE	0.50	U
72-20-8	Endrin	0.50	U
33213-65-9	Endosulfan II	0.50	U
72-54-8	4,4'-DDD	0.50	U
1031-07-8	Endosulfan sulfate	0.50	U
50-29-3	4,4'-DDT	0.50	U
72-43-5	Methoxychlor	2.5	U
53494-70-5	Endrin ketone	0.50	U
5103-71-9	alpha-Chlordane	2.5	U
5103-74-2	gamma-Chlordane	2.5	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	2.5	U
11104-28-2	Aroclor-1221	2.5	U
11141-16-5	Aroclor-1232	2.5	U
53469-21-9	Aroclor-1242	2.5	U
12672-29-6	Aroclor-1248	2.5	U
11097-69-1	Aroclor-1254	5.0	U
11096-82-5	Aroclor-1260	5.0	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GWBZ-4

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water) WATER Lab Sample ID: 125249

Sample wt/vol: 995 (g/mL) ML Lab File ID: _____

Level: (low/med) LOW Date Received: 12/06/90

% Moisture: not dec._____ dec._____ Date Extracted: 12/07/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 12/21/90

GPC Cleanup: (Y/N) N pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GWBZ-5

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water) WATER Lab Sample ID: 125322

Sample wt/vol: 996 (g/mL) ML Lab File ID: _____

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec._____ dec._____ Date Extracted: 12/12/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 12/21/90

GPC Cleanup: (Y/N) N pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SWBZ-1B

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water) WATER Lab Sample ID: 125323

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec._____ dec._____ Date Extracted: 12/12/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 12/21/90

GPC Cleanup: (Y/N) N pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SWBZ-2B

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water) WATER Lab Sample ID: 125324

Sample wt/vol: 995 (g/mL) ML Lab File ID: _____

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec._____ dec._____ Date Extracted: 12/12/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 12/21/90

GPC Cleanup: (Y/N) N pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLKE3

Lab Name:AQUATEC, INC. Contract:89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water)WATER Lab Sample ID: PBLKE3

Sample wt/vol: 1000 (g/mL)ML Lab File ID: _____

Level: (low/med) LOW Date Received: _____

% Moisture: not dec._____ dec._____ Date Extracted: 12/07/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 12/20/90

GPC Cleanup: (Y/N)N pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLKE9

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water) WATER Lab Sample ID: PBLKE9

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

Level: (low/med) LOW Date Received: _____

% Moisture: not dec._____ dec._____ Date Extracted: 12/12/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 12/20/90

GPC Cleanup: (Y/N) N pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SWBZ-1BMS

Lab Name:AQUATEC, INC. Contract:89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water)WATER Lab Sample ID: 125323MS

Sample wt/vol: 995 (g/mL)ML Lab File ID: _____

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec._____ dec._____ Date Extracted: 12/12/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 12/21/90

GPC Cleanup: (Y/N)N pH:____ Dilution Factor: 5.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/L	Q
319-84-6	alpha-BHC	0.25	U
319-85-7	beta-BHC	0.25	U
319-86-8	delta-BHC	0.25	U
58-89-9	gamma-BHC (Lindane)		
76-44-8	Heptachlor		
309-00-2	Aldrin		
1024-57-3	Heptachlor epoxide	0.25	U
959-98-8	Endosulfan I	0.25	U
60-57-1	Dieldrin		
72-55-9	4,4'-DDE	0.50	U
72-20-8	Endrin		
33213-65-9	Endosulfan II	0.50	U
72-54-8	4,4'-DDD	0.50	U
1031-07-8	Endosulfan sulfate	0.50	U
50-29-3	4,4'-DDT		
72-43-5	Methoxychlor	2.5	U
53494-70-5	Endrin ketone	0.50	U
5103-71-9	alpha-Chlordane	2.5	U
5103-74-2	gamma-Chlordane	2.5	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	2.5	U
11104-28-2	Aroclor-1221	2.5	U
11141-16-5	Aroclor-1232	2.5	U
53469-21-9	Aroclor-1242	2.5	U
12672-29-6	Aroclor-1248	2.5	U
11097-69-1	Aroclor-1254	5.0	U
11096-82-5	Aroclor-1260	5.0	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SWBZ-1BMSD

Lab Name:AQUATEC, INC. Contract:89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix: (soil/water)WATER Lab Sample ID: 125323MD

Sample wt/vol: 998 (g/mL)ML Lab File ID: _____

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec._____ dec._____ Date Extracted: 12/12/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 12/21/90

GPC Cleanup: (Y/N)N pH:____ Dilution Factor: 5.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/L	Q
319-84-6	alpha-BHC	0.25	U
319-85-7	beta-BHC	0.25	U
319-86-8	delta-BHC	0.25	U
58-89-9	gamma-BHC (Lindane)		
76-44-8	Heptachlor		
309-00-2	Aldrin		
1024-57-3	Heptachlor epoxide	0.25	U
959-98-8	Endosulfan I	0.25	U
60-57-1	Dieldrin		
72-55-9	4,4'-DDE	0.50	U
72-20-8	Endrin		
33213-65-9	Endosulfan II	0.50	U
72-54-8	4,4'-DDD	0.50	U
1031-07-8	Endosulfan sulfate	0.50	U
50-29-3	4,4'-DDT		
72-43-5	Methoxychlor	2.5	U
53494-70-5	Endrin ketone	0.50	U
5103-71-9	alpha-Chlordane	2.5	U
5103-74-2	gamma-Chlordane	2.5	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	2.5	U
11104-28-2	Aroclor-1221	2.5	U
11141-16-5	Aroclor-1232	2.5	U
53469-21-9	Aroclor-1242	2.5	U
12672-29-6	Aroclor-1248	2.5	U
11097-69-1	Aroclor-1254	5.0	U
11096-82-5	Aroclor-1260	5.0	U

QC SUMMARY

aquatec

ENVIRONMENTAL SERVICES

75 Green Mountain Drive, So. Burlington, VT 05403
TEL. 802/658-1074

125323

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.
SWB2-1B

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 125244

Matrix (soil/water): WATER Level (low/med): _____

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum	75-125	2768.0150		1035.6430		1993.4	86.9		P
Antimony	75-125	466.6200		60.0000	U	498.4	93.6		P
Arsenic	75-125	43.6821		10.0000	U	39.9	109.5		F
Barium	75-125	1910.1610		200.0000	U	1993.4	95.8		P
Beryllium	75-125	43.7760		5.0000	U	49.8	87.9		P
Cadmium	75-125	45.0250		5.0000	U	49.8	90.4		P
Calcium									NR
Chromium	75-125	185.6370		10.0000	U	199.3	93.1		P
Cobalt	75-125	463.3010		50.0000	U	498.4	93.0		P
Copper	75-125	234.2920		25.0000	U	249.2	94.0		P
Iron	75-125	1958.5370		1153.0980		996.7	80.8		P
Lead	75-125	24.2944		2.3574	B	19.9	110.2		F
Magnesium									NR
Manganese	75-125	499.5610		28.3260		498.4	94.4		P
Mercury	75-125	1.1420		0.2000	U	1.0	114.2		CV
Nickel	75-125	452.6660		40.0000	U	498.4	90.8		P
Potassium									NR
Selenium	75-125	8.6068		5.0000	U	10.0	86.1		F
Silver	75-125	36.3270		10.0000	U	49.8	72.9	N	P
Sodium									NR
Thallium	75-125	50.8128		10.0000	U	49.9	101.8		F
Vanadium	75-125	490.1770		50.0000	U	498.4	98.4		P
Zinc	75-125	525.6550		26.6730		498.4	100.1		P
Cyanide	75-125	100.8900		10.0000	U	100.0	100.9		C

Comments:

125323

6
DUPLICATES

EPA SAMPLE NO.

SWB2-1B

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 125244

Matrix (soil/water): WATER Level (low/med): _____

% Solids for Sample: 0.0 % Solids for Duplicate: 0.0

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		1035.6430		1034.1270		0.1		P
Antimony	±60.0	60.0000	U	60.0000	U			P
Arsenic	±10.0	10.0000	U	10.0000	U			F
Barium	±200.0	200.0000	U	200.0000	U			P
Beryllium	±5.0	5.0000	U	5.0000	U			P
Cadmium	±5.0	5.0000	U	5.0000	U			P
Calcium		42604.1020		44184.5700		3.6		P
Chromium	±10.0	10.0000	U	10.0000	U			P
Cobalt	±50.0	50.0000	U	50.0000	U			P
Copper	±25.0	25.0000	U	25.0000	U			P
Iron		1153.0980		1106.3490		4.1		P
Lead	±5.0	2.3574	B	2.5211	B	6.7		P
Magnesium	±5000.0	10020.1540		10065.7730		0.5		P
Manganese	±15.0	28.3260		27.9960		1.2		P
Mercury	±0.2	0.2000	U	0.4355		200.0	X	CV
Nickel	±40.0	40.0000	U	40.0000	U			P
Potassium	±5000.0	5000.0000	U	5000.0000	U			P
Selenium	±5.0	5.0000	U	5.0000	U			P
Silver	±10.0	10.0000	U	10.0000	U			P
Sodium	±5000.0	18173.9960		18192.2110		0.1		P
Thallium	±10.0	10.0000	U	10.0000	U			P
Vanadium	±50.0	50.0000	U	50.0000	U			P
Zinc	±20.0	26.6730		20.0000	U	200.0	X	P
Cyanide	±10.0	10.0000	U	10.0000	U			C

2A
WATER VOLATILE SURROGATE RECOVERY

Lab Name:AQUATEC, INC. Contract:89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

	EPA SAMPLE NO.	S1 (TOL)	#	S2 (BFB)	#	S3 (DCE)	#	OTHER	TOT OUT
01	VBLKJ6	103		104		100			0
02	GWBZ-4	103		106		104			0
03	TRIP BLANK	107		110		106			0
04	SWBZ-1B	104		106		106			0
05	SWBZ-1BMS	93		92		98			0
06	SWBZ-1BMSD	104		106		110			0
07	VBLKH9	94		100		93			0
08	FIELD BLANK	89		94		89			0
09	GWBZ-1	87	*	95		87			1
10	GWBZ-2	87	*	98		88			1
11	GWBZ-3	93		104		91			0
12	VBLKJ9	101		105		104			0
13	GWBZ-5	96		102		97			0
14	SWBZ-2B	96		101		100			0
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	QC LIMITS
S1 (TOL) = Toluene-d8	(88-110)
S2 (BFB) = Bromofluorobenzene	(86-115)
S3 (DCE) = 1,2-Dichloroethane-d4	(76-114)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:AQUATEC, INC. Contract:89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix Spike - EPA Sample No.: SWBZ-1B

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	50	0	61	122	61-145
Trichloroethene	50	0	58	115	71-120
Benzene	50	0	56	112	76-127
Toluene	50	0	52	105	76-125
Chlorobenzene	50	0	53	106	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50	62	124	2	14	61-145
Trichloroethene	50	59	117	2	14	71-120
Benzene	50	58	115	2	11	76-127
Toluene	50	55	109	4	13	76-125
Chlorobenzene	50	55	110	4	13	75-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS: _____

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4A

VOLATILE METHOD BLANK SUMMARY

Lab Name:AQUATEC, INC. Contract:89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Lab File ID: CNOB002CV Lab Sample ID: CNOB002CV

Date Analyzed: 12/13/90 Time Analyzed: 2004

Matrix: (soil/water) WATER Level:(low/med) LOW

Instrument ID: OWAC

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	GWBZ-4	125249	C125249V	2056
02	TRIP BLANK	125321	C125321V	0030
03	SWBZ-1B	125323	C125323V	0130
04	SWBZ-1BMS	125323MS	C125323MSV	0225
05	SWBZ-1BMSD	125323MD	C125323MD2V	0415
06				
07				
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COMMENTS: _____

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Lab File ID: DPHB002LV Lab Sample ID: DPHB002LV

Date Analyzed: 12/13/90 Time Analyzed: 0352

Matrix: (soil/water) WATER Level: (low/med) LOW

Instrument ID: OWAD

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	FIELD BLANK	125244	D125244V	0955
02	GWBZ-1	125245	D125245V	1048
03	GWBZ-2	125246	D125246V	1139
04	GWBZ-3	125248	D125247V	1232
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COMMENTS: _____

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Lab File ID: DPLB003AV Lab Sample ID: DPLB003AV

Date Analyzed: 12/14/90 Time Analyzed: 0255

Matrix: (soil/water) WATER Level: (low/med) LOW

Instrument ID: OWAD

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	GWBZ-5	125322	D125322V	0830
02	SWBZ-2B	125324	D125324V	0925
03				
04				
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COMMENTS: _____

FORM IV VOA 1/87 Rev.

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2C
WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name:AQUATEC, INC. Contract:89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

	EPA SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	OTHER	TOT OUT
01	SBLKW9	65 _	72 _	104 _	38 _	59 _	78 _		0
02	FIELD BLANK	71 _	82 _	92 _	36 _	58 _	98 _		0
03	GWBZ-1	69 _	75 _	98 _	35 _	51 _	106 _		0
04	GWBZ-2	68 _	75 _	96 _	37 _	54 _	108 _		0
05	GWBZ-3	68 _	76 _	94 _	35 _	54 _	112 _		0
06	GWBZ-4	78 _	83 _	97 _	39 _	56 _	113 _		0
07	GWBZ-5	74 _	76 _	89 _	24 _	33 _	72 _		0
08	SWBZ-1B	73 _	88 _	89 _	39 _	60 _	94 _		0
09	SWBZ-1BMS	79 _	87 _	92 _	38 _	55 _	98 _		0
10	SWBZ-1BMSD	86 _	95 _	88 _	39 _	60 _	111 _		0
11	SWBZ-2B	67 _	80 _	70 _	36 _	56 _	91 _		0
12									
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	QC LIMITS
S1 (NBZ) = Nitrobenzene-d5	(35-114)
S2 (FBP) = 2-Fluorobiphenyl	(43-116)
S3 (TPH) = Terphenyl-d14	(33-141)
S4 (PHL) = Phenol-d6	(10-94)
S5 (2FP) = 2-Fluorophenol	(21-100)
S6 (TBP) = 2,4,6-Tribromophenol	(10-123)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

000683

FORM II SV-1

1/87 Rev.

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3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:AQUATEC, INC. Contract:89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix Spike - EPA Sample No.: SWBZ-1B

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
Phenol	199	0	68	34	12- 89
2-Chlorophenol	199	0	157	79	27-123
1,4-Dichlorobenzene	100	0	74	74	36- 97
N-Nitroso-di-n-prop.(1)	100	0	65	65	41-116
1,2,4-Trichlorobenzene	100	0	75	75	39- 98
4-Chloro-3-methylphenol	199	0	139	70	23- 97
Acenaphthene	100	0	96	97	46-118
4-Nitrophenol	199	0	58	29	10- 80
2,4-Dinitrotoluene	100	0	65	65	24- 96
Pentachlorophenol	199	0	176	88	9-103
Pyrene	100	0	86	86	26-127

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	198	72	36	5	42	12- 89
2-Chlorophenol	198	175	88	11	40	27-123
1,4-Dichlorobenzene	99	83	84	13	28	36- 97
N-Nitroso-di-n-prop.(1)	99	71	71	9	38	41-116
1,2,4-Trichlorobenzene	99	82	82	9	28	39- 98
4-Chloro-3-methylphenol	198	148	75	7	42	23- 97
Acenaphthene	99	101	102	5	31	46-118
4-Nitrophenol	198	55	28	4	50	10- 80
2,4-Dinitrotoluene	99	68	69	6	38	24- 96
Pentachlorophenol	198	220	111 *	23	50	9-103
Pyrene	99	82	83	4	31	26-127

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 11 outside limits
Spike Recovery: 1 out of 22 outside limits

COMMENTS: _____

2E
WATER PESTICIDE SURROGATE RECOVERY

Lab Name:AQUATEC, INC. Contract:89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

	EPA SAMPLE NO.	S1 (DBC) #	OTHER
01	PBLKE9	88	
02	PBLKE3	88	
03	GWBZ-5	74	
04	SWBZ-2B	80	
05	SWBZ-1B	91	
06	SWBZ-1BMS	95	
07	SWBZ-1BMSD	99	
08	FIELD BLANK	93	
09	GWBZ-1	73	
10	GWBZ-2	63	
11	GWBZ-3	93	
12	GWBZ-4	72	
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ADVISORY QC LIMITS (24-154)

S1 (DBC) = Dibutylchlorendate

Column used to flag recovery values

* Values outside of QC limits

D Surrogates diluted out

FORM II PEST-1

3E

WATER PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:AQUATEC, INC. Contract:89133

Lab Code: AQUAI Case No.: 24232 SAS No.: _____ SDG No.: 12524

Matrix Spike - EPA Sample No.: SWBZ-1B

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
gamma-BHC (Lindane)	0.20	0.00	0.19	95	56-123
Heptachlor	0.20	0.00	0.19	95	40-131
Aldrin	0.20	0.00	0.19	95	40-120
Dieldrin	0.50	0.00	0.52	104	52-126
Endrin	0.50	0.00	0.55	110	56-121
4,4'-DDT	0.50	0.00	0.45	90	38-127

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
gamma-BHC (Lindane)	0.20	0.18	90	5	15	56-123
Heptachlor	0.20	0.19	95	0	20	40-131
Aldrin	0.20	0.23	115	19	22	40-120
Dieldrin	0.50	0.50	100	4	18	52-126
Endrin	0.50	0.54	108	2	21	56-121
4,4'-DDT	0.50	0.45	90	0	27	38-127

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 6 outside limits
Spike Recovery: 0 out of 12 outside limits

COMMENTS: _____

LMS ENGINEERS

ANALYTICAL RESULTS

aquatec

ENVIRONMENTAL SERVICES

75 Green Mountain Drive, So. Burlington, VT 05403
TEL. 802/658-1074

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NARRATIVE

aquatec
ENVIRONMENTAL SERVICES
75 Green Mountain Drive, So. Burlington, VT 05403
TEL. 802/658-1074

aquatec INC. ENVIRONMENTAL SERVICES

75 GREEN MOUNTAIN DRIVE, SOUTH BURLINGTON, VERMONT 05403, TELEPHONE (802) 658-1074

January 23, 1991

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JAN 24 1989 91
LMS ENGINEERS

William Ahlert, Ph.D.
Lawler, Matusky & Skelly Engineers
One Blue Hill Plaza
P.O. Box 1509
Pearl River, NY 10965

Re: Aquatec Project No. 89133
Analytical Services Subcontract to LMS/NYSDEC
Contract No. D001918, Amendment 3
Case No. 24147; SDG No. 124981
ETR No's. 24147, 24151, 24182 and 24257

Dear Dr. Ahlert:

Enclosed are the results of analyses performed on Brzezinski site soil/sediment samples received from LMS.

The samples were received intact on November 29, November 30, December 1, and December 7, 1990. The breakage of one 500 ml amber glass bottle of sample SDBZ-1B at Aquatec on December 7, 1990 did not preclude the laboratory from performing all of the required testing.

Laboratory numbers were assigned to the samples and were designated as follows:

Aquatec ETR No.	LMS Sample I.D.	Aquatec Lab No.	Sample Matrix
24147	BZMW-5	124981	soil/sediment
	BZMW-5	124982	EPTOX extract
	BZMW-4	124983	soil/sediment
	BZMW-4	124984	EPTOX extract
24151	BZTB-1	124989	soil/sediment
	BZTB-1	124990	EPTOX extract
	BZTB-2	124991	soil/sediment
	BZTB-2	124992	EPTOX extract
	BZTB-3	124993	soil/sediment
	BZTB-3	124994	EPTOX extract
24182	BZTB-4	125053	soil/sediment
	BZTB-4	125054	EPTOX extract
24257	SDBZ-1B	125328	soil/sediment
	SDBZ-2B	125329	soil/sediment
	SSBZ-10	125330	soil/sediment

Additional quantities of sample SSBZ-10 were submitted to the laboratory to provide for quality control (QC) analyses. Subsamples of SSBZ-10 used for QC analyses were independently logged into the laboratory for the purpose of internal sample tracking. These QC samples were assigned the laboratory numbers 125330MS (matrix spike), 125330MD (matrix spike duplicate), and 125330DP (duplicate).

Additional qualifiers have been used in reporting the pesticide/PCB results. They are listed and defined as follows:

Y - The reported pesticide/PCB result is below the adjusted contract reporting limit.

X - The reported result was derived from instrument response outside the calibration range.

All of the samples required sulfur clean-up in preparation for pesticide/PCB analysis. The associated method blanks were taken through the clean-up procedure as well.

A twenty fold dilution was required in the pesticide/PCB analysis of sample 124989. A two fold dilution analysis was also performed. The results of both analyses are included in this submittal as requested. The twenty fold dilution analysis is identified with a "DL" suffix affixed to the sample number.

Several samples exhibited PCB's in sufficient concentration so as to interfere with the customary second column confirmation analysis specified in the method. As such, a third column confirmation analysis was performed by the laboratory to obtain more positive identification of potentially masked analytes. A third column confirmation run was performed using an RTX-1701 column in the pesticide/PCB analysis of sample 124981 (BZMW-5). The third column analysis was necessary to confirm the presence of beta-BHC due to PCB interferences observed on the RTX-5 column. A third column confirmation determination for alpha-BHC was also required for samples 124989, 124989DL, 124993, and 125053.

The results of pesticide/PCB analyses on samples 124983, 124989, 124993, and 125053 indicated that PCB's were present in high enough concentration to warrant GC/MS confirmation. The matter was communicated to you on January 10, 1991 when it was decided that the PCB's and alpha-BHC (in sample 124989) in these samples required confirmation if possible. Subsequent GC/MS analysis confirmed the presence of PCB's in all four samples as well as alpha-BHC in sample 124989. The GC/MS confirmation results can be found in the Pesticide Supportive Documentation section of this submittal.

The matrix spike recoveries for antimony, arsenic, barium, cadmium, lead, nickel, selenium, silver, and thallium were out of the specified tolerances in the matrix spike analysis of sample

125330MS. Additionally, the result for barium did not correspond well in the replicate analysis of sample 125330. The analytical results have been qualified accordingly.

Please note the addition of page 000002A as part of this case submittal.

Sincerely,

Joseph K. Comeau, Ph.D.
Vice President
Chemistry Division

JKC/amp

Enclosure

89133B23JAN91

ANALYTICAL RESULTS

aquatec

ENVIRONMENTAL SERVICES

75 Green Mountain Drive, So. Burlington, VT 05403
TEL. 802/658-1074

F-1/2

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 124981

SOW No.: _____

EPA Sample No.	Lab Sample ID.
BZMW-5	124981
BZMW-4	124983
BZTB-1	124989
BZTB-2	124991
BZTB-3	124993
BZTB-4	125053
SDBZ-1B	125328
SDBZ-2B	125329
SSBZ-10	125330
SSBZ-10D	125330DP
SSBZ-10S	125330MS

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JAN 24 1989
LMS ENGINEERS

Were ICP interelement corrections applied? Yes/No No

Were ICP background corrections applied? Yes/No Yes
If yes-were raw data generated before application of background corrections? Yes/No No

Comments:

Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Lab Manager: Joseph Comer

Date: 1/23/91

QUALIFIERS FOR METALS ANALYSIS

E - The reported value is estimated because of the presence of interference.

M - Duplicate injection precision not met.

N - Matrix spiked sample recovery not within control limits.

S - The reported value was determined by the Method of Standard Additions.

+ - Correlation coefficient for the MSA is less than 0.995.

W - Post digestion spike for Furnace AA analysis is out of control limits (85-115%), while sample absorbance is less than 50% of spike absorbance.

* - Duplicate analysis not within control limits.

Concentration Qualifiers

B - Entered if the reported value is less than the Contract Required Detection Limit (CRDL) but greater than the Instrument Detection Limit (IDL).

U - Entered if the analyte was analyzed for but not detected, less than CRDL.

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BZMW-5

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 124981

Matrix (soil/water): SOIL Lab Sample ID: 124981

Level (low/med): _____ Date Received: 11/29/90

% Solids: 76.8

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

CAS No.	Analyte	Concentration	C	M	Q
7429-90-5	Aluminum	12400			P
7440-36-0	Antimony	7.9	U	N	P
7440-38-2	Arsenic	33.4		+N	F
7440-39-3	Barium	307		N*	P
7440-41-7	Beryllium	0.66	U		P
7440-43-9	Cadmium	2.5		N	P
7440-70-2	Calcium	44800			P
7440-47-3	Chromium	54.1			P
7440-48-4	Cobalt	9.0			P
7440-50-8	Copper	76.9			P
7439-89-6	Iron	27700			P
7439-92-1	Lead	135		EN	P
7439-95-4	Magnesium	6420			P
7439-96-5	Manganese	410			P
7439-97-6	Mercury	1.6			CV
7440-02-0	Nickel	44.9		N	P
7440-09-7	Potassium	1830			P
7782-49-2	Selenium	7.4	U	WN	F
7440-22-4	Silver	9.2		N	P
7440-23-5	Sodium	658	U		P
7440-28-0	Thallium	7.4	U	N	F
7440-62-2	Vanadium	39.9			P
7440-66-6	Zinc	252		E	P
	Cyanide	3.1			C

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

_____

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1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BZMW-4

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 124981

Matrix (soil/water): SOIL Lab Sample ID: 124983

Level (low/med): _____ Date Received: 11/29/90

% Solids: 73.6

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

CAS No.	Analyte	Concentration	C	M	Q
7429-90-5	Aluminum	6500			P
7440-36-0	Antimony	12.7	U	N	P
7440-38-2	Arsenic	6.6		SN	F
7440-39-3	Barium	42.5	U	N*	P
7440-41-7	Beryllium	1.1	U		P
7440-43-9	Cadmium	1.1	U	N	P
7440-70-2	Calcium	27900			P
7440-47-3	Chromium	54.9			P
7440-48-4	Cobalt	10.6	U		P
7440-50-8	Copper	18.2			P
7439-89-6	Iron	12500			P
7439-92-1	Lead	41.9		S	F
7439-95-4	Magnesium	9540			P
7439-96-5	Manganese	228			P
7439-97-6	Mercury	0.09			CV
7440-02-0	Nickel	99.3		N	P
7440-09-7	Potassium	1060	U		P
7782-49-2	Selenium	8.9	U	WN	F
7440-22-4	Silver	2.1	U	N	P
7440-23-5	Sodium	1060	U		P
7440-28-0	Thallium	1.8	U	N	F
7440-62-2	Vanadium	11.0			P
7440-66-6	Zinc	98.5		E	P
	Cyanide	0.72	U		C

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

BZTB-1

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 124981

Matrix (soil/water): SOIL Lab Sample ID: 124989

Level (low/med): _____ Date Received: 11/30/90

% Solids: 76.1

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

CAS No.	Analyte	Concentration	C	M	Q
7429-90-5	Aluminum	7420			P
7440-36-0	Antimony	15.3	U	N	P
7440-38-2	Arsenic	10.3		+N	F
7440-39-3	Barium	198		N*	P
7440-41-7	Beryllium	1.3	U		P
7440-43-9	Cadmium	7.0		N	P
7440-70-2	Calcium	29300			P
7440-47-3	Chromium	34.1			P
7440-48-4	Cobalt	12.8	U		P
7440-50-8	Copper	83.7			P
7439-89-6	Iron	76400			P
7439-92-1	Lead	80.4		S	F
7439-95-4	Magnesium	5420			P
7439-96-5	Manganese	485			P
7439-97-6	Mercury	0.56			CV
7440-02-0	Nickel	48.1		N	P
7440-09-7	Potassium	1280	U		P
7782-49-2	Selenium	8.4	U	EMN	F
7440-22-4	Silver	2.6	U	N	P
7440-23-5	Sodium	2400			P
7440-28-0	Thallium	1.7	U	N	F
7440-62-2	Vanadium	15.1			P
7440-66-6	Zinc	542		E	P
	Cyanide	0.75	U		C

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: BZTB-2

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 124981

Matrix (soil/water): SOIL Lab Sample ID: 124991

Level (low/med): _____ Date Received: 11/30/90

% Solids: 81.5

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

CAS No.	Analyte	Concentration	C	M	Q
7429-90-5	Aluminum	7730			P
7440-36-0	Antimony	11.9	U	N	P
7440-38-2	Arsenic	12.6		+N	F
7440-39-3	Barium	117		N*	P
7440-41-7	Beryllium	0.99	U		P
7440-43-9	Cadmium	3.0		N	P
7440-70-2	Calcium	19200			P
7440-47-3	Chromium	93.3			P
7440-48-4	Cobalt	9.9	U		P
7440-50-8	Copper	49.2			P
7439-89-6	Iron	39900			P
7439-92-1	Lead	137		EN	P
7439-95-4	Magnesium	6120			P
7439-96-5	Manganese	483			P
7439-97-6	Mercury	0.31			CV
7440-02-0	Nickel	38.2		N	P
7440-09-7	Potassium	990	U		P
7782-49-2	Selenium	8.8	U	N	F
7440-22-4	Silver	2.0	U	N	P
7440-23-5	Sodium	990	U		P
7440-28-0	Thallium	1.8	U	N	F
7440-62-2	Vanadium	33.8			P
7440-66-6	Zinc	280		E	P
	Cyanide	0.72	U		C

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: BZTB-3

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 124981

Matrix (soil/water): SOIL Lab Sample ID: 124993

Level (low/med): _____ Date Received: 11/30/90

% Solids: 85.4

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

CAS No.	Analyte	Concentration	C	M	Q
7429-90-5	Aluminum	5700			P
7440-36-0	Antimony	12.7	U	N	P
7440-38-2	Arsenic	10.2		+N	F
7440-39-3	Barium	130		N*	P
7440-41-7	Beryllium	1.1	U		P
7440-43-9	Cadmium	1.6		N	P
7440-70-2	Calcium	12500			P
7440-47-3	Chromium	262			P
7440-48-4	Cobalt	10.5	B		P
7440-50-8	Copper	67.6			P
7439-89-6	Iron	22700			P
7439-92-1	Lead	49.7		S	F
7439-95-4	Magnesium	1610			P
7439-96-5	Manganese	225			P
7439-97-6	Mercury	0.42			CV
7440-02-0	Nickel	517		N	P
7440-09-7	Potassium	1050	U		P
7782-49-2	Selenium	6.7	U	WMN	F
7440-22-4	Silver	2.1	U	N	P
7440-23-5	Sodium	1050	U		P
7440-28-0	Thallium	1.3	U	WN	F
7440-62-2	Vanadium	29.1			P
7440-66-6	Zinc	554		E	P
	Cyanide	0.67	U		C

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: BZTB-4

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 124981

Matrix (soil/water): SOIL Lab Sample ID: 125053

Level (low/med): _____ Date Received: 12/01/90

% Solids: 79.2

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

CAS No.	Analyte	Concentration	C	M	Q
7429-90-5	Aluminum	4250			P
7440-36-0	Antimony	11.7	U	N	P
7440-38-2	Arsenic	9.2		+N	F
7440-39-3	Barium	38.9	U	N*	P
7440-41-7	Beryllium	0.97	U		P
7440-43-9	Cadmium	0.97	U	N	P
7440-70-2	Calcium	21400			P
7440-47-3	Chromium	16.0			P
7440-48-4	Cobalt	9.7	U		P
7440-50-8	Copper	13.9			P
7439-89-6	Iron	12900			P
7439-92-1	Lead	14.3		S	F
7439-95-4	Magnesium	6980			P
7439-96-5	Manganese	240			P
7439-97-6	Mercury	0.13			CV
7440-02-0	Nickel	20.6		N	P
7440-09-7	Potassium	971	U		P
7782-49-2	Selenium	12.6	U	N	F
7440-22-4	Silver	1.9	U	N	P
7440-23-5	Sodium	971	U		P
7440-28-0	Thallium	2.5	U	N	F
7440-62-2	Vanadium	10.1			P
7440-66-6	Zinc	161		E	P
	Cyanide	0.70	U		C

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: SDBZ-1B

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 124981

Matrix (soil/water): SOIL Lab Sample ID: 125328

Level (low/med): _____ Date Received: 12/07/90

% Solids: 84.0

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

CAS No.	Analyte	Concentration	C	M	Q
7429-90-5	Aluminum	1290			P
7440-36-0	Antimony	12.0	U	N	P
7440-38-2	Arsenic	1.3		SN	F
7440-39-3	Barium	40.0	U	N*	P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	1.0	U	N	P
7440-70-2	Calcium	24300			P
7440-47-3	Chromium	5.0			P
7440-48-4	Cobalt	10.0	U		P
7440-50-8	Copper	6.8			P
7439-89-6	Iron	4940			P
7439-92-1	Lead	20.8		S	F
7439-95-4	Magnesium	5670			P
7439-96-5	Manganese	120			P
7439-97-6	Mercury	0.07			CV
7440-02-0	Nickel	9.7		N	P
7440-09-7	Potassium	213			P
7782-49-2	Selenium	0.86	U	WN	F
7440-22-4	Silver	2.0	U	N	P
7440-23-5	Sodium	999	U		P
7440-28-0	Thallium	1.7	U	WN	F
7440-62-2	Vanadium	10.0	U		P
7440-66-6	Zinc	50.9		E	P
	Cyanide	1.5			C

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SDBZ-2B

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 124981

Matrix (soil/water): SOIL Lab Sample ID: 125329

Level (low/med): _____ Date Received: 12/07/90

% Solids: 80.3

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

CAS No.	Analyte	Concentration	C	M	Q
7429-90-5	Aluminum	8640			P
7440-36-0	Antimony	12.4	U	N	P
7440-38-2	Arsenic	4.2		SN	F
7440-39-3	Barium	93.4		N*	P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	2.2		N	P
7440-70-2	Calcium	125000			P
7440-47-3	Chromium	45.4			P
7440-48-4	Cobalt	10.3	U		P
7440-50-8	Copper	30.6			P
7439-89-6	Iron	23400			P
7439-92-1	Lead	255		EN	P
7439-95-4	Magnesium	13200			P
7439-96-5	Manganese	327			P
7439-97-6	Mercury	0.05			CV
7440-02-0	Nickel	18.9		N	P
7440-09-7	Potassium	1030	U		P
7782-49-2	Selenium	7.3	U	N	F
7440-22-4	Silver	2.1	U	N	P
7440-23-5	Sodium	1030	U		P
7440-28-0	Thallium	1.5	U	WN	F
7440-62-2	Vanadium	22.4			P
7440-66-6	Zinc	136		E	P
	Cyanide	0.72	U		C

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: SSBZ-10

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 124981

Matrix (soil/water): SOIL Lab Sample ID: 125330

Level (low/med): _____ Date Received: 12/07/90

% Solids: 79.4

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

CAS No.	Analyte	Concentration	C	M	Q
7429-90-5	Aluminum	17800			P
7440-36-0	Antimony	8.1	U	N	P
7440-38-2	Arsenic	12.6		SN	F
7440-39-3	Barium	430		N*	P
7440-41-7	Beryllium	0.86			P
7440-43-9	Cadmium	2.4		N	P
7440-70-2	Calcium	56600			P
7440-47-3	Chromium	25.6			P
7440-48-4	Cobalt	11.8			P
7440-50-8	Copper	21.6			P
7439-89-6	Iron	33500			P
7439-92-1	Lead	16.8		S	F
7439-95-4	Magnesium	14600			P
7439-96-5	Manganese	619			P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	29.7		N	P
7440-09-7	Potassium	3290			P
7782-49-2	Selenium	6.9	U	N	F
7440-22-4	Silver	1.3	U	N	P
7440-23-5	Sodium	674	U		P
7440-28-0	Thallium	1.4	U	WN	F
7440-62-2	Vanadium	33.4			P
7440-66-6	Zinc	68.8		E	P
	Cyanide	0.73	U		C

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: SSBZ-10D

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 124981

Matrix (soil/water): SOIL Lab Sample ID: 125330DP

Level (low/med): _____ Date Received: 12/07/90

% Solids: 78.7

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

CAS No.	Analyte	Concentration	C	M	Q
7429-90-5	Aluminum	16000			P
7440-36-0	Antimony	8.1	U	N	P
7440-38-2	Arsenic	13.2		SN	F
7440-39-3	Barium	113		N*	P
7440-41-7	Beryllium	0.80			P
7440-43-9	Cadmium	2.2		N	P
7440-70-2	Calcium	62800			P
7440-47-3	Chromium	23.7			P
7440-48-4	Cobalt	10.9			P
7440-50-8	Copper	21.5			P
7439-89-6	Iron	30400			P
7439-92-1	Lead	14.3		S	F
7439-95-4	Magnesium	12600			P
7439-96-5	Manganese	579			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	25.7		N	P
7440-09-7	Potassium	2770			P
7782-49-2	Selenium	7.3	U	WN	F
7440-22-4	Silver	1.4	U	N	P
7440-23-5	Sodium	676	U		P
7440-28-0	Thallium	1.5	U	WN	F
7440-62-2	Vanadium	30.9			P
7440-66-6	Zinc	68.6		E	P
	Cyanide	0.74	U		C

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: SSBZ-10S

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 124981

Matrix (soil/water): SOIL Lab Sample ID: 125330MS

Level (low/med): _____ Date Received: 12/07/90

% Solids: 78.6

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

CAS No.	Analyte	Concentration	C	M	Q
7429-90-5	Aluminum				NR
7440-36-0	Antimony	8.9		N	P
7440-38-2	Arsenic	16.9		SN	F
7440-39-3	Barium	321		N*	P
7440-41-7	Beryllium	6.3			P
7440-43-9	Cadmium	7.5		N	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	49.1			P
7440-48-4	Cobalt	67.1			P
7440-50-8	Copper	47.5			P
7439-89-6	Iron				NR
7439-92-1	Lead	14.3		S	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese	637			P
7439-97-6	Mercury	0.68			CV
7440-02-0	Nickel	75.6		N	P
7440-09-7	Potassium				NR
7782-49-2	Selenium	7.3	U	N	F
7440-22-4	Silver	4.7		N	P
7440-23-5	Sodium				NR
7440-28-0	Thallium	2.1		N	F
7440-62-2	Vanadium	88.2			P
7440-66-6	Zinc	127		E	P
	Cyanide	7.2			C

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: PBS1

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 124981

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

Level (low/med): _____ Date Received: _____

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	M	Q
7429-90-5	Aluminum	16.0	U		P
7440-36-0	Antimony	10.1	U	N	P
7440-38-2	Arsenic	0.52	U	N	F
7440-39-3	Barium	4.5	U	N*	P
7440-41-7	Beryllium	0.40	U		P
7440-43-9	Cadmium	0.73	U	N	P
7440-70-2	Calcium	74.1	U		P
7440-47-3	Chromium	1.7	U		P
7440-48-4	Cobalt	3.9	U		P
7440-50-8	Copper	3.7	U		P
7439-89-6	Iron	6.7	U		P
7439-92-1	Lead	0.13	U		F
7439-95-4	Magnesium	89.9	U		P
7439-96-5	Manganese	1.2	U		P
7439-97-6	Mercury	0.09	B		CV
7440-02-0	Nickel	4.6	U	N	P
7440-09-7	Potassium	114	U		P
7782-49-2	Selenium	0.24	U	N	F
7440-22-4	Silver	1.6	U	N	P
7440-23-5	Sodium	70.9	U		P
7440-28-0	Thallium	0.25	U	N	F
7440-62-2	Vanadium	6.2	U		P
7440-66-6	Zinc	2.1	U	E	P
	Cyanide	0.01	U		C

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBS2

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 124981

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

Level (low/med): _____ Date Received: _____

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	M	Q
7429-90-5	Aluminum	21.9	B		P
7440-36-0	Antimony	6.1	U	N	P
7440-38-2	Arsenic	0.20	U	N	F
7440-39-3	Barium	10.9	U	N*	P
7440-41-7	Beryllium	0.14	B		P
7440-43-9	Cadmium	0.62	U	N	P
7440-70-2	Calcium	-157	B		P
7440-47-3	Chromium	0.38	U		P
7440-48-4	Cobalt	1.1	U		P
7440-50-8	Copper	1.2	U		P
7439-89-6	Iron	-4.9	B		P
7439-92-1	Lead	0.05	U		F
7439-95-4	Magnesium	-75.5	B		P
7439-96-5	Manganese	0.24	B		P
7439-97-6	Mercury	0.09	B		CV
7440-02-0	Nickel	1.7	U	N	P
7440-09-7	Potassium	47.6	B		P
7782-49-2	Selenium	0.18	U	N	F
7440-22-4	Silver	0.60	U	N	P
7440-23-5	Sodium	-93.6	B		P
7440-28-0	Thallium	-0.17	B	N	F
7440-62-2	Vanadium	0.57	B		P
7440-66-6	Zinc	0.40	U	E	P
	Cyanide	0.01	U		C

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: PBS3

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 124981

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

Level (low/med): _____ Date Received: _____

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	M	Q
7429-90-5	Aluminum	9.8	B		P
7440-36-0	Antimony	3.0	U	N	P
7440-38-2	Arsenic	0.52	U	N	F
7440-39-3	Barium	5.5	U	N*	P
7440-41-7	Beryllium	0.07	B		P
7440-43-9	Cadmium	0.31	U	N	P
7440-70-2	Calcium	-79.4	B		P
7440-47-3	Chromium	0.77	B		P
7440-48-4	Cobalt	2.2	U		P
7440-50-8	Copper	0.58	U		P
7439-89-6	Iron	-2.7	B		P
7439-92-1	Lead	0.14	U		F
7439-95-4	Magnesium	-39.5	B		P
7439-96-5	Manganese	0.68	B		P
7439-97-6	Mercury				NR
7440-02-0	Nickel	2.6	B	N	P
7440-09-7	Potassium	20.7	U		P
7782-49-2	Selenium	0.48	U	N	F
7440-22-4	Silver	0.60	U	N	P
7440-23-5	Sodium	-39.8	B		P
7440-28-0	Thallium	-0.59	B	N	F
7440-62-2	Vanadium	1.1	U		P
7440-66-6	Zinc	0.79	U	E	P
	Cyanide				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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ENVIRONMENTAL SERVICES
75 Green Mountain Drive, So. Burlington, VT 05403
TEL. 802/658-1074

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LMS ENGINEERS

ANALYTICAL REPORT

Lawler,Matusky,and
Skelly Engineers
P.O.Box 1509
Pearl River, NY 10965

Attention : Dr.William Ahlert

Date : 01/03/91
ETR Number : 24147
Project No.: 89133
No. Samples: 4
Arrived : 11/29/90
P.O. Number: *

Brzezinski Soils SDG:124981

Standard analyses were performed in accordance with Methods for Analysis of Water and Wastes, EPA-600/4/79-020, Test Methods for Evaluating Solid Waste, SW-846, or Standard Methods for the Examination of Water and Wastewater.
All results are in mg/l unless otherwise noted.

Lab No./ Method No.	Sample Description/ Parameter		Result
124981	BZMW-5:(Soil)		
	IN623	% Solids	76.8 c
	IN703	Reactivity Description - Don't Report	*
	IN703	Reactive Cyanide	<35 e
	IN703	Reactive Sulfide	<48 e
124982	BZMW-5:(EPToxExt)		
	6010	Arsenic, Total	<1
	6010	Barium, Total	<10
	6010	Cadmium, Total	<0.1
	6010	Chromium, Total	<1
	6010	Lead, Total	<1
	7470	Mercury, Total	<0.04
	7740	Selenium, Total	<0.1
	6010	Silver, Total	<1
124983	BZMW-4:(Soil)		
	IN623	% Solids	73.6 c
	IN703	Reactivity Description	*
	IN703	Reactive Cyanide	<35 e
	IN703	Reactive Sulfide	<48 e

Comments/Notes

c = %W/W as received
e = mg/Kg as received
* = Non-explosive

< Cont. Next Page >

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75 Green Mountain Drive, So. Burlington, VT 05403
TEL. 802/658-1074

ANALYTICAL REPORT

Lawler,Matusky,and
Skelly Engineers
P.O.Box 1509
Pearl River, NY 10965

Attention : Dr.William Ahlert

Date : 01/03/91
ETR Number : 24147
Project No.: 89133
No. Samples: 4
Arrived : 11/29/90
P.O. Number: *

Brzezinski Soils SDG:124981

Standard analyses were performed in accordance with Methods for Analysis of Water and Wastes, EPA-600/4/79-020, Test Methods for Evaluating Solid Waste, SW-846, or Standard Methods for the Examination of Water and Wastewater. All results are in mg/l unless otherwise noted.

Lab No./ Method No.	Sample Description/ Parameter	Result
124984	BZMW-4:(EPToxExt)	
6010	Arsenic, Total	<1
6010	Barium, Total	<10
6010	Cadmium, Total	<0.1
6010	Chromium, Total	<1
6010	Lead, Total	<1
7470	Mercury, Total	<0.04
7740	Selenium, Total	<0.1
6010	Silver, Total	<1

< Last Page > Submitted By : Aquatec Inc.

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ENVIRONMENTAL SERVICES
75 Green Mountain Drive, So. Burlington, VT 05403
TEL. 802/658-1074

ANALYTICAL REPORT

Lawler,Matusky,and
Skelly Engineers
P.O.Box 1509
Pearl River, NY 10965

Attention : Dr.William Ahlert

Date : 01/03/91
ETR Number : 24151
Project No.: 89133
No. Samples: 6
Arrived : 11/30/90
P.O. Number: *

Brzezinski Soils SDG:124981

Standard analyses were performed in accordance with Methods for Analysis of Water and Wastes, EPA-600/4/79-020, Test Methods for Evaluating Solid Waste, SW-846, or Standard Methods for the Examination of Water and Wastewater. All results are in mg/l unless otherwise noted.

Lab No./	Sample Description/ Method No.	Parameter	Result
124989	BZTB-1:(Soil)		
	IN623	% Solids	76.1 c
	IN703	Reactivity Description	*
	IN703	Reactive Cyanide	<35 e
	IN703	Reactive Sulfide	<48 e
124990	BZTB-1:(EPToxExt)		
	6010	Arsenic, Total	<1
	6010	Barium, Total	<10
	6010	Cadmium, Total	<0.1
	6010	Chromium, Total	<1
	6010	Lead, Total	<1
	7470	Mercury, Total	<0.04
	7740	Selenium, Total	<0.1
	6010	Silver, Total	<1
124991	BZTB-2:(Soil)		
	IN623	% Solids	81.5 c
	IN703	Reactivity Description	*
	IN703	Reactive Cyanide	<35 e
	IN703	Reactive Sulfide	<48 e
124992	BZTB-2:(EPToxExt)		
	6010	Arsenic, Total	<1
	6010	Barium, Total	<10

Comments/Notes

c = %W/W as received
e = mg/Kg as received

< Cont. Next Page >

aquatec
ENVIRONMENTAL SERVICES
75 Green Mountain Drive, So. Burlington, VT 05403
TEL. 802/658-1074

ANALYTICAL REPORT

Lawler,Matusky,and
Skelly Engineers
P.O.Box 1509
Pearl River, NY 10965

Attention : Dr.William Ahlert

Date : 01/03/91
ETR Number : 24151
Project No.: 89133
No. Samples: 6
Arrived : 11/30/90
P.O. Number: *

Brzezinski Soils SDG:124981

Standard analyses were performed in accordance with Methods for Analysis of Water and Wastes, EPA-600/4/79-020, Test Methods for Evaluating Solid Waste, SW-846, or Standard Methods for the Examination of Water and Wastewater. All results are in mg/l unless otherwise noted.

Lab No./ Method No.	Sample Description/ Parameter		Result
124992	BZTB-2:(EPToxExt)		
	6010	Cadmium, Total	<0.1
	6010	Chromium, Total	<1
	6010	Lead, Total	<1
	7470	Mercury, Total	<0.04
	7740	Selenium, Total	<0.1
	6010	Silver, Total	<1
124993	BZTB-3:(Soil)		
	IN623	% Solids	85.4 c
	IN703	Reactivity Description	*
	IN703	Reactive Cyanide	<35 e
	IN703	Reactive Sulfide	<48 e
124994	BZTB-3:(EPToxExt)		
	6010	Arsenic, Total	<1
	6010	Barium, Total	<10
	6010	Cadmium, Total	<0.1
	6010	Chromium, Total	<1
	6010	Lead, Total	<1
	7470	Mercury, Total	<0.04
	7740	Selenium, Total	<0.1
	6010	Silver, Total	<1

Comments/Notes

c = %W/W as received
e = mg/Kg as received
* = Non-explosive

< Last Page > Submitted By : Aquatec Inc.

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TEL. 802/658-1074

ANALYTICAL REPORT

Lawler,Matusky,and
Skelly Engineers
P.O.Box 1509
Pearl River, NY 10965

Attention : Dr.William Ahlert

Date : 01/03/91
ETR Number : 24182
Project No.: 89133
No. Samples: 2
Arrived : 12/01/90
P.O. Number: *

Brzezinski Soils SDG:124981

Standard analyses were performed in accordance with Methods for Analysis of Water and Wastes, EPA-600/4/79-020, Test Methods for Evaluating Solid Waste, SW-846, or Standard Methods for the Examination of Water and Wastewater.
All results are in mg/l unless otherwise noted.

Lab No./ Method No.	Sample Description/ Parameter	Result
125053	BZTB-4:(Soil)	
IN623	% Solids	79.2 c
IN703	Reactivity Description	*
IN703	Reactive Cyanide	<35 e
IN703	Reactive Sulfide	<48 e
125054	BZTB-4:(EPToxExt)	
6010	Arsenic, Total	<1
6010	Barium, Total	<10
6010	Cadmium, Total	<0.1
6010	Chromium, Total	<1
6010	Lead, Total	<1
7470	Mercury, Total	<0.04
7740	Selenium, Total	<0.1
6010	Silver, Total	<1

Comments/Notes

c = %W/W as received
e = mg/Kg as received
* = Non-explosive

 Submitted By : Aquatec Inc.

aquatec
ENVIRONMENTAL SERVICES
75 Green Mountain Drive, So. Burlington, VT 05403
TEL. 802/658-1074

ANALYTICAL REPORT

Lawler, Matusky and Skelly Engineers

Date: 7 January 1991
Project No: 89133
ETR No: 24147, 24151, 24182
Sample(s) Received On: 29, 30 November 1990
Page 1 of 1 01 December 1990

Standard analyses were performed in accordance with Methods for Analysis of Water and Wastes, EPA-600/4/79-020, Test Methods for Evaluating Solid Waste, SW-846, or Standard Methods for the Examination of Water and Wastewater. All results are in mg/l unless otherwise noted.

Parameter	Blank							
Arsenic	<1							
Barium	<10							
Cadmium	<0.1							
Chromium	<1							
Lead	<1							
Mercury	<0.04							
Selenium	<0.1							
Silver	<1							

Lab No.	Sample Description
Blank.	Method blank for Eptox Extract samples labeled BZMW-5, BZMW-4, BZTB-1, BZTB-2, BZTB-3 and BZTB-4.

Submitted By: Aquatec Inc.

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BZMW-5

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: 124981

Sample wt/vol: 3.3 (g/mL) G Lab File ID: D124981V

Level: (low/med) LOW Date Received: 11/29/90

% Moisture: not dec. 21 Date Analyzed: 12/05/90

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	19	U
74-83-9	Bromomethane	19	U
75-01-4	Vinyl Chloride	19	U
75-00-3	Chloroethane	19	U
75-09-2	Methylene Chloride	2	BJ
67-64-1	Acetone	17	BJ
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	19	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
108-05-4	Vinyl Acetate	19	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	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	19	U
591-78-6	2-Hexanone	19	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	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BZMW-5

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: 124981

Sample wt/vol: 3.3 (g/mL) G Lab File ID: D124981V

Level: (low/med) LOW Date Received: 11/29/90

% Moisture: not dec. 21 Date Analyzed: 12/05/90

Column: (pack/cap) PACK Dilution Factor: 1.0

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

EPA SAMPLE NO.

BZMW-4

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: 124983

Sample wt/vol: 3.3 (g/mL) G Lab File ID: D124983V

Level: (low/med) LOW Date Received: 11/29/90

% Moisture: not dec. 22 Date Analyzed: 12/05/90

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	19	U
74-83-9	Bromomethane	19	U
75-01-4	Vinyl Chloride	19	U
75-00-3	Chloroethane	19	U
75-09-2	Methylene Chloride	2	BJ
67-64-1	Acetone	8	BJ
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	19	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
108-05-4	Vinyl Acetate	19	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	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	19	U
591-78-6	2-Hexanone	19	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	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BZMW-4

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: 124983

Sample wt/vol: 3.3 (g/mL) G Lab File ID: D124983V

Level: (low/med) LOW Date Received: 11/29/90

% Moisture: not dec. 22 Date Analyzed: 12/05/90

Column: (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	75-28-5	2-METHYLPROPANE	4.75	11	BJ
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BZTB-1

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: 124989

Sample wt/vol: 3.3 (g/mL) G Lab File ID: D124989V

Level: (low/med) LOW Date Received: 11/30/90

% Moisture: not dec. 14 Date Analyzed: 12/05/90

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	18	U
74-83-9	Bromomethane	18	U
75-01-4	Vinyl Chloride	18	U
75-00-3	Chloroethane	18	U
75-09-2	Methylene Chloride	3	BJ
67-64-1	Acetone	31	B
75-15-0	Carbon Disulfide	6	J
75-35-4	1,1-Dichloroethene	9	U
75-34-3	1,1-Dichloroethane	9	U
540-59-0	1,2-Dichloroethene (total)	9	U
67-66-3	Chloroform	9	U
107-06-2	1,2-Dichloroethane	9	U
78-93-3	2-Butanone	18	U
71-55-6	1,1,1-Trichloroethane	9	U
56-23-5	Carbon Tetrachloride	9	U
108-05-4	Vinyl Acetate	18	U
75-27-4	Bromodichloromethane	9	U
78-87-5	1,2-Dichloropropane	9	U
10061-01-5	cis-1,3-Dichloropropene	9	U
79-01-6	Trichloroethene	9	U
124-48-1	Dibromochloromethane	9	U
79-00-5	1,1,2-Trichloroethane	9	U
71-43-2	Benzene	3	J
10061-02-6	trans-1,3-Dichloropropene	9	U
75-25-2	Bromoform	9	U
108-10-1	4-Methyl-2-Pentanone	18	U
591-78-6	2-Hexanone	18	U
127-18-4	Tetrachloroethene	9	U
79-34-5	1,1,2,2-Tetrachloroethane	9	U
108-88-3	Toluene	6	J
108-90-7	Chlorobenzene	9	U
100-41-4	Ethylbenzene	2	J
100-42-5	Styrene	9	U
1330-20-7	Xylene (total)	6	J

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BZTB-1

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: 124989

Sample wt/vol: 3.3 (g/mL) G Lab File ID: D124989V

Level: (low/med) LOW Date Received: 11/30/90

% Moisture: not dec. 14 Date Analyzed: 12/05/90

Column: (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 2

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN TERPENE	24.60	24	J
2.		UNKNOWN ETHYLMETHYLBENZENE	34.40	9	J
3.					
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BZTB-2

Lab Name:AQUATEC, INC. Contract:89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water)SOIL Lab Sample ID: 124991

Sample wt/vol: 3.5 (g/mL)G Lab File ID: D124991V

Level: (low/med) LOW Date Received: 11/30/90

% Moisture: not dec.18 Date Analyzed: 12/05/90

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/KG	Q
74-87-3	Chloromethane	17	U
74-83-9	Bromomethane	17	U
75-01-4	Vinyl Chloride	17	U
75-00-3	Chloroethane	5	J
75-09-2	Methylene Chloride	2	BJ
67-64-1	Acetone	71	B
75-15-0	Carbon Disulfide	9	U
75-35-4	1,1-Dichloroethene	9	U
75-34-3	1,1-Dichloroethane	9	U
540-59-0	1,2-Dichloroethene (total)	9	U
67-66-3	Chloroform	9	U
107-06-2	1,2-Dichloroethane	9	U
78-93-3	2-Butanone	15	J
71-55-6	1,1,1-Trichloroethane	9	U
56-23-5	Carbon Tetrachloride	9	U
108-05-4	Vinyl Acetate	17	U
75-27-4	Bromodichloromethane	9	U
78-87-5	1,2-Dichloropropane	9	U
10061-01-5	cis-1,3-Dichloropropene	9	U
79-01-6	Trichloroethene	3	J
124-48-1	Dibromochloromethane	9	U
79-00-5	1,1,2-Trichloroethane	9	U
71-43-2	Benzene	9	U
10061-02-6	trans-1,3-Dichloropropene	9	U
75-25-2	Bromoform	9	U
108-10-1	4-Methyl-2-Pentanone	17	U
591-78-6	2-Hexanone	17	U
127-18-4	Tetrachloroethene	9	U
79-34-5	1,1,2,2-Tetrachloroethane	9	U
108-88-3	Toluene	2	J
108-90-7	Chlorobenzene	9	U
100-41-4	Ethylbenzene	9	U
100-42-5	Styrene	9	U
1330-20-7	Xylene (total)	9	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BZTB-2

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: 124991

Sample wt/vol: 3.5 (g/mL) G Lab File ID: D124991V

Level: (low/med) LOW Date Received: 11/30/90

% Moisture: not dec. 18 Date Analyzed: 12/05/90

Column: (pack/cap) PACK Dilution Factor: 1.0

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

EPA SAMPLE NO.

BZTB-3

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: 124993

Sample wt/vol: 3.4 (g/mL) G Lab File ID: D124993V

Level: (low/med) LOW Date Received: 11/30/90

% Moisture: not dec. 11 Date Analyzed: 12/05/90

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	17	U
74-83-9	Bromomethane	17	U
75-01-4	Vinyl Chloride	17	U
75-00-3	Chloroethane	17	U
75-09-2	Methylene Chloride	3	BJ
67-64-1	Acetone	37	B
75-15-0	Carbon Disulfide	10	
75-35-4	1,1-Dichloroethene	8	U
75-34-3	1,1-Dichloroethane	8	U
540-59-0	1,2-Dichloroethene (total)	8	U
67-66-3	Chloroform	8	U
107-06-2	1,2-Dichloroethane	8	U
78-93-3	2-Butanone	17	U
71-55-6	1,1,1-Trichloroethane	8	U
56-23-5	Carbon Tetrachloride	8	U
108-05-4	Vinyl Acetate	17	U
75-27-4	Bromodichloromethane	8	U
78-87-5	1,2-Dichloropropane	8	U
10061-01-5	cis-1,3-Dichloropropene	8	U
79-01-6	Trichloroethene	8	U
124-48-1	Dibromochloromethane	8	U
79-00-5	1,1,2-Trichloroethane	8	U
71-43-2	Benzene	3	J
10061-02-6	trans-1,3-Dichloropropene	8	U
75-25-2	Bromoform	8	U
108-10-1	4-Methyl-2-Pentanone	17	U
591-78-6	2-Hexanone	17	U
127-18-4	Tetrachloroethene	8	U
79-34-5	1,1,2,2-Tetrachloroethane	8	U
108-88-3	Toluene	6	J
108-90-7	Chlorobenzene	8	U
100-41-4	Ethylbenzene	8	U
100-42-5	Styrene	8	U
1330-20-7	Xylene (total)	8	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BZTB-3

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: 124993

Sample wt/vol: 3.4 (g/mL) G Lab File ID: D124993V

Level: (low/med) LOW Date Received: 11/30/90

% Moisture: not dec. 11 Date Analyzed: 12/05/90

Column: (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 3

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN TERPENE	24.80	2400	J
2.		UNKNOWN TERPENE	25.40	48	J
3.		UNKNOWN HYDROCARBON	30.40	9	J
4.					
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BZTB-4

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: 125053

Sample wt/vol: 3.5 (g/mL) G Lab File ID: D125053I2V

Level: (low/med) LOW Date Received: 12/01/90

% Moisture: not dec. 24 Date Analyzed: 12/07/90

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	19	U
74-83-9	Bromomethane	19	U
75-01-4	Vinyl Chloride	19	U
75-00-3	Chloroethane	53	
75-09-2	Methylene Chloride	10	B
67-64-1	Acetone	19	B
75-15-0	Carbon Disulfide	9	U
75-35-4	1,1-Dichloroethene	9	U
75-34-3	1,1-Dichloroethane	9	U
540-59-0	1,2-Dichloroethene (total)	9	U
67-66-3	Chloroform	9	U
107-06-2	1,2-Dichloroethane	9	U
78-93-3	2-Butanone	19	U
71-55-6	1,1,1-Trichloroethane	9	U
56-23-5	Carbon Tetrachloride	9	U
108-05-4	Vinyl Acetate	19	U
75-27-4	Bromodichloromethane	9	U
78-87-5	1,2-Dichloropropane	9	U
10061-01-5	cis-1,3-Dichloropropene	9	U
79-01-6	Trichloroethene	9	U
124-48-1	Dibromochloromethane	9	U
79-00-5	1,1,2-Trichloroethane	9	U
71-43-2	Benzene	2	J
10061-02-6	trans-1,3-Dichloropropene	9	U
75-25-2	Bromoform	9	U
108-10-1	4-Methyl-2-Pentanone	19	U
591-78-6	2-Hexanone	19	U
127-18-4	Tetrachloroethene	9	U
79-34-5	1,1,2,2-Tetrachloroethane	9	U
108-88-3	Toluene	2	J
108-90-7	Chlorobenzene	9	U
100-41-4	Ethylbenzene	9	U
100-42-5	Styrene	9	U
1330-20-7	Xylene (total)	17	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BZTB-4

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: 125053

Sample wt/vol: 3.5 (g/mL) G Lab File ID: D125053I2V

Level: (low/med) LOW Date Received: 12/01/90

% Moisture: not dec. 24 Date Analyzed: 12/07/90

Column: (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SDBZ-1B

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: 125328

Sample wt/vol: 3.5 (g/mL) G Lab File ID: D125328V

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec. 15 Date Analyzed: 12/14/90

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	17	U
74-83-9	Bromomethane	17	U
75-01-4	Vinyl Chloride	17	U
75-00-3	Chloroethane	17	U
75-09-2	Methylene Chloride	2	BJ
67-64-1	Acetone	17	U
75-15-0	Carbon Disulfide	8	U
75-35-4	1,1-Dichloroethene	8	U
75-34-3	1,1-Dichloroethane	8	U
540-59-0	1,2-Dichloroethene (total)	8	U
67-66-3	Chloroform	8	U
107-06-2	1,2-Dichloroethane	8	U
78-93-3	2-Butanone	17	U
71-55-6	1,1,1-Trichloroethane	8	U
56-23-5	Carbon Tetrachloride	8	U
108-05-4	Vinyl Acetate	17	U
75-27-4	Bromodichloromethane	8	U
78-87-5	1,2-Dichloropropane	8	U
10061-01-5	cis-1,3-Dichloropropene	8	U
79-01-6	Trichloroethene	8	U
124-48-1	Dibromochloromethane	8	U
79-00-5	1,1,2-Trichloroethane	8	U
71-43-2	Benzene	8	U
10061-02-6	trans-1,3-Dichloropropene	8	U
75-25-2	Bromoform	8	U
108-10-1	4-Methyl-2-Pentanone	17	U
591-78-6	2-Hexanone	17	U
127-18-4	Tetrachloroethene	8	U
79-34-5	1,1,2,2-Tetrachloroethane	8	U
108-88-3	Toluene	8	U
108-90-7	Chlorobenzene	8	U
100-41-4	Ethylbenzene	8	U
100-42-5	Styrene	8	U
1330-20-7	Xylene (total)	8	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SDBZ-1B

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: 125328

Sample wt/vol: 3.5 (g/mL) G Lab File ID: D125328V

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec. 15 Date Analyzed: 12/14/90

Column: (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	75-28-5	2-METHYLPROPANE	4.75	9	BJ
2.					
3.					
4.					
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SDBZ-2B

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: 125329

Sample wt/vol: 3.9 (g/mL) G Lab File ID: D125329V

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec. 19 Date Analyzed: 12/14/90

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	16	U
74-83-9	Bromomethane	16	U
75-01-4	Vinyl Chloride	16	U
75-00-3	Chloroethane	16	U
75-09-2	Methylene Chloride	2	BJ
67-64-1	Acetone	16	U
75-15-0	Carbon Disulfide	8	U
75-35-4	1,1-Dichloroethene	8	U
75-34-3	1,1-Dichloroethane	8	U
540-59-0	1,2-Dichloroethene (total)	8	U
67-66-3	Chloroform	8	U
107-06-2	1,2-Dichloroethane	8	U
78-93-3	2-Butanone	16	U
71-55-6	1,1,1-Trichloroethane	8	U
56-23-5	Carbon Tetrachloride	8	U
108-05-4	Vinyl Acetate	16	U
75-27-4	Bromodichloromethane	8	U
78-87-5	1,2-Dichloropropane	8	U
10061-01-5	cis-1,3-Dichloropropene	8	U
79-01-6	Trichloroethene	8	U
124-48-1	Dibromochloromethane	8	U
79-00-5	1,1,2-Trichloroethane	8	U
71-43-2	Benzene	8	U
10061-02-6	trans-1,3-Dichloropropene	8	U
75-25-2	Bromoform	8	U
108-10-1	4-Methyl-2-Pentanone	16	U
591-78-6	2-Hexanone	16	U
127-18-4	Tetrachloroethene	8	U
79-34-5	1,1,2,2-Tetrachloroethane	8	U
108-88-3	Toluene	8	U
108-90-7	Chlorobenzene	8	U
100-41-4	Ethylbenzene	8	U
100-42-5	Styrene	8	U
1330-20-7	Xylene (total)	8	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SDBZ-2B

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: 125329

Sample wt/vol: 3.9 (g/mL) G Lab File ID: D125329V

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec. 19 Date Analyzed: 12/14/90

Column: (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SSBZ-10

Lab Name:AQUATEC, INC. Contract:89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water)SOIL Lab Sample ID: 125330

Sample wt/vol: 3.6 (g/mL)G Lab File ID: D125330V

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec.20 Date Analyzed: 12/14/90

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/KG	Q
74-87-3	Chloromethane	17	U
74-83-9	Bromomethane	17	U
75-01-4	Vinyl Chloride	17	U
75-00-3	Chloroethane	17	U
75-09-2	Methylene Chloride	3	BJ
67-64-1	Acetone	17	U
75-15-0	Carbon Disulfide	9	U
75-35-4	1,1-Dichloroethene	9	U
75-34-3	1,1-Dichloroethane	9	U
540-59-0	1,2-Dichloroethene (total)	9	U
67-66-3	Chloroform	9	U
107-06-2	1,2-Dichloroethane	9	U
78-93-3	2-Butanone	17	U
71-55-6	1,1,1-Trichloroethane	9	U
56-23-5	Carbon Tetrachloride	9	U
108-05-4	Vinyl Acetate	17	U
75-27-4	Bromodichloromethane	9	U
78-87-5	1,2-Dichloropropane	9	U
10061-01-5	cis-1,3-Dichloropropene	9	U
79-01-6	Trichloroethene	9	U
124-48-1	Dibromochloromethane	9	U
79-00-5	1,1,2-Trichloroethane	9	U
71-43-2	Benzene	9	U
10061-02-6	trans-1,3-Dichloropropene	9	U
75-25-2	Bromoform	9	U
108-10-1	4-Methyl-2-Pentanone	17	U
591-78-6	2-Hexanone	17	U
127-18-4	Tetrachloroethene	9	U
79-34-5	1,1,2,2-Tetrachloroethane	9	U
108-88-3	Toluene	9	U
108-90-7	Chlorobenzene	9	U
100-41-4	Ethylbenzene	9	U
100-42-5	Styrene	9	U
1330-20-7	Xylene (total)	9	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SSBZ-10

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: 125330

Sample wt/vol: 3.6 (g/mL) G Lab File ID: D125330V

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec. 20 Date Analyzed: 12/14/90

Column: (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKD1

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: DPFB001QV

Sample wt/vol: 3.6 (g/mL) G Lab File ID: DPFB001QV

Level: (low/med) LOW Date Received: 00/00/00

% Moisture: not dec. 0 Date Analyzed: 12/05/90

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	14	U
74-83-9	Bromomethane	14	U
75-01-4	Vinyl Chloride	14	U
75-00-3	Chloroethane	14	U
75-09-2	Methylene Chloride	5	J
67-64-1	Acetone	3	J
75-15-0	Carbon Disulfide	7	U
75-35-4	1,1-Dichloroethene	7	U
75-34-3	1,1-Dichloroethane	7	U
540-59-0	1,2-Dichloroethene (total)	7	U
67-66-3	Chloroform	7	U
107-06-2	1,2-Dichloroethane	7	U
78-93-3	2-Butanone	14	U
71-55-6	1,1,1-Trichloroethane	7	U
56-23-5	Carbon Tetrachloride	7	U
108-05-4	Vinyl Acetate	14	U
75-27-4	Bromodichloromethane	7	U
78-87-5	1,2-Dichloropropane	7	U
10061-01-5	cis-1,3-Dichloropropene	7	U
79-01-6	Trichloroethene	7	U
124-48-1	Dibromochloromethane	7	U
79-00-5	1,1,2-Trichloroethane	7	U
71-43-2	Benzene	7	U
10061-02-6	trans-1,3-Dichloropropene	7	U
75-25-2	Bromoform	7	U
108-10-1	4-Methyl-2-Pentanone	14	U
591-78-6	2-Hexanone	14	U
127-18-4	Tetrachloroethene	7	U
79-34-5	1,1,2,2-Tetrachloroethane	7	U
108-88-3	Toluene	7	U
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	7	U
100-42-5	Styrene	7	U
1330-20-7	Xylene (total)	7	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKD1

Lab Name:AQUATEC, INC. Contract:89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water)SOIL Lab Sample ID: DPFB001QV

Sample wt/vol: 3.6 (g/mL)G Lab File ID: DPFB001QV

Level: (low/med) LOW Date Received: 00/00/00

% Moisture: not dec. 0 Date Analyzed: 12/05/90

Column: (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	1.75-28-2	2-METHYLPROPANE	4.75	4	J
2.					
3.					
4.					
5.					
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKF6

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: DPHB003HV

Sample wt/vol: 3.6 (g/mL) G Lab File ID: DPHB003HV

Level: (low/med) LOW Date Received: 00/00/00

% Moisture: not dec. 0 Date Analyzed: 12/07/90

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	14	U
74-83-9	Bromomethane	14	U
75-01-4	Vinyl Chloride	14	U
75-00-3	Chloroethane	14	U
75-09-2	Methylene Chloride	7	
67-64-1	Acetone	5	J
75-15-0	Carbon Disulfide	7	U
75-35-4	1,1-Dichloroethene	7	U
75-34-3	1,1-Dichloroethane	7	U
540-59-0	1,2-Dichloroethene (total)	7	U
67-66-3	Chloroform	7	U
107-06-2	1,2-Dichloroethane	7	U
78-93-3	2-Butanone	14	U
71-55-6	1,1,1-Trichloroethane	7	U
56-23-5	Carbon Tetrachloride	7	U
108-05-4	Vinyl Acetate	14	U
75-27-4	Bromodichloromethane	7	U
78-87-5	1,2-Dichloropropane	7	U
10061-01-5	cis-1,3-Dichloropropene	7	U
79-01-6	Trichloroethene	7	U
124-48-1	Dibromochloromethane	7	U
79-00-5	1,1,2-Trichloroethane	7	U
71-43-2	Benzene	7	U
10061-02-6	trans-1,3-Dichloropropene	7	U
75-25-2	Bromoform	7	U
108-10-1	4-Methyl-2-Pentanone	14	U
591-78-6	2-Hexanone	14	U
127-18-4	Tetrachloroethene	7	U
79-34-5	1,1,2,2-Tetrachloroethane	7	U
108-88-3	Toluene	7	U
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	7	U
100-42-5	Styrene	7	U
1330-20-7	Xylene (total)	7	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKF6

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: DPHB003HV

Sample wt/vol: 3.6 (g/mL) G Lab File ID: DPHB003HV

Level: (low/med) LOW Date Received: 00/00/00

% Moisture: not dec. 0 Date Analyzed: 12/07/90

Column: (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	1.75-28-5	2-METHYLPROPANE	4.70	7	J
2.					
3.					
4.					
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKJ8

Lab Name:AQUATEC, INC. Contract:89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water)SOIL Lab Sample ID: DPLB002AV

Sample wt/vol: 3.6 (g/mL)G Lab File ID: DPLB002AV

Level: (low/med) LOW Date Received: 00/00/00

% Moisture: not dec. 0 Date Analyzed: 12/14/90

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/KG	Q
74-87-3	Chloromethane	14	U
74-83-9	Bromomethane	14	U
75-01-4	Vinyl Chloride	14	U
75-00-3	Chloroethane	14	U
75-09-2	Methylene Chloride	2	J
67-64-1	Acetone	14	U
75-15-0	Carbon Disulfide	7	U
75-35-4	1,1-Dichloroethene	7	U
75-34-3	1,1-Dichloroethane	7	U
540-59-0	1,2-Dichloroethene (total)	7	U
67-66-3	Chloroform	7	U
107-06-2	1,2-Dichloroethane	7	U
78-93-3	2-Butanone	14	U
71-55-6	1,1,1-Trichloroethane	7	U
56-23-5	Carbon Tetrachloride	7	U
108-05-4	Vinyl Acetate	14	U
75-27-4	Bromodichloromethane	7	U
78-87-5	1,2-Dichloropropane	7	U
10061-01-5	cis-1,3-Dichloropropene	7	U
79-01-6	Trichloroethene	7	U
124-48-1	Dibromochloromethane	7	U
79-00-5	1,1,2-Trichloroethane	7	U
71-43-2	Benzene	7	U
10061-02-6	trans-1,3-Dichloropropene	7	U
75-25-2	Bromoform	7	U
108-10-1	4-Methyl-2-Pentanone	14	U
591-78-6	2-Hexanone	14	U
127-18-4	Tetrachloroethene	7	U
79-34-5	1,1,2,2-Tetrachloroethane	7	U
108-88-3	Toluene	7	U
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	7	U
100-42-5	Styrene	7	U
1330-20-7	Xylene (total)	7	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKJ8

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: DPLB002AV

Sample wt/vol: 3.6 (g/mL) G Lab File ID: DPLB002AV

Level: (low/med) LOW Date Received: 00/00/00

% Moisture: not dec. 0 Date Analyzed: 12/14/90

Column: (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	75-28-5	2-METHYLPROPANE	4.70	10	J
2.					
3.					
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKK1

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: DNOB001DV

Sample wt/vol: 3.6 (g/mL) G Lab File ID: DNOB001DV

Level: (low/med) LOW Date Received: 00/00/00

% Moisture: not dec. 0 Date Analyzed: 12/14/90

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	14	U
74-83-9	Bromomethane	14	U
75-01-4	Vinyl Chloride	14	U
75-00-3	Chloroethane	14	U
75-09-2	Methylene Chloride	2	J
67-64-1	Acetone	6	J
75-15-0	Carbon Disulfide	7	U
75-35-4	1,1-Dichloroethene	7	U
75-34-3	1,1-Dichloroethane	7	U
540-59-0	1,2-Dichloroethene (total)	7	U
67-66-3	Chloroform	7	U
107-06-2	1,2-Dichloroethane	7	U
78-93-3	2-Butanone	14	U
71-55-6	1,1,1-Trichloroethane	7	U
56-23-5	Carbon Tetrachloride	7	U
108-05-4	Vinyl Acetate	14	U
75-27-4	Bromodichloromethane	7	U
78-87-5	1,2-Dichloropropane	7	U
10061-01-5	cis-1,3-Dichloropropene	7	U
79-01-6	Trichloroethene	7	U
124-48-1	Dibromochloromethane	7	U
79-00-5	1,1,2-Trichloroethane	7	U
71-43-2	Benzene	7	U
10061-02-6	trans-1,3-Dichloropropene	7	U
75-25-2	Bromoform	7	U
108-10-1	4-Methyl-2-Pentanone	14	U
591-78-6	2-Hexanone	14	U
127-18-4	Tetrachloroethene	7	U
79-34-5	1,1,2,2-Tetrachloroethane	7	U
108-88-3	Toluene	7	U
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	7	U
100-42-5	Styrene	7	U
1330-20-7	Xylene (total)	7	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKK1

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: DNOB001DV

Sample wt/vol: 3.6 (g/mL) G Lab File ID: DNOB001DV

Level: (low/med) LOW Date Received: 00/00/00

% Moisture: not dec. 0 Date Analyzed: 12/14/90

Column: (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	1.75-28-5	2-METHYLPROPANE	3.60	10	J
2.					
3.					
4.					
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SSBZ-10MS

Lab Name:AQUATEC, INC. Contract:89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water)SOIL Lab Sample ID: 125330MS

Sample wt/vol: 3.4 (g/mL)G Lab File ID: D125230MSV

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec.20 Date Analyzed: 12/14/90

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/KG	Q
74-87-3	Chloromethane	18	U
74-83-9	Bromomethane	18	U
75-01-4	Vinyl Chloride	18	U
75-00-3	Chloroethane	18	U
75-09-2	Methylene Chloride	3	BJ
67-64-1	Acetone	18	U
75-15-0	Carbon Disulfide	9	U
75-35-4	1,1-Dichloroethene		
75-34-3	1,1-Dichloroethane	9	U
540-59-0	1,2-Dichloroethene (total)	9	U
67-66-3	Chloroform	9	U
107-06-2	1,2-Dichloroethane	9	U
78-93-3	2-Butanone	18	U
71-55-6	1,1,1-Trichloroethane	9	U
56-23-5	Carbon Tetrachloride	9	U
108-05-4	Vinyl Acetate	18	U
75-27-4	Bromodichloromethane	9	U
78-87-5	1,2-Dichloropropane	9	U
10061-01-5	cis-1,3-Dichloropropene	9	U
79-01-6	Trichloroethene		
124-48-1	Dibromochloromethane	9	U
79-00-5	1,1,2-Trichloroethane	9	U
71-43-2	Benzene		
10061-02-6	trans-1,3-Dichloropropene	9	U
75-25-2	Bromoform	9	U
108-10-1	4-Methyl-2-Pentanone	18	U
591-78-6	2-Hexanone	18	U
127-18-4	Tetrachloroethene	9	U
79-34-5	1,1,2,2-Tetrachloroethane	9	U
108-88-3	Toluene		
108-90-7	Chlorobenzene		
100-41-4	Ethylbenzene		
100-42-5	Styrene	9	U
1330-20-7	Xylene (total)	9	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SSBZ-10MSD

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: 125330MD

Sample wt/vol: 3.4 (g/mL) G Lab File ID: C125330MDV

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec. 20 Date Analyzed: 12/14/90

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	18	U
74-83-9	Bromomethane	18	U
75-01-4	Vinyl Chloride	18	U
75-00-3	Chloroethane	18	U
75-09-2	Methylene Chloride	3	BJ
67-64-1	Acetone	18	U
75-15-0	Carbon Disulfide	9	U
75-35-4	1,1-Dichloroethene	9	U
75-34-3	1,1-Dichloroethane	9	U
540-59-0	1,2-Dichloroethene (total)	9	U
67-66-3	Chloroform	9	U
107-06-2	1,2-Dichloroethane	9	U
78-93-3	2-Butanone	18	U
71-55-6	1,1,1-Trichloroethane	9	U
56-23-5	Carbon Tetrachloride	9	U
108-05-4	Vinyl Acetate	18	U
75-27-4	Bromodichloromethane	9	U
78-87-5	1,2-Dichloropropane	9	U
10061-01-5	cis-1,3-Dichloropropene	9	U
79-01-6	Trichloroethene	9	U
124-48-1	Dibromochloromethane	9	U
79-00-5	1,1,2-Trichloroethane	9	U
71-43-2	Benzene	9	U
10061-02-6	trans-1,3-Dichloropropene	9	U
75-25-2	Bromoform	9	U
108-10-1	4-Methyl-2-Pentanone	18	U
591-78-6	2-Hexanone	18	U
127-18-4	Tetrachloroethene	9	U
79-34-5	1,1,2,2-Tetrachloroethane	9	U
108-88-3	Toluene	9	U
108-90-7	Chlorobenzene	9	U
100-41-4	Ethylbenzene	9	U
100-42-5	Styrene	9	U
1330-20-7	Xylene (total)	9	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BZMW-5

Lab Name:AQUATEC, INC. Contract:89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water)SOIL Lab Sample ID: 124981

Sample wt/vol: 30.4 (g/mL)G Lab File ID: B124981DS

Level: (low/med) LOW Date Received: 11/29/90

% Moisture: not dec.23 dec._____ Date Extracted: 12/03/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/06/90

GPC Cleanup: (Y/N)Y pH: 8.3 Dilution Factor: 4.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/KG	Q
108-95-2	Phenol	3400	U
111-44-4	bis(2-Chloroethyl)ether	3400	U
95-57-8	2-Chlorophenol	3400	U
541-73-1	1,3-Dichlorobenzene	3400	U
106-46-7	1,4-Dichlorobenzene	3400	U
100-51-6	Benzyl alcohol	3400	U
95-50-1	1,2-Dichlorobenzene	3400	U
95-48-7	2-Methylphenol	3400	U
108-60-1	bis(2-Chloroisopropyl)ether	3400	U
106-44-5	4-Methylphenol	3400	U
621-64-7	N-Nitroso-di-n-propylamine	3400	U
67-72-1	Hexachloroethane	3400	U
98-95-3	Nitrobenzene	3400	U
78-59-1	Isophorone	3400	U
88-75-5	2-Nitrophenol	3400	U
105-67-9	2,4-Dimethylphenol	3400	U
65-85-0	Benzoic acid	16000	U
111-91-1	bis(2-Chloroethoxy)methane	3400	U
120-83-2	2,4-Dichlorophenol	3400	U
120-82-1	1,2,4-Trichlorobenzene	3400	U
91-20-3	Naphthalene	3400	U
106-47-8	4-Chloroaniline	3400	U
87-68-3	Hexachlorobutadiene	3400	U
59-50-7	4-Chloro-3-methylphenol	3400	U
91-57-6	2-Methylnaphthalene	3400	U
77-47-4	Hexachlorocyclopentadiene	3400	U
88-06-2	2,4,6-Trichlorophenol	3400	U
95-95-4	2,4,5-Trichlorophenol	16000	U
91-58-7	2-Chloronaphthalene	3400	U
88-74-4	2-Nitroaniline	16000	U
131-11-3	Dimethylphthalate	3400	U
208-96-8	Acenaphthylene	3400	U
606-20-2	2,6-Dinitrotoluene	3400	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BZMW-5

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: 124981

Sample wt/vol: 30.4 (g/mL) G Lab File ID: B124981DS

Level: (low/med) LOW Date Received: 11/29/90

% Moisture: not dec. 23 dec. _____ Date Extracted: 12/03/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/06/90

GPC Cleanup: (Y/N) Y pH: 8.3 Dilution Factor: 4.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	16000	U
83-32-9	Acenaphthene	3400	U
51-28-5	2,4-Dinitrophenol	16000	U
100-02-7	4-Nitrophenol	16000	U
132-64-9	Dibenzofuran	3400	U
121-14-2	2,4-Dinitrotoluene	3400	U
84-66-2	Diethylphthalate	3400	U
7005-72-3	4-Chlorophenyl-phenylether	3400	U
86-73-7	Fluorene	3400	U
100-01-6	4-Nitroaniline	16000	U
534-52-1	4,6-Dinitro-2-methylphenol	16000	U
86-30-6	N-Nitrosodiphenylamine (1)	3400	U
101-55-3	4-Bromophenyl-phenylether	3400	U
118-74-1	Hexachlorobenzene	3400	U
87-86-5	Pentachlorophenol	16000	U
85-01-8	Phenanthrene	430	J
120-12-7	Anthracene	3400	U
84-74-2	Di-n-butylphthalate	3400	U
206-44-0	Fluoranthene	560	J
129-00-0	Pyrene	580	J
85-68-7	Butylbenzylphthalate	3400	U
91-94-1	3,3'-Dichlorobenzidine	6800	U
56-55-3	Benzo(a)anthracene	3400	U
218-01-9	Chrysene	850	J
117-81-7	bis(2-Ethylhexyl)phthalate	3400	U
117-84-0	Di-n-octylphthalate	3400	U
205-99-2	Benzo(b)fluoranthene	3400	U
207-08-9	Benzo(k)fluoranthene	3400	U
50-32-8	Benzo(a)pyrene	1100	J
193-39-5	Indeno(1,2,3-cd)pyrene	3400	U
53-70-3	Dibenz(a,h)anthracene	3400	U
191-24-2	Benzo(g,h,i)perylene	3300	J

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BZMW-5

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: 124981

Sample wt/vol: 30.4 (g/mL) G Lab File ID: B124981DS

Level: (low/med) LOW Date Received: 11/29/90

% Moisture: not dec. 23 dec. _____ Date Extracted: 12/03/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/06/90

GPC Cleanup: (Y/N) Y pH: 8.3 Dilution Factor: 4.0

Number TICs found: 20

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN PHTHALATE	32.20	7700	J
2.		UNKNOWN	33.65	5500	J
3.		UNKNOWN	34.02	5300	J
4.		UNKNOWN	34.38	14000	J
5.		UNKNOWN	34.80	30000	J
6.		UNKNOWN	35.85	10000	J
7.		UNKNOWN C4-ALKYLPHENANTHRENE	37.48	6700	J
8.	638-67-5	TRICOSANE	37.53	4500	J
9.	646-31-1	TETRACOSANE	38.70	5900	J
10.	115-86-6	PHOSPHORIC ACID, TRIPHENYL E	39.35	7400	J
11.	629-99-2	PENTACOSANE	39.82	8400	J
12.	630-01-3	HEXACOSANE	40.88	8400	J
13.	593-49-7	HEPTACOSANE	41.92	8700	J
14.	630-02-4	OCTACOSANE	42.95	8900	J
15.	630-03-5	NONACOSANE	44.12	15000	J
16.	638-68-6	TRIACONTANE	45.43	9300	J
17.	192-97-2	BENZO[E]PYRENE	45.43	4300	J
18.		UNKNOWN C31-ALKANE	46.97	6900	J
19.		UNKNOWN PNA-HYDROCARBON DERI	47.13	3000	J
20.		UNKNOWN	50.18	5400	J
21.					
22.					
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BZMW-4

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: 124983

Sample wt/vol: 30.6 (g/mL) G Lab File ID: B124983S

Level: (low/med) LOW Date Received: 11/29/90

% Moisture: not dec. 26 dec. _____ Date Extracted: 12/03/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/06/90

GPC Cleanup: (Y/N) Y pH: 10.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	1000	
111-44-4	bis(2-Chloroethyl)ether	870	U
95-57-8	2-Chlorophenol	870	U
541-73-1	1,3-Dichlorobenzene	870	U
106-46-7	1,4-Dichlorobenzene	870	U
100-51-6	Benzyl alcohol	870	U
95-50-1	1,2-Dichlorobenzene	870	U
95-48-7	2-Methylphenol	870	U
108-60-1	bis(2-Chloroisopropyl)ether	870	U
106-44-5	4-Methylphenol	650	J
621-64-7	N-Nitroso-di-n-propylamine	870	U
67-72-1	Hexachloroethane	870	U
98-95-3	Nitrobenzene	870	U
78-59-1	Isophorone	870	U
88-75-5	2-Nitrophenol	870	U
105-67-9	2,4-Dimethylphenol	570	J
65-85-0	Benzoic acid	4200	U
111-91-1	bis(2-Chloroethoxy)methane	870	U
120-83-2	2,4-Dichlorophenol	870	U
120-82-1	1,2,4-Trichlorobenzene	870	U
91-20-3	Naphthalene	94	J
106-47-8	4-Chloroaniline	870	U
87-68-3	Hexachlorobutadiene	870	U
59-50-7	4-Chloro-3-methylphenol	870	U
91-57-6	2-Methylnaphthalene	150	J
77-47-4	Hexachlorocyclopentadiene	870	U
88-06-2	2,4,6-Trichlorophenol	870	U
95-95-4	2,4,5-Trichlorophenol	4200	U
91-58-7	2-Chloronaphthalene	870	U
88-74-4	2-Nitroaniline	4200	U
131-11-3	Dimethylphthalate	870	U
208-96-8	Acenaphthylene	870	U
606-20-2	2,6-Dinitrotoluene	870	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BZMW-4

Lab Name:AQUATEC, INC. Contract:89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water)SOIL Lab Sample ID: 124983

Sample wt/vol: 30.6 (g/mL)G Lab File ID: B124983S

Level: (low/med) LOW Date Received: 11/29/90

% Moisture: not dec.26 dec._____ Date Extracted: 12/03/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/06/90

GPC Cleanup: (Y/N)Y pH:10.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/KG	Q
99-09-2	3-Nitroaniline	4200	U
83-32-9	Acenaphthene	870	U
51-28-5	2,4-Dinitrophenol	4200	U
100-02-7	4-Nitrophenol	4200	U
132-64-9	Dibenzofuran	870	U
121-14-2	2,4-Dinitrotoluene	870	U
84-66-2	Diethylphthalate	870	U
7005-72-3	4-Chlorophenyl-phenylether	870	U
86-73-7	Fluorene	870	U
100-01-6	4-Nitroaniline	4200	U
534-52-1	4,6-Dinitro-2-methylphenol	4200	U
86-30-6	N-Nitrosodiphenylamine (1)	870	U
101-55-3	4-Bromophenyl-phenylether	870	U
118-74-1	Hexachlorobenzene	870	U
87-86-5	Pentachlorophenol	4200	U
85-01-8	Phenanthrene	250	J
120-12-7	Anthracene	870	U
84-74-2	Di-n-butylphthalate	870	U
206-44-0	Fluoranthene	240	J
129-00-0	Pyrene	250	J
85-68-7	Butylbenzylphthalate	870	U
91-94-1	3,3'-Dichlorobenzidine	1700	U
56-55-3	Benzo(a)anthracene	870	U
218-01-9	Chrysene	870	U
117-81-7	bis(2-Ethylhexyl)phthalate	1200	
117-84-0	Di-n-octylphthalate	870	U
205-99-2	Benzo(b)fluoranthene	870	U
207-08-9	Benzo(k)fluoranthene	870	U
50-32-8	Benzo(a)pyrene	870	U
193-39-5	Indeno(1,2,3-cd)pyrene	870	U
53-70-3	Dibenz(a,h)anthracene	870	U
191-24-2	Benzo(g,h,i)perylene	870	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BZMW-4

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: 124983

Sample wt/vol: 30.6 (g/mL) G Lab File ID: B124983S

Level: (low/med) LOW Date Received: 11/29/90

% Moisture: not dec. 26 dec. _____ Date Extracted: 12/03/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/06/90

GPC Cleanup: (Y/N) Y pH: 10.0 Dilution Factor: 1.0

Number TICs found: 20

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	629-92-5	NONADECANE	32.38	1100	J
2.	112-95-8	EICOSANE	33.77	1200	J
3.		UNKNOWN METHYLENEBISPHENOL	34.27	2000	J
4.	629-94-7	HENEICOSANE	35.07	1300	J
5.		UNKNOWN METHYLENEBISPHENOL	35.10	2800	J
6.	629-97-0	DOCOSANE	36.33	2500	J
7.		UNKNOWN ALKANE	36.80	1400	J
8.	638-67-5	TRICOSANE	37.55	3100	J
9.	646-31-1	TETRACOSANE	38.72	3000	J
10.	629-99-2	PENTACOSANE	39.83	4000	J
11.		UNKNOWN ALKANE	40.20	860	J
12.	630-01-3	HEXACOSANE	40.90	2900	J
13.		UNKNOWN ALKANE	41.55	1400	J
14.	593-49-7	HEPTACOSANE	41.93	3200	J
15.		UNKNOWN ALKANE	42.35	810	J
16.	630-02-4	OCTACOSANE	42.95	2500	J
17.	630-03-5	NONACOSANE	44.12	3500	J
18.	638-68-6	TRIACONTANE	45.45	2500	J
19.		UNKNOWN C31-ALKANE	46.97	2200	J
20.		UNKNOWN C32-ALKANE	48.73	960	J
21.					
22.					
23.					
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BZTB-1

Lab Name:AQUATEC, INC. Contract:89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water)SOIL Lab Sample ID: 124989

Sample wt/vol: 30.1 (g/mL)G Lab File ID: B124989DS

Level: (low/med) LOW Date Received: 11/30/90

% Moisture: not dec.24 dec._____ Date Extracted: 12/03/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/06/90

GPC Cleanup: (Y/N)Y pH: 8.2 Dilution Factor: 4.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/KG	Q
108-95-2	Phenol	2000	J
111-44-4	bis(2-Chloroethyl)ether	3500	U
95-57-8	2-Chlorophenol	3500	U
541-73-1	1,3-Dichlorobenzene	3500	U
106-46-7	1,4-Dichlorobenzene	3500	U
100-51-6	Benzyl alcohol	3500	U
95-50-1	1,2-Dichlorobenzene	3500	U
95-48-7	2-Methylphenol	3500	U
108-60-1	bis(2-Chloroisopropyl)ether	3500	U
106-44-5	4-Methylphenol	3500	U
621-64-7	N-Nitroso-di-n-propylamine	3500	U
67-72-1	Hexachloroethane	3500	U
98-95-3	Nitrobenzene	3500	U
78-59-1	Isophorone	3500	U
88-75-5	2-Nitrophenol	3500	U
105-67-9	2,4-Dimethylphenol	3500	U
65-85-0	Benzoic acid	17000	U
111-91-1	bis(2-Chloroethoxy)methane	3500	U
120-83-2	2,4-Dichlorophenol	3500	U
120-82-1	1,2,4-Trichlorobenzene	3500	U
91-20-3	Naphthalene	3500	U
106-47-8	4-Chloroaniline	3500	U
87-68-3	Hexachlorobutadiene	3500	U
59-50-7	4-Chloro-3-methylphenol	3500	U
91-57-6	2-Methylnaphthalene	3500	U
77-47-4	Hexachlorocyclopentadiene	3500	U
88-06-2	2,4,6-Trichlorophenol	3500	U
95-95-4	2,4,5-Trichlorophenol	17000	U
91-58-7	2-Chloronaphthalene	3500	U
88-74-4	2-Nitroaniline	17000	U
131-11-3	Dimethylphthalate	3500	U
208-96-8	Acenaphthylene	3500	U
606-20-2	2,6-Dinitrotoluene	3500	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BZTB-1

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: 124989

Sample wt/vol: 30.1 (g/mL) G Lab File ID: B124989DS

Level: (low/med) LOW Date Received: 11/30/90

% Moisture: not dec. 24 dec. _____ Date Extracted: 12/03/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/06/90

GPC Cleanup: (Y/N) Y pH: 8.2 Dilution Factor: 4.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	17000	U
83-32-9	Acenaphthene	3500	U
51-28-5	2,4-Dinitrophenol	17000	U
100-02-7	4-Nitrophenol	17000	U
132-64-9	Dibenzofuran	3500	U
121-14-2	2,4-Dinitrotoluene	3500	U
84-66-2	Diethylphthalate	3500	U
7005-72-3	4-Chlorophenyl-phenylether	3500	U
86-73-7	Fluorene	3500	U
100-01-6	4-Nitroaniline	17000	U
534-52-1	4,6-Dinitro-2-methylphenol	17000	U
86-30-6	N-Nitrosodiphenylamine (1)	4000	
101-55-3	4-Bromophenyl-phenylether	3500	U
118-74-1	Hexachlorobenzene	3500	U
87-86-5	Pentachlorophenol	17000	U
85-01-8	Phenanthrene	3500	U
120-12-7	Anthracene	3500	U
84-74-2	Di-n-butylphthalate	3500	U
206-44-0	Fluoranthene	3500	U
129-00-0	Pyrene	3500	U
85-68-7	Butylbenzylphthalate	3500	U
91-94-1	3,3'-Dichlorobenzidine	6900	U
56-55-3	Benzo(a)anthracene	3500	U
218-01-9	Chrysene	3500	U
117-81-7	bis(2-Ethylhexyl)phthalate	4200	
117-84-0	Di-n-octylphthalate	3500	U
205-99-2	Benzo(b)fluoranthene	3500	U
207-08-9	Benzo(k)fluoranthene	3500	U
50-32-8	Benzo(a)pyrene	3500	U
193-39-5	Indeno(1,2,3-cd)pyrene	3500	U
53-70-3	Dibenz(a,h)anthracene	3500	U
191-24-2	Benzo(g,h,i)perylene	3500	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BZTB-1

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: 124989

Sample wt/vol: 30.1 (g/mL) G Lab File ID: B124989DS

Level: (low/med) LOW Date Received: 11/30/90

% Moisture: not dec. 24 dec. _____ Date Extracted: 12/03/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/06/90

GPC Cleanup: (Y/N) Y pH: 8.2 Dilution Factor: 4.0

Number TICs found: 20

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	29.30	5400	J
2.		UNKNOWN METHYLENEBISPHENOL	34.25	10000	J
3.		UNKNOWN	34.80	5600	J
4.		UNKNOWN METHYLENEBISPHENOL	35.10	11000	J
5.	629-97-0	DOCOSANE	36.33	3800	J
6.		UNKNOWN	37.28	5200	J
7.	638-67-5	TRICOSANE	37.55	4200	J
8.	646-31-1	TETRACOSANE	38.70	6200	J
9.	1235-74-1	1-PHENANTHRENECARBOXYLIC ACI	38.77	3800	J
10.	629-99-2	PENTACOSANE	39.82	8800	J
11.	630-01-3	HEXACOSANE	40.88	9700	J
12.	593-49-7	HEPTACOSANE	41.93	11000	J
13.	74-31-7	1,4-BENZENEDIAMINE, N,N'-DIP	42.55	70000	J
14.	630-02-4	OCTACOSANE	42.95	7500	J
15.		UNKNOWN	43.00	100000	J
16.		UNKNOWN	43.43	140000	J
17.	630-03-5	NONACOSANE	44.12	13000	J
18.	638-68-6	TRIACONTANE	45.43	13000	J
19.		UNKNOWN C31-ALKANE	46.95	8700	J
20.		UNKNOWN C32-ALKANE	48.73	5700	J
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BZTB-2

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: 124991

Sample wt/vol: 30.4 (g/mL) G Lab File ID: B124991S

Level: (low/med) LOW Date Received: 11/30/90

% Moisture: not dec. 19 dec. _____ Date Extracted: 12/03/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/06/90

GPC Cleanup: (Y/N) Y pH: 8.3 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	1500	
111-44-4	bis(2-Chloroethyl)ether	800	U
95-57-8	2-Chlorophenol	800	U
541-73-1	1,3-Dichlorobenzene	800	U
106-46-7	1,4-Dichlorobenzene	800	U
100-51-6	Benzyl alcohol	800	U
95-50-1	1,2-Dichlorobenzene	800	U
95-48-7	2-Methylphenol	800	U
108-60-1	bis(2-Chloroisopropyl)ether	800	U
106-44-5	4-Methylphenol	800	U
621-64-7	N-Nitroso-di-n-propylamine	800	U
67-72-1	Hexachloroethane	800	U
98-95-3	Nitrobenzene	800	U
78-59-1	Isophorone	800	U
88-75-5	2-Nitrophenol	800	U
105-67-9	2,4-Dimethylphenol	800	U
65-85-0	Benzoic acid	3900	U
111-91-1	bis(2-Chloroethoxy)methane	800	U
120-83-2	2,4-Dichlorophenol	800	U
120-82-1	1,2,4-Trichlorobenzene	800	U
91-20-3	Naphthalene	800	U
106-47-8	4-Chloroaniline	800	U
87-68-3	Hexachlorobutadiene	800	U
59-50-7	4-Chloro-3-methylphenol	800	U
91-57-6	2-Methylnaphthalene	800	U
77-47-4	Hexachlorocyclopentadiene	800	U
88-06-2	2,4,6-Trichlorophenol	800	U
95-95-4	2,4,5-Trichlorophenol	3900	U
91-58-7	2-Chloronaphthalene	800	U
88-74-4	2-Nitroaniline	3900	U
131-11-3	Dimethylphthalate	800	U
208-96-8	Acenaphthylene	800	U
606-20-2	2,6-Dinitrotoluene	800	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BZTB-2

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: 124991

Sample wt/vol: 30.4 (g/mL) G Lab File ID: B124991S

Level: (low/med) LOW Date Received: 11/30/90

% Moisture: not dec. 19 dec. _____ Date Extracted: 12/03/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/06/90

GPC Cleanup: (Y/N) Y pH: 8.3 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	3900	U
83-32-9	Acenaphthene	800	U
51-28-5	2,4-Dinitrophenol	3900	U
100-02-7	4-Nitrophenol	3900	U
132-64-9	Dibenzofuran	800	U
121-14-2	2,4-Dinitrotoluene	800	U
84-66-2	Diethylphthalate	800	U
7005-72-3	4-Chlorophenyl-phenylether	800	U
86-73-7	Fluorene	800	U
100-01-6	4-Nitroaniline	3900	U
534-52-1	4,6-Dinitro-2-methylphenol	3900	U
86-30-6	N-Nitrosodiphenylamine (1)	190	J
101-55-3	4-Bromophenyl-phenylether	800	U
118-74-1	Hexachlorobenzene	800	U
87-86-5	Pentachlorophenol	3900	U
85-01-8	Phenanthrene	270	J
120-12-7	Anthracene	800	U
84-74-2	Di-n-butylphthalate	800	U
206-44-0	Fluoranthene	320	J
129-00-0	Pyrene	290	J
85-68-7	Butylbenzylphthalate	800	U
91-94-1	3,3'-Dichlorobenzidine	1600	U
56-55-3	Benzo(a)anthracene	800	U
218-01-9	Chrysene	170	J
117-81-7	bis(2-Ethylhexyl)phthalate	1900	
117-84-0	Di-n-octylphthalate	800	U
205-99-2	Benzo(b)fluoranthene	800	U
207-08-9	Benzo(k)fluoranthene	800	U
50-32-8	Benzo(a)pyrene	800	U
193-39-5	Indeno(1,2,3-cd)pyrene	800	U
53-70-3	Dibenz(a,h)anthracene	800	U
191-24-2	Benzo(g,h,i)perylene	800	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BZTB-2

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: 124991

Sample wt/vol: 30.4 (g/mL) G Lab File ID: B124991S

Level: (low/med) LOW Date Received: 11/30/90

% Moisture: not dec. 19 dec. _____ Date Extracted: 12/03/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/06/90

GPC Cleanup: (Y/N) Y pH: 8.3 Dilution Factor: 1.0

Number TICs found: 20

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	101-84-8	BENZENE,1,1'-OXYBIS-	24.78	1000	J
2.	128-37-0	PHENOL, 2,6-BIS(1,1-DIMETHYL	26.63	6500	J
3.		UNKNOWN METHYLENEBISPHENOL	34.27	870	J
4.		UNKNOWN	34.80	1000	J
5.		UNKNOWN METHYLENEBISPHENOL	35.10	1200	J
6.	629-97-0	DOCOSANE	36.33	1700	J
7.	638-67-5	TRICOSANE	37.53	1700	J
8.	646-31-1	TETRACOSANE	38.70	1700	J
9.	629-99-2	PENTACOSANE	39.82	2700	J
10.	630-01-3	HEXACOSANE	40.88	2600	J
11.		UNKNOWN BENZENE DERIVATIVE	41.00	1200	J
12.	593-49-7	HEPTACOSANE	41.93	2900	J
13.	74-31-7	1,4-BENZENEDIAMINE, N,N'DIPH	42.52	7000	J
14.		UNKNOWN	42.95	14000	J
15.	630-02-4	OCTACOSANE	42.97	1200	J
16.		UNKNOWN	43.40	17000	J
17.	630-03-5	NONACOSANE	44.12	4700	J
18.	638-68-6	TRIACONTANE	45.43	3300	J
19.		UNKNOWN C31-ALKANE	46.97	2500	J
20.		UNKNOWN C32-ALKANE	48.75	1500	J
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22.					
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BZTB-3

Lab Name:AQUATEC, INC. Contract:89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water)SOIL Lab Sample ID: 124993

Sample wt/vol: 230.1 (g/mL)G Lab File ID: B124993S

Level: (low/med) LOW Date Received: 11/30/90

% Moisture: not dec.15 dec._____ Date Extracted: 12/03/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/06/90

GPC Cleanup: (Y/N)Y pH: 8.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/KG	Q
108-95-2	Phenol	920	
111-44-4	bis(2-Chloroethyl)ether	770	U
95-57-8	2-Chlorophenol	770	U
541-73-1	1,3-Dichlorobenzene	770	U
106-46-7	1,4-Dichlorobenzene	770	U
100-51-6	Benzyl alcohol	770	U
95-50-1	1,2-Dichlorobenzene	410	J
95-48-7	2-Methylphenol	770	U
108-60-1	bis(2-Chloroisopropyl)ether	770	U
106-44-5	4-Methylphenol	240	J
621-64-7	N-Nitroso-di-n-propylamine	770	U
67-72-1	Hexachloroethane	770	U
98-95-3	Nitrobenzene	770	U
78-59-1	Isophorone	770	U
88-75-5	2-Nitrophenol	770	U
105-67-9	2,4-Dimethylphenol	770	U
65-85-0	Benzoic acid	3800	U
111-91-1	bis(2-Chloroethoxy)methane	770	U
120-83-2	2,4-Dichlorophenol	770	U
120-82-1	1,2,4-Trichlorobenzene	200	J
91-20-3	Naphthalene	150	J
106-47-8	4-Chloroaniline	770	U
87-68-3	Hexachlorobutadiene	770	U
59-50-7	4-Chloro-3-methylphenol	770	U
91-57-6	2-Methylnaphthalene	200	J
77-47-4	Hexachlorocyclopentadiene	770	U
88-06-2	2,4,6-Trichlorophenol	770	U
95-95-4	2,4,5-Trichlorophenol	3800	U
91-58-7	2-Chloronaphthalene	770	U
88-74-4	2-Nitroaniline	3800	U
131-11-3	Dimethylphthalate	770	U
208-96-8	Acenaphthylene	770	U
606-20-2	2,6-Dinitrotoluene	770	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BZTB-3

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: 124993

Sample wt/vol: 30.1 (g/mL) G Lab File ID: B124993S

Level: (low/med) LOW Date Received: 11/30/90

% Moisture: not dec. 15 dec. _____ Date Extracted: 12/03/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/06/90

GPC Cleanup: (Y/N) Y pH: 8.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	3800	U
83-32-9	Acenaphthene	100	J
51-28-5	2,4-Dinitrophenol	3800	U
100-02-7	4-Nitrophenol	3800	U
132-64-9	Dibenzofuran	770	U
121-14-2	2,4-Dinitrotoluene	770	U
84-66-2	Diethylphthalate	770	U
7005-72-3	4-Chlorophenyl-phenylether	770	U
86-73-7	Fluorene	99	J
100-01-6	4-Nitroaniline	3800	U
534-52-1	4,6-Dinitro-2-methylphenol	3800	U
86-30-6	N-Nitrosodiphenylamine (1)	770	U
101-55-3	4-Bromophenyl-phenylether	770	U
118-74-1	Hexachlorobenzene	770	U
87-86-5	Pentachlorophenol	3800	U
85-01-8	Phenanthrene	680	J
120-12-7	Anthracene	140	J
84-74-2	Di-n-butylphthalate	370	J
206-44-0	Fluoranthene	820	
129-00-0	Pyrene	750	J
85-68-7	Butylbenzylphthalate	770	U
91-94-1	3,3'-Dichlorobenzidine	1500	U
56-55-3	Benzo(a)anthracene	380	J
218-01-9	Chrysene	1000	
117-81-7	bis(2-Ethylhexyl)phthalate	5400	
117-84-0	Di-n-octylphthalate	770	U
205-99-2	Benzo(b)fluoranthene	400	J
207-08-9	Benzo(k)fluoranthene	300	J
50-32-8	Benzo(a)pyrene	340	J
193-39-5	Indeno(1,2,3-cd)pyrene	770	U
53-70-3	Dibenz(a,h)anthracene	770	U
191-24-2	Benzo(g,h,i)perylene	770	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BZTB-3

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: 124993

Sample wt/vol: 30.1 (g/mL) G Lab File ID: B124993S

Level: (low/med) LOW Date Received: 11/30/90

% Moisture: not dec. 15 dec. _____ Date Extracted: 12/03/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/06/90

GPC Cleanup: (Y/N) Y pH: 8.0 Dilution Factor: 1.0

Number TICs found: 20

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN TERPENE	13.53	5700	J
2.		UNKNOWN TERPENE	14.92	1700	J
3.		UNKNOWN C4-ALKYLBENZENE	16.25	8800	J
4.	101-84-8	BENZENE, 1,1'-OXYBIS-	24.78	2500	J
5.	128-37-0	PHENOL, 2,6-BIS(1,1-DIMETHYL	26.65	11000	J
6.		UNKNOWN	34.82	5700	J
7.	629-97-0	DOCOSANE	36.33	2200	J
8.	638-67-5	TRICOSANE	37.55	3400	J
9.		UNKNOWN	38.15	2500	J
10.	646-31-1	TETRACOSANE	38.72	3600	J
11.	629-99-2	PENTACOSANE	39.83	5000	J
12.	630-01-3	HEXACOSANE	40.90	4500	J
13.	593-49-7	HEPTACOSANE	41.93	4800	J
14.	630-02-4	OCTACOSANE	42.97	4200	J
15.		UNKNOWN	43.38	3300	J
16.	630-03-5	NONACOSANE	44.12	7300	J
17.	638-68-5	TRIACONTANE	45.43	3900	J
18.		UNKNOWN C31-ALKANE	46.97	3900	J
19.		UNKNOWN C32-ALKANE	48.75	2200	J
20.		UNKNOWN POLYCYCLIC HYDROCARB	50.18	1500	J
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BZTB-4

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: 125053

Sample wt/vol: 30.0 (g/mL) G Lab File ID: B125053DS

Level: (low/med) LOW Date Received: 12/01/90

% Moisture: not dec. 21 dec. _____ Date Extracted: 12/04/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/06/90

GPC Cleanup: (Y/N) Y pH: 8.0 Dilution Factor: 4.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	850	J
111-44-4	bis(2-Chloroethyl)ether	3300	U
95-57-8	2-Chlorophenol	3300	U
541-73-1	1,3-Dichlorobenzene	3300	U
106-46-7	1,4-Dichlorobenzene	3300	U
100-51-6	Benzyl alcohol	3300	U
95-50-1	1,2-Dichlorobenzene	3300	U
95-48-7	2-Methylphenol	3300	U
108-60-1	bis(2-Chloroisopropyl)ether	3300	U
106-44-5	4-Methylphenol	3300	U
621-64-7	N-Nitroso-di-n-propylamine	3300	U
67-72-1	Hexachloroethane	3300	U
98-95-3	Nitrobenzene	3300	U
78-59-1	Isophorone	3300	U
88-75-5	2-Nitrophenol	3300	U
105-67-9	2,4-Dimethylphenol	3300	U
65-85-0	Benzoic acid	16000	U
111-91-1	bis(2-Chloroethoxy)methane	3300	U
120-83-2	2,4-Dichlorophenol	3300	U
120-82-1	1,2,4-Trichlorobenzene	3300	U
91-20-3	Naphthalene	3300	U
106-47-8	4-Chloroaniline	3300	U
87-68-3	Hexachlorobutadiene	3300	U
59-50-7	4-Chloro-3-methylphenol	3300	U
91-57-6	2-Methylnaphthalene	3300	U
77-47-4	Hexachlorocyclopentadiene	3300	U
88-06-2	2,4,6-Trichlorophenol	3300	U
95-95-4	2,4,5-Trichlorophenol	16000	U
91-58-7	2-Chloronaphthalene	3300	U
88-74-4	2-Nitroaniline	16000	U
131-11-3	Dimethylphthalate	3300	U
208-96-8	Acenaphthylene	3300	U
606-20-2	2,6-Dinitrotoluene	3300	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BZTB-4

Lab Name:AQUATEC, INC. Contract:89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water)SOIL Lab Sample ID: 125053

Sample wt/vol: 30.0 (g/mL)G Lab File ID: B125053DS

Level: (low/med) LOW Date Received: 12/01/90

% Moisture: not dec.21 dec._____ Date Extracted: 12/04/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/06/90

GPC Cleanup: (Y/N)Y pH: 8.0 Dilution Factor: 4.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/KG	Q
99-09-2	3-Nitroaniline	16000	U
83-32-9	Acenaphthene	3300	U
51-28-5	2,4-Dinitrophenol	16000	U
100-02-7	4-Nitrophenol	16000	U
132-64-9	Dibenzofuran	3300	U
121-14-2	2,4-Dinitrotoluene	3300	U
84-66-2	Diethylphthalate	3300	U
7005-72-3	4-Chlorophenyl-phenylether	3300	U
86-73-7	Fluorene	3300	U
100-01-6	4-Nitroaniline	16000	U
534-52-1	4,6-Dinitro-2-methylphenol	16000	U
86-30-6	N-Nitrosodiphenylamine (1)	3300	U
101-55-3	4-Bromophenyl-phenylether	3300	U
118-74-1	Hexachlorobenzene	3300	U
87-86-5	Pentachlorophenol	16000	U
85-01-8	Phenanthrene	550	J
120-12-7	Anthracene	3300	U
84-74-2	Di-n-butylphthalate	3300	U
206-44-0	Fluoranthene	690	J
129-00-0	Pyrene	590	J
85-68-7	Butylbenzylphthalate	1700	J
91-94-1	3,3'-Dichlorobenzidine	6700	U
56-55-3	Benzo(a)anthracene	350	J
218-01-9	Chrysene	350	J
117-81-7	bis(2-Ethylhexyl)phthalate	3300	U
117-84-0	Di-n-octylphthalate	3300	U
205-99-2	Benzo(b)fluoranthene	3300	U
207-08-9	Benzo(k)fluoranthene	3300	U
50-32-8	Benzo(a)pyrene	3300	U
193-39-5	Indeno(1,2,3-cd)pyrene	3300	U
53-70-3	Dibenz(a,h)anthracene	3300	U
191-24-2	Benzo(g,h,i)perylene	3300	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BZTB-4

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: 125053

Sample wt/vol: 30.0 (g/mL) G Lab File ID: B125053DS

Level: (low/med) LOW Date Received: 12/01/90

% Moisture: not dec. 21 dec. _____ Date Extracted: 12/04/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/06/90

GPC Cleanup: (Y/N) Y pH: 8.0 Dilution Factor: 4.0

Number TICs found: 20

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	128-37-0	PHENOL, 2,6-BIS(1,1-DIMETHYL	26.65	13000	J
2.		UNKNOWN	34.03	5300	J
3.		UNKNOWN METHYLENEBISPHENOL	34.27	2800	J
4.		UNKNOWN	34.42	10000	J
5.		UNKNOWN	34.82	31000	J
6.		UNKNOWN METHYLENEBISPHENOL	35.12	1700	J
7.		UNKNOWN	35.87	4800	J
8.		UNKNOWN C4-ALKYLPHENANTHRENE	37.50	5200	J
9.	638-67-5	TRICOSANE	37.55	2400	J
10.	646-31-1	TETRACOSANE	38.72	3000	J
11.	629-99-2	PENTACOSANE	39.83	7500	J
12.		UNKNOWN	40.23	4800	J
13.	630-01-3	HEXACOSANE	40.90	6200	J
14.		UNKNOWN	41.55	2800	J
15.	593-49-7	HEPTACOSANE	41.93	6400	J
16.	630-02-4	OCTACOSANE	42.97	5500	J
17.	630-03-5	NONACOSANE	44.12	7800	J
18.	638-68-6	TRIACONTANE	45.43	3200	J
19.		UNKNOWN C31-ALKANE	46.97	3200	J
20.		UNKNOWN C32-ALKANE	48.75	2500	J
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SDBZ-1B

Lab Name:AQUATEC, INC. Contract:89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water)SOIL Lab Sample ID: 125328

Sample wt/vol: 30.0 (g/mL)G Lab File ID: B125328S

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec.16 dec._____ Date Extracted: 12/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/26/90

GPC Cleanup: (Y/N)Y pH: 8.2 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/KG	Q
108-95-2	Phenol	99	J
111-44-4	bis(2-Chloroethyl)ether	790	U
95-57-8	2-Chlorophenol	790	U
541-73-1	1,3-Dichlorobenzene	790	U
106-46-7	1,4-Dichlorobenzene	790	U
100-51-6	Benzyl alcohol	790	U
95-50-1	1,2-Dichlorobenzene	790	U
95-48-7	2-Methylphenol	790	U
108-60-1	bis(2-Chloroisopropyl)ether	790	U
106-44-5	4-Methylphenol	790	U
621-64-7	N-Nitroso-di-n-propylamine	790	U
67-72-1	Hexachloroethane	790	U
98-95-3	Nitrobenzene	790	U
78-59-1	Isophorone	790	U
88-75-5	2-Nitrophenol	790	U
105-67-9	2,4-Dimethylphenol	790	U
65-85-0	Benzoic acid	3800	U
111-91-1	bis(2-Chloroethoxy)methane	790	U
120-83-2	2,4-Dichlorophenol	790	U
120-82-1	1,2,4-Trichlorobenzene	790	U
91-20-3	Naphthalene	790	U
106-47-8	4-Chloroaniline	790	U
87-68-3	Hexachlorobutadiene	790	U
59-50-7	4-Chloro-3-methylphenol	790	U
91-57-6	2-Methylnaphthalene	790	U
77-47-4	Hexachlorocyclopentadiene	790	U
88-06-2	2,4,6-Trichlorophenol	790	U
95-95-4	2,4,5-Trichlorophenol	3800	U
91-58-7	2-Chloronaphthalene	790	U
88-74-4	2-Nitroaniline	3800	U
131-11-3	Dimethylphthalate	790	U
208-96-8	Acenaphthylene	790	U
606-20-2	2,6-Dinitrotoluene	790	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SDBZ-1B

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: 125328

Sample wt/vol: 30.0 (g/mL) G Lab File ID: B125328S

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec. 16 dec. _____ Date Extracted: 12/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/26/90

GPC Cleanup: (Y/N) Y pH: 8.2 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	3800	U
83-32-9	Acenaphthene	790	U
51-28-5	2,4-Dinitrophenol	3800	U
100-02-7	4-Nitrophenol	3800	U
132-64-9	Dibenzofuran	790	U
121-14-2	2,4-Dinitrotoluene	790	U
84-66-2	Diethylphthalate	790	U
7005-72-3	4-Chlorophenyl-phenylether	790	U
86-73-7	Fluorene	790	U
100-01-6	4-Nitroaniline	3800	U
534-52-1	4,6-Dinitro-2-methylphenol	3800	U
86-30-6	N-Nitrosodiphenylamine (1)	790	U
101-55-3	4-Bromophenyl-phenylether	790	U
118-74-1	Hexachlorobenzene	790	U
87-86-5	Pentachlorophenol	3800	U
85-01-8	Phenanthrene	790	
120-12-7	Anthracene	790	U
84-74-2	Di-n-butylphthalate	790	U
206-44-0	Fluoranthene	1200	
129-00-0	Pyrene	1000	
85-68-7	Butylbenzylphthalate	790	U
91-94-1	3,3'-Dichlorobenzidine	1600	U
56-55-3	Benzo(a)anthracene	320	J
218-01-9	Chrysene	670	J
117-81-7	bis(2-Ethylhexyl)phthalate	790	U
117-84-0	Di-n-octylphthalate	790	U
205-99-2	Benzo(b)fluoranthene	540	J
207-08-9	Benzo(k)fluoranthene	540	J
50-32-8	Benzo(a)pyrene	490	J
193-39-5	Indeno(1,2,3-cd)pyrene	310	J
53-70-3	Dibenz(a,h)anthracene	790	U
191-24-2	Benzo(g,h,i)perylene	340	J

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SDBZ-1B

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: 125328

Sample wt/vol: 30.0 (g/mL) G Lab File ID: B125328S

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec. 16 dec. _____ Date Extracted: 12/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/26/90

GPC Cleanup: (Y/N) Y pH: 8.2 Dilution Factor: 1.0

Number TICs found: 9

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN ALKENE	6.72	390	JB
2.		UNKNOWN	8.28	710	JB
3.	123-42-2	2-PENTANONE, 4-HYDROXY-4-MET	9.60	6600	JBA
4.	108-94-1	CYCLOHEXANONE	11.63	330	J
5.		UNKNOWN	12.38	640	JB
6.		UNKNOWN	14.13	600	J
7.		UNKNOWN	15.30	640	JB
8.		UNKNOWN PNA-DIKETONE	33.85	400	J
9.	192-97-2	BENZO[E]PYRENE	44.75	740	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SDBZ-2B

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: 125329

Sample wt/vol: 30.6 (g/mL) G Lab File ID: B125329S

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec. 20 dec. _____ Date Extracted: 12/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/26/90

GPC Cleanup: (Y/N) Y pH: 8.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	1900	
111-44-4	bis(2-Chloroethyl)ether	810	U
95-57-8	2-Chlorophenol	810	U
541-73-1	1,3-Dichlorobenzene	810	U
106-46-7	1,4-Dichlorobenzene	810	U
100-51-6	Benzyl alcohol	810	U
95-50-1	1,2-Dichlorobenzene	810	U
95-48-7	2-Methylphenol	85	J
108-60-1	bis(2-Chloroisopropyl)ether	810	U
106-44-5	4-Methylphenol	92	J
621-64-7	N-Nitroso-di-n-propylamine	810	U
67-72-1	Hexachloroethane	810	U
98-95-3	Nitrobenzene	810	U
78-59-1	Isophorone	810	U
88-75-5	2-Nitrophenol	810	U
105-67-9	2,4-Dimethylphenol	83	J
65-85-0	Benzoic acid	3900	U
111-91-1	bis(2-Chloroethoxy)methane	810	U
120-83-2	2,4-Dichlorophenol	810	U
120-82-1	1,2,4-Trichlorobenzene	810	U
91-20-3	Naphthalene	810	U
106-47-8	4-Chloroaniline	810	U
87-68-3	Hexachlorobutadiene	810	U
59-50-7	4-Chloro-3-methylphenol	810	U
91-57-6	2-Methylnaphthalene	810	U
77-47-4	Hexachlorocyclopentadiene	810	U
88-06-2	2,4,6-Trichlorophenol	810	U
95-95-4	2,4,5-Trichlorophenol	3900	U
91-58-7	2-Chloronaphthalene	810	U
88-74-4	2-Nitroaniline	3900	U
131-11-3	Dimethylphthalate	810	U
208-96-8	Acenaphthylene	810	U
606-20-2	2,6-Dinitrotoluene	810	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SDBZ-2B

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: 125329

Sample wt/vol: 30.6 (g/mL) G Lab File ID: B125329S

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec. 20 dec. _____ Date Extracted: 12/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/26/90

GPC Cleanup: (Y/N) Y pH: 8.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	3900	U
83-32-9	Acenaphthene	120	J
51-28-5	2,4-Dinitrophenol	3900	U
100-02-7	4-Nitrophenol	3900	U
132-64-9	Dibenzofuran	810	U
121-14-2	2,4-Dinitrotoluene	810	U
84-66-2	Diethylphthalate	810	U
7005-72-3	4-Chlorophenyl-phenylether	810	U
86-73-7	Fluorene	130	J
100-01-6	4-Nitroaniline	3900	U
534-52-1	4,6-Dinitro-2-methylphenol	3900	U
86-30-6	N-Nitrosodiphenylamine (1)	810	U
101-55-3	4-Bromophenyl-phenylether	810	U
118-74-1	Hexachlorobenzene	810	U
87-86-5	Pentachlorophenol	3900	U
85-01-8	Phenanthrene	1500	
120-12-7	Anthracene	280	J
84-74-2	Di-n-butylphthalate	290	J
206-44-0	Fluoranthene	2400	
129-00-0	Pyrene	1900	
85-68-7	Butylbenzylphthalate	810	U
91-94-1	3,3'-Dichlorobenzidine	1600	U
56-55-3	Benzo(a)anthracene	640	J
218-01-9	Chrysene	750	J
117-81-7	bis(2-Ethylhexyl)phthalate	810	U
117-84-0	Di-n-octylphthalate	810	U
205-99-2	Benzo(b)fluoranthene	510	J
207-08-9	Benzo(k)fluoranthene	510	J
50-32-8	Benzo(a)pyrene	520	J
193-39-5	Indeno(1,2,3-cd)pyrene	290	J
53-70-3	Dibenz(a,h)anthracene	810	U
191-24-2	Benzo(g,h,i)perylene	320	J

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SDBZ-2B

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: 125329

Sample wt/vol: 30.6 (g/mL) G Lab File ID: B125329S

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec. 20 dec. _____ Date Extracted: 12/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/26/90

GPC Cleanup: (Y/N) Y pH: 8.0 Dilution Factor: 1.0

Number TICs found: 17

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN ALKENE	6.68	380	JB
2.		UNKNOWN	8.27	690	JB
3.	123-42-2	2-PENTANONE, 4-HYDROXY-4-MET	9.58	6100	JBA
4.		UNKNOWN	12.38	600	JB
5.		UNKNOWN	14.22	700	J
6.		UNKNOWN	15.32	600	JB
7.		UNKNOWN C8-ALKYLPHENOL	27.83	750	J
8.	2531-84-2	PHENANTHRENE, 2-METHYL-	32.85	380	J
9.		C15-PNA HYDROCARBONS	33.17	420	J
10.		UNKNOWN METHYLENEBISPHENOL	33.83	610	J
11.		UNKNOWN PNA-DIKETONE	33.88	530	J
12.		UNKNOWN METHYLENEBISPHENOL	34.70	1200	J
13.	238-84-6	11H-BENZO[A]FLUORENE	37.13	590	J
14.	192-97-2	BENZO[E]PYRENE	44.78	840	J
15.		UNKNOWN C20H12-PNA-HYDROCARB	45.33	330	J
16.		UNKNOWN POLYCYCLIC HYDROCARB	47.68	720	J
17.		UNKNOWN POLYCYCLIC HYDROCARB	49.25	730	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SSBZ-10

Lab Name:AQUATEC, INC. Contract:89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water)SOIL Lab Sample ID: 125330

Sample wt/vol: 30.4 (g/mL)G Lab File ID: B125330S

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec.21 dec._____ Date Extracted: 12/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/26/90

GPC Cleanup: (Y/N)Y pH: 8.4 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/KG	Q
108-95-2	Phenol	820	U
111-44-4	bis(2-Chloroethyl)ether	820	U
95-57-8	2-Chlorophenol	820	U
541-73-1	1,3-Dichlorobenzene	820	U
106-46-7	1,4-Dichlorobenzene	820	U
100-51-6	Benzyl alcohol	820	U
95-50-1	1,2-Dichlorobenzene	820	U
95-48-7	2-Methylphenol	820	U
108-60-1	bis(2-Chloroisopropyl)ether	820	U
106-44-5	4-Methylphenol	820	U
621-64-7	N-Nitroso-di-n-propylamine	820	U
67-72-1	Hexachloroethane	820	U
98-95-3	Nitrobenzene	820	U
78-59-1	Isophorone	820	U
88-75-5	2-Nitrophenol	820	U
105-67-9	2,4-Dimethylphenol	820	U
65-85-0	Benzoic acid	4000	U
111-91-1	bis(2-Chloroethoxy)methane	820	U
120-83-2	2,4-Dichlorophenol	820	U
120-82-1	1,2,4-Trichlorobenzene	820	U
91-20-3	Naphthalene	820	U
106-47-8	4-Chloroaniline	820	U
87-68-3	Hexachlorobutadiene	820	U
59-50-7	4-Chloro-3-methylphenol	820	U
91-57-6	2-Methylnaphthalene	820	U
77-47-4	Hexachlorocyclopentadiene	820	U
88-06-2	2,4,6-Trichlorophenol	820	U
95-95-4	2,4,5-Trichlorophenol	4000	U
91-58-7	2-Chloronaphthalene	820	U
88-74-4	2-Nitroaniline	4000	U
131-11-3	Dimethylphthalate	820	U
208-96-8	Acenaphthylene	820	U
606-20-2	2,6-Dinitrotoluene	820	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SSBZ-10

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: 125330

Sample wt/vol: 30.4 (g/mL) G Lab File ID: B125330S

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec. 21 dec. _____ Date Extracted: 12/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/26/90

GPC Cleanup: (Y/N) Y pH: 8.4 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	4000	U
83-32-9	Acenaphthene	820	U
51-28-5	2,4-Dinitrophenol	4000	U
100-02-7	4-Nitrophenol	4000	U
132-64-9	Dibenzofuran	820	U
121-14-2	2,4-Dinitrotoluene	820	U
84-66-2	Diethylphthalate	820	U
7005-72-3	4-Chlorophenyl-phenylether	820	U
86-73-7	Fluorene	820	U
100-01-6	4-Nitroaniline	4000	U
534-52-1	4,6-Dinitro-2-methylphenol	4000	U
86-30-6	N-Nitrosodiphenylamine (1)	820	U
101-55-3	4-Bromophenyl-phenylether	820	U
118-74-1	Hexachlorobenzene	820	U
87-86-5	Pentachlorophenol	4000	U
85-01-8	Phenanthrene	820	U
120-12-7	Anthracene	820	U
84-74-2	Di-n-butylphthalate	200	J
206-44-0	Fluoranthene	820	U
129-00-0	Pyrene	820	U
85-68-7	Butylbenzylphthalate	820	U
91-94-1	3,3'-Dichlorobenzidine	1600	U
56-55-3	Benzo(a)anthracene	820	U
218-01-9	Chrysene	820	U
117-81-7	bis(2-Ethylhexyl)phthalate	820	U
117-84-0	Di-n-octylphthalate	820	U
205-99-2	Benzo(b)fluoranthene	820	U
207-08-9	Benzo(k)fluoranthene	820	U
50-32-8	Benzo(a)pyrene	820	U
193-39-5	Indeno(1,2,3-cd)pyrene	820	U
53-70-3	Dibenz(a,h)anthracene	820	U
191-24-2	Benzo(g,h,i)perylene	820	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SSBZ-10

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: 125330

Sample wt/vol: 30.4 (g/mL) G Lab File ID: B125330S

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec. 21 dec. _____ Date Extracted: 12/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/26/90

GPC Cleanup: (Y/N) Y pH: 8.4 Dilution Factor: 1.0

Number TICs found: 5

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	8.27	720	JB
2.	123-42-2	2-PENTANONE, 4-HYDROXY-4-MET	9.60	4900	JBA
3.		UNKNOWN	12.38	640	JB
4.		UNKNOWN	14.18	530	J
5.		UNKNOWN	15.28	520	JB
6.					
7.					
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKV5

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: BB1203V5S

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BB1203V5S

Level: (low/med) LOW Date Received: 00/00/00

% Moisture: not dec. 0 dec._____ Date Extracted: 12/03/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/06/90

GPC Cleanup: (Y/N) Y pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	660	U
111-44-4	bis(2-Chloroethyl)ether	660	U
95-57-8	2-Chlorophenol	660	U
541-73-1	1,3-Dichlorobenzene	660	U
106-46-7	1,4-Dichlorobenzene	660	U
100-51-6	Benzyl alcohol	660	U
95-50-1	1,2-Dichlorobenzene	660	U
95-48-7	2-Methylphenol	660	U
108-60-1	bis(2-Chloroisopropyl)ether	660	U
106-44-5	4-Methylphenol	660	U
621-64-7	N-Nitroso-di-n-propylamine	660	U
67-72-1	Hexachloroethane	660	U
98-95-3	Nitrobenzene	660	U
78-59-1	Isophorone	660	U
88-75-5	2-Nitrophenol	660	U
105-67-9	2,4-Dimethylphenol	660	U
65-85-0	Benzoic acid	3200	U
111-91-1	bis(2-Chloroethoxy)methane	660	U
120-83-2	2,4-Dichlorophenol	660	U
120-82-1	1,2,4-Trichlorobenzene	660	U
91-20-3	Naphthalene	660	U
106-47-8	4-Chloroaniline	660	U
87-68-3	Hexachlorobutadiene	660	U
59-50-7	4-Chloro-3-methylphenol	660	U
91-57-6	2-Methylnaphthalene	660	U
77-47-4	Hexachlorocyclopentadiene	660	U
88-06-2	2,4,6-Trichlorophenol	660	U
95-95-4	2,4,5-Trichlorophenol	3200	U
91-58-7	2-Chloronaphthalene	660	U
88-74-4	2-Nitroaniline	3200	U
131-11-3	Dimethylphthalate	660	U
208-96-8	Acenaphthylene	660	U
606-20-2	2,6-Dinitrotoluene	660	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKV5

Lab Name:AQUATEC, INC. Contract:89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water)SOIL Lab Sample ID: BB1203V5S

Sample wt/vol: 30.0 (g/mL)G Lab File ID: BB1203V5S

Level: (low/med) LOW Date Received: 00/00/00

% Moisture: not dec. 0 dec._____ Date Extracted: 12/03/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/06/90

GPC Cleanup: (Y/N)Y pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/KG	Q
99-09-2	3-Nitroaniline	3200	U
83-32-9	Acenaphthene	660	U
51-28-5	2,4-Dinitrophenol	3200	U
100-02-7	4-Nitrophenol	3200	U
132-64-9	Dibenzofuran	660	U
121-14-2	2,4-Dinitrotoluene	660	U
84-66-2	Diethylphthalate	660	U
7005-72-3	4-Chlorophenyl-phenylether	660	U
86-73-7	Fluorene	660	U
100-01-6	4-Nitroaniline	3200	U
534-52-1	4,6-Dinitro-2-methylphenol	3200	U
86-30-6	N-Nitrosodiphenylamine (1)	660	U
101-55-3	4-Bromophenyl-phenylether	660	U
118-74-1	Hexachlorobenzene	660	U
87-86-5	Pentachlorophenol	3200	U
85-01-8	Phenanthrene	660	U
120-12-7	Anthracene	660	U
84-74-2	Di-n-butylphthalate	660	U
206-44-0	Fluoranthene	660	U
129-00-0	Pyrene	660	U
85-68-7	Butylbenzylphthalate	660	U
91-94-1	3,3'-Dichlorobenzidine	1300	U
56-55-3	Benzo(a)anthracene	660	U
218-01-9	Chrysene	660	U
117-81-7	bis(2-Ethylhexyl)phthalate	660	U
117-84-0	Di-n-octylphthalate	660	U
205-99-2	Benzo(b)fluoranthene	660	U
207-08-9	Benzo(k)fluoranthene	660	U
50-32-8	Benzo(a)pyrene	660	U
193-39-5	Indeno(1,2,3-cd)pyrene	660	U
53-70-3	Dibenz(a,h)anthracene	660	U
191-24-2	Benzo(g,h,i)perylene	660	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLKV5

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: BB1203V5S

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BB1203V5S

Level: (low/med) LOW Date Received: 00/00/00

% Moisture: not dec. 0 dec._____ Date Extracted: 12/03/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/06/90

GPC Cleanup: (Y/N) Y pH:____ Dilution Factor: 1.0

Number TICs found: 5

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN ALKENE	7.28	550	J
2.		UNKNOWN	7.92	310	J
3.		UNKNOWN	8.83	490	J
4.	123-42-2	2-PENTANONE, 4-HYDROXY-4-MET	10.07	8600	JA
5.		UNKNOWN	12.83	330	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKV8

Lab Name:AQUATEC, INC. Contract:89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water)SOIL Lab Sample ID: BB1204V8I2S

Sample wt/vol: 30.0 (g/mL)G Lab File ID: BB1204V8I2S

Level: (low/med) LOW Date Received: 00/00/00

% Moisture: not dec. 0 dec._____ Date Extracted: 12/04/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/07/90

GPC Cleanup: (Y/N)Y pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/KG	Q
108-95-2	Phenol	660	U
111-44-4	bis(2-Chloroethyl)ether	660	U
95-57-8	2-Chlorophenol	660	U
541-73-1	1,3-Dichlorobenzene	660	U
106-46-7	1,4-Dichlorobenzene	660	U
100-51-6	Benzyl alcohol	660	U
95-50-1	1,2-Dichlorobenzene	660	U
95-48-7	2-Methylphenol	660	U
108-60-1	bis(2-Chloroisopropyl)ether	660	U
106-44-5	4-Methylphenol	660	U
621-64-7	N-Nitroso-di-n-propylamine	660	U
67-72-1	Hexachloroethane	660	U
98-95-3	Nitrobenzene	660	U
78-59-1	Isophorone	660	U
88-75-5	2-Nitrophenol	660	U
105-67-9	2,4-Dimethylphenol	660	U
65-85-0	Benzoic acid	3200	U
111-91-1	bis(2-Chloroethoxy)methane	660	U
120-83-2	2,4-Dichlorophenol	660	U
120-82-1	1,2,4-Trichlorobenzene	660	U
91-20-3	Naphthalene	660	U
106-47-8	4-Chloroaniline	660	U
87-68-3	Hexachlorobutadiene	660	U
59-50-7	4-Chloro-3-methylphenol	660	U
91-57-6	2-Methylnaphthalene	660	U
77-47-4	Hexachlorocyclopentadiene	660	U
88-06-2	2,4,6-Trichlorophenol	660	U
95-95-4	2,4,5-Trichlorophenol	3200	U
91-58-7	2-Chloronaphthalene	660	U
88-74-4	2-Nitroaniline	3200	U
131-11-3	Dimethylphthalate	660	U
208-96-8	Acenaphthylene	660	U
606-20-2	2,6-Dinitrotoluene	660	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKV8

Lab Name:AQUATEC, INC. Contract:89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water)SOIL Lab Sample ID: BB1204V8I2S

Sample wt/vol: 30.0 (g/mL)G Lab File ID: BB1204V8I2S

Level: (low/med) LOW Date Received: 00/00/00

% Moisture: not dec. 0 dec._____ Date Extracted: 12/04/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/07/90

GPC Cleanup: (Y/N)Y pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/KG	Q
99-09-2	3-Nitroaniline	3200	U
83-32-9	Acenaphthene	660	U
51-28-5	2,4-Dinitrophenol	3200	U
100-02-7	4-Nitrophenol	3200	U
132-64-9	Dibenzofuran	660	U
121-14-2	2,4-Dinitrotoluene	660	U
84-66-2	Diethylphthalate	660	U
7005-72-3	4-Chlorophenyl-phenylether	660	U
86-73-7	Fluorene	660	U
100-01-6	4-Nitroaniline	3200	U
534-52-1	4,6-Dinitro-2-methylphenol	3200	U
86-30-6	N-Nitrosodiphenylamine (1)	660	U
101-55-3	4-Bromophenyl-phenylether	660	U
118-74-1	Hexachlorobenzene	660	U
87-86-5	Pentachlorophenol	3200	U
85-01-8	Phenanthrene	660	U
120-12-7	Anthracene	660	U
84-74-2	Di-n-butylphthalate	660	U
206-44-0	Fluoranthene	660	U
129-00-0	Pyrene	660	U
85-68-7	Butylbenzylphthalate	660	U
91-94-1	3,3'-Dichlorobenzidine	1300	U
56-55-3	Benzo(a)anthracene	660	U
218-01-9	Chrysene	660	U
117-81-7	bis(2-Ethylhexyl)phthalate	660	U
117-84-0	Di-n-octylphthalate	660	U
205-99-2	Benzo(b)fluoranthene	660	U
207-08-9	Benzo(k)fluoranthene	660	U
50-32-8	Benzo(a)pyrene	660	U
193-39-5	Indeno(1,2,3-cd)pyrene	660	U
53-70-3	Dibenz(a,h)anthracene	660	U
191-24-2	Benzo(g,h,i)perylene	660	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLKV8

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: BB1204V8I2S

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BB1204V8I2S

Level: (low/med) LOW Date Received: 00/00/00

% Moisture: not dec. 0 dec._____ Date Extracted: 12/04/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/07/90

GPC Cleanup: (Y/N) Y pH:____ Dilution Factor: 1.0

Number TICs found: 5

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN ALKENE	7.18	310	J
2.		UNKNOWN	8.77	500	J
3.	123-42-2	2-PENTANONE, 4-HYDROXY-4-MET	10.05	5300	JA
4.		UNKNOWN	12.80	370	J
5.		UNKNOWN HEXANEDIOIC ACID EST	38.78	2200	J
6.					
7.					
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKX5

Lab Name:AQUATEC, INC. Contract:89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water)SOIL Lab Sample ID: BB1214X5S

Sample wt/vol: 30.0 (g/mL)G Lab File ID: BB1214X5S

Level: (low/med) LOW Date Received: 00/00/00

% Moisture: not dec. 0 dec._____ Date Extracted: 12/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/26/90

GPC Cleanup: (Y/N)Y pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/KG	Q
108-95-2	Phenol	660	U
111-44-4	bis(2-Chloroethyl)ether	660	U
95-57-8	2-Chlorophenol	660	U
541-73-1	1,3-Dichlorobenzene	660	U
106-46-7	1,4-Dichlorobenzene	660	U
100-51-6	Benzyl alcohol	660	U
95-50-1	1,2-Dichlorobenzene	660	U
95-48-7	2-Methylphenol	660	U
108-60-1	bis(2-Chloroisopropyl)ether	660	U
106-44-5	4-Methylphenol	660	U
621-64-7	N-Nitroso-di-n-propylamine	660	U
67-72-1	Hexachloroethane	660	U
98-95-3	Nitrobenzene	660	U
78-59-1	Isophorone	660	U
88-75-5	2-Nitrophenol	660	U
105-67-9	2,4-Dimethylphenol	660	U
65-85-0	Benzoic acid	3200	U
111-91-1	bis(2-Chloroethoxy)methane	660	U
120-83-2	2,4-Dichlorophenol	660	U
120-82-1	1,2,4-Trichlorobenzene	660	U
91-20-3	Naphthalene	660	U
106-47-8	4-Chloroaniline	660	U
87-68-3	Hexachlorobutadiene	660	U
59-50-7	4-Chloro-3-methylphenol	660	U
91-57-6	2-Methylnaphthalene	660	U
77-47-4	Hexachlorocyclopentadiene	660	U
88-06-2	2,4,6-Trichlorophenol	660	U
95-95-4	2,4,5-Trichlorophenol	3200	U
91-58-7	2-Chloronaphthalene	660	U
88-74-4	2-Nitroaniline	3200	U
131-11-3	Dimethylphthalate	660	U
208-96-8	Acenaphthylene	660	U
606-20-2	2,6-Dinitrotoluene	660	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKX5

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: BB1214X5S

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BB1214X5S

Level: (low/med) LOW Date Received: 00/00/00

% Moisture: not dec. 0 dec._____ Date Extracted: 12/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/26/90

GPC Cleanup: (Y/N) Y pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	3200	U
83-32-9	Acenaphthene	660	U
51-28-5	2,4-Dinitrophenol	3200	U
100-02-7	4-Nitrophenol	3200	U
132-64-9	Dibenzofuran	660	U
121-14-2	2,4-Dinitrotoluene	660	U
84-66-2	Diethylphthalate	660	U
7005-72-3	4-Chlorophenyl-phenylether	660	U
86-73-7	Fluorene	660	U
100-01-6	4-Nitroaniline	3200	U
534-52-1	4,6-Dinitro-2-methylphenol	3200	U
86-30-6	N-Nitrosodiphenylamine (1)	660	U
101-55-3	4-Bromophenyl-phenylether	660	U
118-74-1	Hexachlorobenzene	660	U
87-86-5	Pentachlorophenol	3200	U
85-01-8	Phenanthrene	660	U
120-12-7	Anthracene	660	U
84-74-2	Di-n-butylphthalate	660	U
206-44-0	Fluoranthene	660	U
129-00-0	Pyrene	660	U
85-68-7	Butylbenzylphthalate	660	U
91-94-1	3,3'-Dichlorobenzidine	1300	U
56-55-3	Benzo(a)anthracene	660	U
218-01-9	Chrysene	660	U
117-81-7	bis(2-Ethylhexyl)phthalate	660	U
117-84-0	Di-n-octylphthalate	660	U
205-99-2	Benzo(b)fluoranthene	660	U
207-08-9	Benzo(k)fluoranthene	660	U
50-32-8	Benzo(a)pyrene	660	U
193-39-5	Indeno(1,2,3-cd)pyrene	660	U
53-70-3	Dibenz(a,h)anthracene	660	U
191-24-2	Benzo(g,h,i)perylene	660	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLKX5

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: BB1214X5S

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BB1214X5S

Level: (low/med) LOW Date Received: 00/00/00

% Moisture: not dec. 0 dec._____ Date Extracted: 12/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/26/90

GPC Cleanup: (Y/N) Y pH:____ Dilution Factor: 1.0

Number TICs found: 5

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN ALKENE	6.67	260	J
2.		UNKNOWN	8.25	580	J
3.	123-42-2	2-PENTANONE, 4-HYDROXY-4-MET	9.58	5400	JA
4.		UNKNOWN	12.38	480	J
5.		UNKNOWN	15.28	370	J
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
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18.					
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22.					
23.					
24.					
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26.					
27.					
28.					
29.					
30.					

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SSBZ-10MS

Lab Name:AQUATEC, INC. Contract:89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water)SOIL Lab Sample ID: 125330MS

Sample wt/vol: 30.1 (g/mL)G Lab File ID: B125330MSS

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec.21 dec._____ Date Extracted: 12/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/26/90

GPC Cleanup: (Y/N)Y pH: 8.4 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/KG	Q
108-95-2	Phenol	830	U
111-44-4	bis(2-Chloroethyl)ether	830	U
95-57-8	2-Chlorophenol	830	U
541-73-1	1,3-Dichlorobenzene	830	U
106-46-7	1,4-Dichlorobenzene	830	U
100-51-6	Benzyl alcohol	830	U
95-50-1	1,2-Dichlorobenzene	830	U
95-48-7	2-Methylphenol	830	U
108-60-1	bis(2-Chloroisopropyl)ether	830	U
106-44-5	4-Methylphenol	830	U
621-64-7	N-Nitroso-di-n-propylamine	830	U
67-72-1	Hexachloroethane	830	U
98-95-3	Nitrobenzene	830	U
78-59-1	Isophorone	830	U
88-75-5	2-Nitrophenol	830	U
105-67-9	2,4-Dimethylphenol	830	U
65-85-0	Benzoic acid	4000	U
111-91-1	bis(2-Chloroethoxy)methane	830	U
120-83-2	2,4-Dichlorophenol	830	U
120-82-1	1,2,4-Trichlorobenzene	830	U
91-20-3	Naphthalene	830	U
106-47-8	4-Chloroaniline	830	U
87-68-3	Hexachlorobutadiene	830	U
59-50-7	4-Chloro-3-methylphenol	830	U
91-57-6	2-Methylnaphthalene	830	U
77-47-4	Hexachlorocyclopentadiene	830	U
88-06-2	2,4,6-Trichlorophenol	830	U
95-95-4	2,4,5-Trichlorophenol	4000	U
91-58-7	2-Chloronaphthalene	830	U
88-74-4	2-Nitroaniline	4000	U
131-11-3	Dimethylphthalate	830	U
208-96-8	Acenaphthylene	830	U
606-20-2	2,6-Dinitrotoluene	830	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SSBZ-10MS

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: 125330MS

Sample wt/vol: 30.1 (g/mL) G Lab File ID: B125330MSS

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec. 21 dec. _____ Date Extracted: 12/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/26/90

GPC Cleanup: (Y/N) Y pH: 8.4 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	4000	U
83-32-9	Acenaphthene	4000	U
51-28-5	2,4-Dinitrophenol	4000	U
100-02-7	4-Nitrophenol	830	U
132-64-9	Dibenzofuran	830	U
121-14-2	2,4-Dinitrotoluene	830	U
84-66-2	Diethylphthalate	830	U
7005-72-3	4-Chlorophenyl-phenylether	830	U
86-73-7	Fluorene	4000	U
100-01-6	4-Nitroaniline	4000	U
534-52-1	4,6-Dinitro-2-methylphenol	830	U
86-30-6	N-Nitrosodiphenylamine (1)	830	U
101-55-3	4-Bromophenyl-phenylether	830	U
118-74-1	Hexachlorobenzene	830	U
87-86-5	Pentachlorophenol	830	U
85-01-8	Phenanthrene	830	U
120-12-7	Anthracene	180	J
84-74-2	Di-n-butylphthalate	830	U
206-44-0	Fluoranthene	830	U
129-00-0	Pyrene	1700	U
85-68-7	Butylbenzylphthalate	830	U
91-94-1	3,3'-Dichlorobenzidine	830	U
56-55-3	Benzo(a)anthracene	830	U
218-01-9	Chrysene	830	U
117-81-7	bis(2-Ethylhexyl)phthalate	830	U
117-84-0	Di-n-octylphthalate	830	U
205-99-2	Benzo(b)fluoranthene	830	U
207-08-9	Benzo(k)fluoranthene	830	U
50-32-8	Benzo(a)pyrene	830	U
193-39-5	Indeno(1,2,3-cd)pyrene	830	U
53-70-3	Dibenz(a,h)anthracene	830	U
191-24-2	Benzo(g,h,i)perylene	830	U

(1) - Cannot be separated from Diphenylamine

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SSBZ-10MSD

Lab Name:AQUATEC, INC. Contract:89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water)SOIL Lab Sample ID: 125330MD

Sample wt/vol: 30.5 (g/mL)G Lab File ID: B125330MDS

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec.21 dec._____ Date Extracted: 12/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/26/90

GPC Cleanup: (Y/N)Y pH: 8.4 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/KG	Q
108-95-2	Phenol	820	U
111-44-4	bis(2-Chloroethyl)ether	820	U
95-57-8	2-Chlorophenol	820	U
541-73-1	1,3-Dichlorobenzene	820	U
106-46-7	1,4-Dichlorobenzene	820	U
100-51-6	Benzyl alcohol	820	U
95-50-1	1,2-Dichlorobenzene	820	U
95-48-7	2-Methylphenol	820	U
108-60-1	bis(2-Chloroisopropyl)ether	820	U
106-44-5	4-Methylphenol	820	U
621-64-7	N-Nitroso-di-n-propylamine	820	U
67-72-1	Hexachloroethane	820	U
98-95-3	Nitrobenzene	820	U
78-59-1	Isophorone	820	U
88-75-5	2-Nitrophenol	820	U
105-67-9	2,4-Dimethylphenol	820	U
65-85-0	Benzoic acid	4000	U
111-91-1	bis(2-Chloroethoxy)methane	820	U
120-83-2	2,4-Dichlorophenol	820	U
120-82-1	1,2,4-Trichlorobenzene	820	U
91-20-3	Naphthalene	820	U
106-47-8	4-Chloroaniline	820	U
87-68-3	Hexachlorobutadiene	820	U
59-50-7	4-Chloro-3-methylphenol	820	U
91-57-6	2-Methylnaphthalene	820	U
77-47-4	Hexachlorocyclopentadiene	820	U
88-06-2	2,4,6-Trichlorophenol	820	U
95-95-4	2,4,5-Trichlorophenol	4000	U
91-58-7	2-Chloronaphthalene	820	U
88-74-4	2-Nitroaniline	4000	U
131-11-3	Dimethylphthalate	820	U
208-96-8	Acenaphthylene	820	U
606-20-2	2,6-Dinitrotoluene	820	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SSBZ-10MSD

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: 125330MD

Sample wt/vol: 30.5 (g/mL) G Lab File ID: B125330MDS

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec. 21 dec. _____ Date Extracted: 12/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/26/90

GPC Cleanup: (Y/N) Y pH: 8.4 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	4000	U
83-32-9	Acenaphthene		
51-28-5	2,4-Dinitrophenol	4000	U
100-02-7	4-Nitrophenol		
132-64-9	Dibenzofuran	820	U
121-14-2	2,4-Dinitrotoluene		
84-66-2	Diethylphthalate	820	U
7005-72-3	4-Chlorophenyl-phenylether	820	U
86-73-7	Fluorene	820	U
100-01-6	4-Nitroaniline	4000	U
534-52-1	4,6-Dinitro-2-methylphenol	4000	U
86-30-6	N-Nitrosodiphenylamine (1)	820	U
101-55-3	4-Bromophenyl-phenylether	820	U
118-74-1	Hexachlorobenzene	820	U
87-86-5	Pentachlorophenol		
85-01-8	Phenanthrene	820	U
120-12-7	Anthracene	820	U
84-74-2	Di-n-butylphthalate	190	J
206-44-0	Fluoranthene	820	U
129-00-0	Pyrene		
85-68-7	Butylbenzylphthalate	820	U
91-94-1	3,3'-Dichlorobenzidine	1600	U
56-55-3	Benzo(a)anthracene	820	U
218-01-9	Chrysene	820	U
117-81-7	bis(2-Ethylhexyl)phthalate	820	U
117-84-0	Di-n-octylphthalate	820	U
205-99-2	Benzo(b)fluoranthene	820	U
207-08-9	Benzo(k)fluoranthene	820	U
50-32-8	Benzo(a)pyrene	820	U
193-39-5	Indeno(1,2,3-cd)pyrene	820	U
53-70-3	Dibenz(a,h)anthracene	820	U
191-24-2	Benzo(g,h,i)perylene	820	U

(1) - Cannot be separated from Diphenylamine

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BZMW-5

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: 124981

Sample wt/vol: 30.4 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 11/29/90

% Moisture: not dec. 23 dec. _____ Date Extracted: 12/03/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/07/90

GPC Cleanup: (Y/N) Y pH: 8.3 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	21	U
319-85-7	beta-BHC	21	
319-86-8	delta-BHC	21	U
58-89-9	gamma-BHC (Lindane)	21	U
76-44-8	Heptachlor	17	Y
309-00-2	Aldrin	21	U
1024-57-3	Heptachlor epoxide	21	U
959-98-8	Endosulfan I	21	U
60-57-1	Dieldrin	41	U
72-55-9	4,4'-DDE	41	U
72-20-8	Endrin	41	U
33213-65-9	Endosulfan II	41	U
72-54-8	4,4'-DDD	41	U
1031-07-8	Endosulfan sulfate	41	U
50-29-3	4,4'-DDT	41	U
72-43-5	Methoxychlor	210	U
53494-70-5	Endrin ketone	41	U
5103-71-9	alpha-Chlordane	210	U
5103-74-2	gamma-Chlordane	210	U
8001-35-2	Toxaphene	410	U
12674-11-2	Aroclor-1016	210	U
11104-28-2	Aroclor-1221	210	U
11141-16-5	Aroclor-1232	210	U
53469-21-9	Aroclor-1242	300	
12672-29-6	Aroclor-1248	210	U
11097-69-1	Aroclor-1254	200	Y
11096-82-5	Aroclor-1260	410	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BZMW-4

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: 124983

Sample wt/vol: 30.6 (g/mL) G Lab File ID: B124983I2S

Level: (low/med) LOW Date Received: 11/29/90

% Moisture: not dec. 26 dec. _____ Date Extracted: 12/03/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/07/90

GPC Cleanup: (Y/N) Y pH: 10.0 Dilution Factor: 2.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	42	U
319-85-7	beta-BHC	42	U
319-86-8	delta-BHC	42	U
58-89-9	gamma-BHC (Lindane)	42	U
76-44-8	Heptachlor	42	U
309-00-2	Aldrin	42	U
1024-57-3	Heptachlor epoxide	42	U
959-98-8	Endosulfan I	42	U
60-57-1	Dieldrin	85	U
72-55-9	4,4'-DDE	85	U
72-20-8	Endrin	85	U
33213-65-9	Endosulfan II	85	U
72-54-8	4,4'-DDD	85	U
1031-07-8	Endosulfan sulfate	85	U
50-29-3	4,4'-DDT	85	U
72-43-5	Methoxychlor	420	U
53494-70-5	Endrin ketone	85	U
5103-71-9	alpha-Chlordane	420	U
5103-74-2	gamma-Chlordane	420	U
8001-35-2	Toxaphene	850	U
12674-11-2	Aroclor-1016	420	U
11104-28-2	Aroclor-1221	420	U
11141-16-5	Aroclor-1232	420	U
53469-21-9	Aroclor-1242	570	C
12672-29-6	Aroclor-1248	420	U
11097-69-1	Aroclor-1254	1600	C
11096-82-5	Aroclor-1260	850	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BZTB-1

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: 124989

Sample wt/vol: 30.1 (g/mL) G Lab File ID: B124989S

Level: (low/med) LOW Date Received: 11/30/90

% Moisture: not dec. 24 dec. _____ Date Extracted: 12/03/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/07/90

GPC Cleanup: (Y/N) Y pH: 8.2 Dilution Factor: 2.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	510	XC
319-85-7	beta-BHC	150	
319-86-8	delta-BHC	42	U
58-89-9	gamma-BHC (Lindane)	13	Y
76-44-8	Heptachlor	42	U
309-00-2	Aldrin	42	U
1024-57-3	Heptachlor epoxide	42	U
959-98-8	Endosulfan I	42	U
60-57-1	Dieldrin	84	U
72-55-9	4,4'-DDE	84	U
72-20-8	Endrin	84	U
33213-65-9	Endosulfan II	84	U
72-54-8	4,4'-DDD	84	U
1031-07-8	Endosulfan sulfate	84	U
50-29-3	4,4'-DDT	84	U
72-43-5	Methoxychlor	420	U
53494-70-5	Endrin ketone	84	U
5103-71-9	alpha-Chlordane	420	U
5103-74-2	gamma-Chlordane	420	U
8001-35-2	Toxaphene	840	U
12674-11-2	Aroclor-1016	420	U
11104-28-2	Aroclor-1221	420	U
11141-16-5	Aroclor-1232	420	U
53469-21-9	Aroclor-1242	710	C
12672-29-6	Aroclor-1248	420	U
11097-69-1	Aroclor-1254	1700	C
11096-82-5	Aroclor-1260	840	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BZTB-1DL

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: 124989D1

Sample wt/vol: 30.1 (g/mL) G Lab File ID: B124989S

Level: (low/med) LOW Date Received: 11/30/90

% Moisture: not dec. 24 dec. _____ Date Extracted: 12/03/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/07/90

GPC Cleanup: (Y/N) Y pH: 8.2 Dilution Factor: 20.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	280	YCD
319-85-7	beta-BHC	150	YD
319-86-8	delta-BHC	420	U
58-89-9	gamma-BHC (Lindane)	420	U
76-44-8	Heptachlor	420	U
309-00-2	Aldrin	420	U
1024-57-3	Heptachlor epoxide	420	U
959-98-8	Endosulfan I	420	U
60-57-1	Dieldrin	840	U
72-55-9	4,4'-DDE	840	U
72-20-8	Endrin	840	U
33213-65-9	Endosulfan II	840	U
72-54-8	4,4'-DDD	840	U
1031-07-8	Endosulfan sulfate	840	U
50-29-3	4,4'-DDT	840	U
72-43-5	Methoxychlor	4200	U
53494-70-5	Endrin ketone	840	U
5103-71-9	alpha-Chlordane	4200	U
5103-74-2	gamma-Chlordane	4200	U
8001-35-2	Toxaphene	8400	U
12674-11-2	Aroclor-1016	4200	U
11104-28-2	Aroclor-1221	4200	U
11141-16-5	Aroclor-1232	4200	U
53469-21-9	Aroclor-1242	4200	U
12672-29-6	Aroclor-1248	4200	U
11097-69-1	Aroclor-1254	2200	YCD
11096-82-5	Aroclor-1260	8400	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BZTB-2

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: 124991

Sample wt/vol: 30.4 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 11/30/90

% Moisture: not dec. 19 dec. _____ Date Extracted: 12/03/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/06/90

GPC Cleanup: (Y/N) Y pH: 8.3 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	19	U
319-85-7	beta-BHC	23	
319-86-8	delta-BHC	19	U
58-89-9	gamma-BHC (Lindane)	19	U
76-44-8	Heptachlor	19	U
309-00-2	Aldrin	19	U
1024-57-3	Heptachlor epoxide	19	U
959-98-8	Endosulfan I	19	U
60-57-1	Dieldrin	39	U
72-55-9	4,4'-DDE	39	U
72-20-8	Endrin	39	U
33213-65-9	Endosulfan II	39	U
72-54-8	4,4'-DDD	39	U
1031-07-8	Endosulfan sulfate	39	U
50-29-3	4,4'-DDT	39	U
72-43-5	Methoxychlor	190	U
53494-70-5	Endrin ketone	39	U
5103-71-9	alpha-Chlordane	190	U
5103-74-2	gamma-Chlordane	190	U
8001-35-2	Toxaphene	390	U
12674-11-2	Aroclor-1016	190	U
11104-28-2	Aroclor-1221	190	U
11141-16-5	Aroclor-1232	190	U
53469-21-9	Aroclor-1242	190	
12672-29-6	Aroclor-1248	190	U
11097-69-1	Aroclor-1254	330	Y
11096-82-5	Aroclor-1260	390	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BZTB-3

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: 124993

Sample wt/vol: 30.1 (g/mL) G Lab File ID: B124993I2S

Level: (low/med) LOW Date Received: 11/30/90

% Moisture: not dec. 15 dec. _____ Date Extracted: 12/03/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/07/90

GPC Cleanup: (Y/N) Y pH: 8.0 Dilution Factor: 10.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	73	Y
319-85-7	beta-BHC	58	Y
319-86-8	delta-BHC	190	U
58-89-9	gamma-BHC (Lindane)	190	U
76-44-8	Heptachlor	190	U
309-00-2	Aldrin	190	U
1024-57-3	Heptachlor epoxide	190	U
959-98-8	Endosulfan I	190	U
60-57-1	Dieldrin	380	U
72-55-9	4,4'-DDE	380	U
72-20-8	Endrin	380	U
33213-65-9	Endosulfan II	380	U
72-54-8	4,4'-DDD	380	U
1031-07-8	Endosulfan sulfate	380	U
50-29-3	4,4'-DDT	380	U
72-43-5	Methoxychlor	1900	U
53494-70-5	Endrin ketone	380	U
5103-71-9	alpha-Chlordane	1900	U
5103-74-2	gamma-Chlordane	1900	U
8001-35-2	Toxaphene	3800	U
12674-11-2	Aroclor-1016	1900	U
11104-28-2	Aroclor-1221	1900	U
11141-16-5	Aroclor-1232	1900	U
53469-21-9	Aroclor-1242	930	YC
12672-29-6	Aroclor-1248	1900	U
11097-69-1	Aroclor-1254	9500	C
11096-82-5	Aroclor-1260	3800	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BZTB-4

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: 125053

Sample wt/vol: 30.0 (g/mL) G Lab File ID: B125053D2S

Level: (low/med) LOW Date Received: 12/01/90

% Moisture: not dec. 21 dec. _____ Date Extracted: 12/04/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/06/90

GPC Cleanup: (Y/N) Y pH: 8.0 Dilution Factor: 10.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	50	Y
319-85-7	beta-BHC	36	Y
319-86-8	delta-BHC	200	U
58-89-9	gamma-BHC (Lindane)	200	U
76-44-8	Heptachlor	200	U
309-00-2	Aldrin	200	U
1024-57-3	Heptachlor epoxide	200	U
959-98-8	Endosulfan I	200	U
60-57-1	Dieldrin	410	U
72-55-9	4,4'-DDE	410	U
72-20-8	Endrin	410	U
33213-65-9	Endosulfan II	410	U
72-54-8	4,4'-DDD	410	U
1031-07-8	Endosulfan sulfate	410	U
50-29-3	4,4'-DDT	410	U
72-43-5	Methoxychlor	2000	U
53494-70-5	Endrin ketone	410	U
5103-71-9	alpha-Chlordane	2000	U
5103-74-2	gamma-Chlordane	2000	U
8001-35-2	Toxaphene	4100	U
12674-11-2	Aroclor-1016	2000	U
11104-28-2	Aroclor-1221	2000	U
11141-16-5	Aroclor-1232	2000	U
53469-21-9	Aroclor-1242	6400	C
12672-29-6	Aroclor-1248	2000	U
11097-69-1	Aroclor-1254	10000	C
11096-82-5	Aroclor-1260	4100	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SDBZ-1B

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: 125328

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec. 16 dec. _____ Date Extracted: 12/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 01/07/91

GPC Cleanup: (Y/N) Y pH: 8.2 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	19	U
319-85-7	beta-BHC	19	U
319-86-8	delta-BHC	19	U
58-89-9	gamma-BHC (Lindane)	19	U
76-44-8	Heptachlor	19	U
309-00-2	Aldrin	19	U
1024-57-3	Heptachlor epoxide	19	U
959-98-8	Endosulfan I	19	U
60-57-1	Dieldrin	38	U
72-55-9	4,4'-DDE	38	U
72-20-8	Endrin	38	U
33213-65-9	Endosulfan II	38	U
72-54-8	4,4'-DDD	38	U
1031-07-8	Endosulfan sulfate	38	U
50-29-3	4,4'-DDT	38	U
72-43-5	Methoxychlor	190	U
53494-70-5	Endrin ketone	38	U
5103-71-9	alpha-Chlordane	190	U
5103-74-2	gamma-Chlordane	190	U
8001-35-2	Toxaphene	380	U
12674-11-2	Aroclor-1016	190	U
11104-28-2	Aroclor-1221	190	U
11141-16-5	Aroclor-1232	190	U
53469-21-9	Aroclor-1242	190	U
12672-29-6	Aroclor-1248	190	U
11097-69-1	Aroclor-1254	380	U
11096-82-5	Aroclor-1260	380	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SDBZ-2B

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: 125329

Sample wt/vol: 30.6 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec. 20 dec. _____ Date Extracted: 12/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 01/07/91

GPC Cleanup: (Y/N) Y pH: 8.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	9.8	Y
319-85-7	beta-BHC	20	U
319-86-8	delta-BHC	20	U
58-89-9	gamma-BHC (Lindane)	20	U
76-44-8	Heptachlor	20	U
309-00-2	Aldrin	20	U
1024-57-3	Heptachlor epoxide	20	U
959-98-8	Endosulfan I	20	U
60-57-1	Dieldrin	39	U
72-55-9	4,4'-DDE	39	U
72-20-8	Endrin	39	U
33213-65-9	Endosulfan II	39	U
72-54-8	4,4'-DDD	39	U
1031-07-8	Endosulfan sulfate	39	U
50-29-3	4,4'-DDT	39	U
72-43-5	Methoxychlor	200	U
53494-70-5	Endrin ketone	39	U
5103-71-9	alpha-Chlordane	200	U
5103-74-2	gamma-Chlordane	200	U
8001-35-2	Toxaphene	390	U
12674-11-2	Aroclor-1016	200	U
11104-28-2	Aroclor-1221	200	U
11141-16-5	Aroclor-1232	200	U
53469-21-9	Aroclor-1242	200	U
12672-29-6	Aroclor-1248	200	U
11097-69-1	Aroclor-1254	200	Y
11096-82-5	Aroclor-1260	390	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SSBZ-10

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: 125330

Sample wt/vol: 30.4 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec. 21 dec. _____ Date Extracted: 12/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 01/07/91

GPC Cleanup: (Y/N) Y pH: 8.4 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	20	U
319-85-7	beta-BHC	20	U
319-86-8	delta-BHC	20	U
58-89-9	gamma-BHC (Lindane)	20	U
76-44-8	Heptachlor	20	U
309-00-2	Aldrin	20	U
1024-57-3	Heptachlor epoxide	20	U
959-98-8	Endosulfan I	20	U
60-57-1	Dieldrin	40	U
72-55-9	4,4'-DDE	40	U
72-20-8	Endrin	40	U
33213-65-9	Endosulfan II	40	U
72-54-8	4,4'-DDD	40	U
1031-07-8	Endosulfan sulfate	40	U
50-29-3	4,4'-DDT	40	U
72-43-5	Methoxychlor	200	U
53494-70-5	Endrin ketone	40	U
5103-71-9	alpha-Chlordane	200	U
5103-74-2	gamma-Chlordane	200	U
8001-35-2	Toxaphene	400	U
12674-11-2	Aroclor-1016	200	U
11104-28-2	Aroclor-1221	200	U
11141-16-5	Aroclor-1232	200	U
53469-21-9	Aroclor-1242	200	U
12672-29-6	Aroclor-1248	200	U
11097-69-1	Aroclor-1254	400	U
11096-82-5	Aroclor-1260	400	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLKD8

Lab Name:AQUATEC, INC. Contract:89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water)SOIL Lab Sample ID: PBLKD8

Sample wt/vol: 30.0 (g/mL)G Lab File ID: _____

Level: (low/med) LOW Date Received: _____

% Moisture: not dec._____ dec._____ Date Extracted: 12/03/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/06/90

GPC Cleanup: (Y/N)Y pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/KG	Q
319-84-6	alpha-BHC	16	U
319-85-7	beta-BHC	16	U
319-86-8	delta-BHC	16	U
58-89-9	gamma-BHC (Lindane)	16	U
76-44-8	Heptachlor	16	U
309-00-2	Aldrin	16	U
1024-57-3	Heptachlor epoxide	16	U
959-98-8	Endosulfan I	16	U
60-57-1	Dieldrin	32	U
72-55-9	4,4'-DDE	32	U
72-20-8	Endrin	32	U
33213-65-9	Endosulfan II	32	U
72-54-8	4,4'-DDD	32	U
1031-07-8	Endosulfan sulfate	32	U
50-29-3	4,4'-DDT	32	U
72-43-5	Methoxychlor	160	U
53494-70-5	Endrin ketone	32	U
5103-71-9	alpha-Chlordane	160	U
5103-74-2	gamma-Chlordane	160	U
8001-35-2	Toxaphene	320	U
12674-11-2	Aroclor-1016	160	U
11104-28-2	Aroclor-1221	160	U
11141-16-5	Aroclor-1232	160	U
53469-21-9	Aroclor-1242	160	U
12672-29-6	Aroclor-1248	160	U
11097-69-1	Aroclor-1254	320	U
11096-82-5	Aroclor-1260	320	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLKD9

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: PBLKD9

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: _____

% Moisture: not dec._____ dec._____ Date Extracted: 12/04/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/06/90

GPC Cleanup: (Y/N) Y pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	16	U
319-85-7	beta-BHC	16	U
319-86-8	delta-BHC	16	U
58-89-9	gamma-BHC (Lindane)	16	U
76-44-8	Heptachlor	16	U
309-00-2	Aldrin	16	U
1024-57-3	Heptachlor epoxide	16	U
959-98-8	Endosulfan I	16	U
60-57-1	Dieldrin	32	U
72-55-9	4,4'-DDE	32	U
72-20-8	Endrin	32	U
33213-65-9	Endosulfan II	32	U
72-54-8	4,4'-DDD	32	U
1031-07-8	Endosulfan sulfate	32	U
50-29-3	4,4'-DDT	32	U
72-43-5	Methoxychlor	160	U
53494-70-5	Endrin ketone	32	U
5103-71-9	alpha-Chlordane	160	U
5103-74-2	gamma-Chlordane	160	U
8001-35-2	Toxaphene	320	U
12674-11-2	Aroclor-1016	160	U
11104-28-2	Aroclor-1221	160	U
11141-16-5	Aroclor-1232	160	U
53469-21-9	Aroclor-1242	160	U
12672-29-6	Aroclor-1248	160	U
11097-69-1	Aroclor-1254	320	U
11096-82-5	Aroclor-1260	320	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLKF5

Lab Name:AQUATEC, INC. Contract:89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water)SOIL Lab Sample ID: PBLKF5

Sample wt/vol: 30.0 (g/mL)G Lab File ID: _____

Level: (low/med) LOW Date Received: _____

% Moisture: not dec._____ dec._____ Date Extracted: 12/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 01/07/91

GPC Cleanup: (Y/N)Y pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/KG	Q
319-84-6	alpha-BHC	16	U
319-85-7	beta-BHC	16	U
319-86-8	delta-BHC	16	U
58-89-9	gamma-BHC (Lindane)	16	U
76-44-8	Heptachlor	16	U
309-00-2	Aldrin	16	U
1024-57-3	Heptachlor epoxide	16	U
959-98-8	Endosulfan I	16	U
60-57-1	Dieldrin	32	U
72-55-9	4,4'-DDE	32	U
72-20-8	Endrin	32	U
33213-65-9	Endosulfan II	32	U
72-54-8	4,4'-DDD	32	U
1031-07-8	Endosulfan sulfate	32	U
50-29-3	4,4'-DDT	32	U
72-43-5	Methoxychlor	160	U
53494-70-5	Endrin ketone	32	U
5103-71-9	alpha-Chlordane	160	U
5103-74-2	gamma-Chlordane	160	U
8001-35-2	Toxaphene	320	U
12674-11-2	Aroclor-1016	160	U
11104-28-2	Aroclor-1221	160	U
11141-16-5	Aroclor-1232	160	U
53469-21-9	Aroclor-1242	160	U
12672-29-6	Aroclor-1248	160	U
11097-69-1	Aroclor-1254	320	U
11096-82-5	Aroclor-1260	320	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SSBZ-10MS

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: 125330MS

Sample wt/vol: 30.1 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec. 21 dec. _____ Date Extracted: 12/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 01/07/91

GPC Cleanup: (Y/N) Y pH: 8.4 Dilution Factor: 3.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	61	U
319-85-7	beta-BHC	61	U
319-86-8	delta-BHC	61	U
58-89-9	gamma-BHC (Lindane)		
76-44-8	Heptachlor		
309-00-2	Aldrin		
1024-57-3	Heptachlor epoxide	61	U
959-98-8	Endosulfan I	61	U
60-57-1	Dieldrin		
72-55-9	4,4'-DDE	120	U
72-20-8	Endrin		
33213-65-9	Endosulfan II	120	U
72-54-8	4,4'-DDD	120	U
1031-07-8	Endosulfan sulfate	120	U
50-29-3	4,4'-DDT		
72-43-5	Methoxychlor	610	U
53494-70-5	Endrin ketone	120	U
5103-71-9	alpha-Chlordane	610	U
5103-74-2	gamma-Chlordane	610	U
8001-35-2	Toxaphene	1200	U
12674-11-2	Aroclor-1016	610	U
11104-28-2	Aroclor-1221	610	U
11141-16-5	Aroclor-1232	610	U
53469-21-9	Aroclor-1242	610	U
12672-29-6	Aroclor-1248	610	U
11097-69-1	Aroclor-1254	1200	U
11096-82-5	Aroclor-1260	1200	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SSBZ-10MSD

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix: (soil/water) SOIL Lab Sample ID: 125330MD

Sample wt/vol: 30.5 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 12/07/90

% Moisture: not dec. 21 dec. _____ Date Extracted: 12/14/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 01/07/91

GPC Cleanup: (Y/N) Y pH: 8.4 Dilution Factor: 3.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	60	U
319-85-7	beta-BHC	60	U
319-86-8	delta-BHC	60	U
58-89-9	gamma-BHC (Lindane)		
76-44-8	Heptachlor		
309-00-2	Aldrin		
1024-57-3	Heptachlor epoxide	60	U
959-98-8	Endosulfan I	60	U
60-57-1	Dieldrin		
72-55-9	4,4'-DDE	120	U
72-20-8	Endrin		
33213-65-9	Endosulfan II	120	U
72-54-8	4,4'-DDD	120	U
1031-07-8	Endosulfan sulfate	120	U
50-29-3	4,4'-DDT		
72-43-5	Methoxychlor	600	U
53494-70-5	Endrin ketone	120	U
5103-71-9	alpha-Chlordane	600	U
5103-74-2	gamma-Chlordane	600	U
8001-35-2	Toxaphene	1200	U
12674-11-2	Aroclor-1016	600	U
11104-28-2	Aroclor-1221	600	U
11141-16-5	Aroclor-1232	600	U
53469-21-9	Aroclor-1242	600	U
12672-29-6	Aroclor-1248	600	U
11097-69-1	Aroclor-1254	1200	U
11096-82-5	Aroclor-1260	1200	U

QC SUMMARY

aquatec
ENVIRONMENTAL SERVICES
75 Green Mountain Drive, So. Burlington, VT 05403
TEL. 802/658-1074

QC Summary
Case 24147, SDG 124981
ETR No's. 24147, 24151, 24182

Parameter	EPA Standard	Found (ug/l)	True (ug/l)	% Recovery
Arsenic	IVQCS	3982.15	4000.0	99.6
		3846.80	4000.0	96.2
		3798.30	4000.0	95.0
		3874.90	4000.0	96.9
Barium	IVQCS	491.53	500.0	98.3
		493.61	500.0	98.7
		487.42	500.0	97.5
		471.80	500.0	94.4
Cadmium	IVQCS	502.08	500.0	100.4
		488.82	500.0	97.8
		504.13	500.0	100.8
		484.27	500.0	96.9
Chromium	IVQCS	483.15	500.0	96.6
		482.49	500.0	96.5
		480.95	500.0	96.2
		470.83	500.0	94.2
Lead	IVQCS	1042.41	1000.0	104.2
		912.01	1000.0	91.2
		949.93	1000.0	95.0
		906.34	1000.0	90.6
Mercury	Standard	1.81	1.8	100.6
		1.95	1.8	108.3
		2.04	1.8	113.3
		1.76	1.8	97.8
		1.99	1.8	110.6
		1.76	1.8	97.8
		1.90	1.8	105.6
		1.90	1.8	105.6
		1.90	1.8	105.6
		2.09	1.8	116.1
		1.90	1.8	105.6
		1.90	1.8	105.6
		1.90	1.8	105.6
Selenium	Standard	15.31	15.0	102.1
		15.56	15.0	103.7
		15.14	15.0	100.9
		16.41	15.0	109.4
		15.99	15.0	106.6
		14.98	15.0	99.9
		16.32	15.0	108.8

QC Summary
Case 24147, SDG 124981
ETR No's. 24147, 24151, 24182

Parameter	EPA Standard	Found (ug/l)	True (ug/l)	% Recovery
Selenium	Standard	15.48	15.0	103.2
		15.82	15.0	105.5
		16.07	15.0	107.1
		16.24	15.0	108.3
		14.72	15.0	98.1
		14.47	15.0	96.5
Silver	IVQCS	461.04	500.0	92.2
		450.27	500.0	90.1
		451.23	500.0	90.2
	IVQCS	474.71	500.0	94.9
		479.33	500.0	95.9
		471.55	500.0	94.3
		463.83	500.0	92.8

125330

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.
SSBZ-10

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 124981

Matrix (soil/water): SOIL Level (low/med): _____

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony	75-125	8.9480		8.1000	U	69.1	12.9	N	P
Arsenic	75-125	16.9050		12.5886		5.8	74.4	N	E
Barium	75-125	321.1240		430.0520		276.6	-39.4	N	P
Beryllium	75-125	6.3180		0.8550		6.9	79.2		P
Cadmium	75-125	7.4830		2.3560		6.9	74.3	N	P
Calcium									NR
Chromium	75-125	49.0980		25.6000		27.7	84.8		P
Cobalt	75-125	67.1150		11.8060		69.1	80.0		P
Copper	75-125	47.5430		21.5560		34.6	75.1		P
Iron									NR
Lead		14.2728		16.8032		2.9	-87.3		E
Magnesium									NR
Manganese		637.1840		619.1120		69.1	26.2		P
Mercury	75-125	0.6847		0.1120	U	0.6	114.1		CV
Nickel	75-125	75.6190		29.6900		69.1	66.5	N	P
Potassium									NR
Selenium	75-125	7.3119	W	10.8866	U	1.5	0.0	N	E
Silver	75-125	4.7200		1.3000	U	6.9	68.4	N	P
Sodium									NR
Thallium	75-125	2.1131		1.4000	U	7.3	28.9	N	E
Vanadium	75-125	88.2350		33.3610		69.1	79.4		P
Zinc	75-125	126.8680		68.8070		69.1	84.0		P
Cyanide	75-125	7.1628		0.7300	U	7.1	100.9		C

Comments:

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.
SSBZ-10

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 124981

Matrix (soil/water): SOIL Level (low/med): _____

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead	75-125	47.2540		13.5000	U	69.1	68.4	N	P
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

Comments:

125330

5B

POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

SSBZ-10

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 124981

Matrix (soil/water): SOIL Level (low/med): _____

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									
Antimony		614.24		60.00	U	500.0	122.8		P
Arsenic									
Barium		5228.32		3190.64		2000.0	101.9		P
Beryllium									
Cadmium		66.66		17.48		50.0	98.4		P
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead		360.51		100.00	U	500	72.1		P
Magnesium									
Manganese									
Mercury									
Nickel		613.28		220.27		500.0	78.16		P
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

Comments:

125330

6
DUPLICATES

EPA SAMPLE NO.
SSBZ-10

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 124981

Matrix (soil/water): SOIL Level (low/med): _____

% Solids for Sample: 79.4 % Solids for Duplicate: 78.7

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		17837.7380		15989.0100		10.9		P
Antimony	±8.1	8.1000	U	8.1000	U			P
Arsenic		12.5886		13.1807		4.6		F
Barium	±27.0	430.0520		112.6930		116.9	*	P
Beryllium	±0.7	0.8550		0.7970		7.0		P
Cadmium	±0.7	2.3560		2.2060		6.6		P
Calcium		56615.4100		62709.8280		10.3		P
Chromium		25.6000		23.7050		7.7		P
Cobalt	±6.7	11.8060		10.9460		7.6		P
Copper		21.5560		21.5450		0.1		P
Iron		33484.0250		30401.3760		9.7		P
Lead		16.8032		14.3420		15.8		F
Magnesium		14614.7170		12594.0720		14.9		P
Manganese		619.1120		578.6270		6.8		P
Mercury	±0.1	0.1100	U	0.1000	U			CV
Nickel		29.6900		25.6860		14.5		P
Potassium		3293.0100		2766.2810		17.4		P
Selenium	±0.7	6.8860	U	7.2581	U			F
Silver	±1.3	1.3000	U	1.4000	U			P
Sodium	±674.3	674.0000	U	676.0000	U			P
Thallium	±1.4	1.4000	U	1.5000	U			F
Vanadium	±6.7	33.3610		30.8960		7.7		P
Zinc		68.8070		68.5500		0.4		P
Cyanide	±0.7	0.7300	U	0.7400	U			C

6
DUPLICATES

EPA SAMPLE NO.

Lab Name: AQUATEC, INC. Contract: 89133 | SSBZ10

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 124981

Matrix (soil/water): SOIL Level (low/med): _____

% Solids for Sample: 79.4 % Solids for Duplicate: 78.7

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum								
Antimony								
Arsenic								
Barium								
Beryllium								
Cadmium								
Calcium								
Chromium								
Cobalt								
Copper								
Iron								
Lead	±13.5	13.5000	U	13.5000	U			P
Magnesium								
Manganese								
Mercury								
Nickel								
Potassium								
Selenium								
Silver								
Sodium								
Thallium								
Vanadium								
Zinc								
Cyanide								

2B
SOIL VOLATILE SURROGATE RECOVERY

Lab Name:AQUATEC, INC. Contract:89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Level:(low/med) LOW

	EPA SAMPLE NO.	S1 (TOL) #	S2 (BFB) #	S3 (DCE) #	OTHER	TOT OUT
01	VBLKD1	108 _	108 _	98 _		0
02	BZMW-5	100 _	85 _	91 _		0
03	BZMW-4	101 _	90 _	91 _		0
04	BZTB-1	101 _	82 _	89 _		0
05	BZTB-2	101 _	96 _	91 _		0
06	BZTB-3	106 _	105 _	89 _		0
07	VBLKF6	98 _	100 _	98 _		0
08	BZTB-4	102 _	97 _	96 _		0
09	VBLKJ8	100 _	105 _	100 _		0
10	SDBZ-1B	95 _	99 _	100 _		0
11	SDBZ-2B	99 _	105 _	103 _		0
12	SSBZ-10	99 _	96 _	101 _		0
13	SSBZ-10MS	98 _	96 _	97 _		0
14	VBLKK1	106 _	109 _	106 _		0
15	SSBZ-10MSD	101 _	97 _	101 _		0
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

	QC LIMITS
S1 (TOL) = Toluene-d8	(81-117)
S2 (BFB) = Bromofluorobenzene	(74-121)
S3 (DCE) = 1,2-Dichloroethane-d4	(70-121)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

FORM II VOA-2 1/87 Rev.

000679 F-226

3B

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:AQUATEC, INC. Contract:89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix Spike - EPA Sample No.: SSBZ-10 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	92	0	101	110	59-172
Trichloroethene	92	0	97	105	62-137
Benzene	92	0	89	97	66-142
Toluene	92	0	93	101	59-139
Chlorobenzene	92	0	93	101	60-133

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	92	100	108	1	22	59-172
Trichloroethene	92	91	99	6	24	62-137
Benzene	92	90	98	1	21	66-142
Toluene	92	88	95	6	21	59-139
Chlorobenzene	92	87	95	6	21	60-133

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS: _____

_____

QC SUMMARY

aquatec
ENVIRONMENTAL SERVICES
75 Green Mountain Drive, So. Burlington, VT 05403
TEL. 802/658-1074

2D

SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Level: (low/med) LOW

	EPA SAMPLE NO.	S1 (NBZ)	#	S2 (FBP)	#	S3 (TPH)	#	S4 (PHL)	#	S5 (2FP)	#	S6 (TBP)	#	OTHER	TOT OUT
01	SBLKV5	88		99		90		87		85		73			0
02	BZMW-5	65	D	80	D	76	D	70	D	68	D	69	D		0
03	BZMW-4	79		77		73		72		69		69			0
04	BZTB-1	79	D	87	D	88	D	78	D	76	D	83	D		0
05	BZTB-2	90		87		82		80		76		78			0
06	BZTB-3	79		80		81		71		70		76			0
07	BZTB-4	64	D	70	D	66	D	61	D	63	D	66	D		0
08	SBLKV8	71		79		64		69		69		53			0
09	SBLKX5	75		85		90		74		72		69			0
10	SDBZ-1B	77		82		91		79		77		94			0
11	SDBZ-2B	81		82		82		77		74		89			0
12	SSBZ-10	83		87		88		76		72		78			0
13	SSBZ-10MS	83		83		90		78		72		83			0
14	SSBZ-10MSD	80		78		83		76		68		83			0
15															
16															
17															
18															
19															
20															
21															
22															
23															
24															
25															
26															
27															
28															
29															
30															

	QC LIMITS
S1 (NBZ) = Nitrobenzene-d5	(23-120)
S2 (FBP) = 2-Fluorobiphenyl	(30-115)
S3 (TPH) = Terphenyl-d14	(18-137)
S4 (PHL) = Phenol-d6	(24-113)
S5 (2FP) = 2-Fluorophenol	(25-121)
S6 (TBP) = 2,4,6-Tribromophenol	(19-122)

\# Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

FORM II SV-2

1/87 Rev.

000952

F-229

3D

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: AQUATEC, INC. Contract: 89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix Spike - EPA Sample No.: SSBZ-10 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	#	QC LIMITS REC.
Phenol	16822	0	11096	66		26- 90
2-Chlorophenol	16822	0	11814	70		25-102
1,4-Dichlorobenzene	8411	0	7070	84		28-104
N-Nitroso-di-n-prop.(1)	8411	0	7079	84		41-126
1,2,4-Trichlorobenzene	8411	0	6999	83		38-107
4-Chloro-3-methylphenol	16822	0	10979	65		26-103
Acenaphthene	8411	0	8246	98		31-137
4-Nitrophenol	16822	0	12877	77		11-114
2,4-Dinitrotoluene	8411	0	6850	81		28- 89
Pentachlorophenol	16822	0	14771	88		17-109
Pyrene	8411	0	7553	90		35-142

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	#	% RPD	#	QC LIMITS RPD	REC.
Phenol	16601	10689	64		2		35	26- 90
2-Chlorophenol	16601	11256	68		4		50	25-102
1,4-Dichlorobenzene	8300	6584	79		6		27	28-104
N-Nitroso-di-n-prop.(1)	8300	6718	81		4		38	41-126
1,2,4-Trichlorobenzene	8300	6675	80		3		23	38-107
4-Chloro-3-methylphenol	16601	11373	69		5		33	26-103
Acenaphthene	8300	7789	94		4		19	31-137
4-Nitrophenol	16601	12864	77		1		50	11-114
2,4-Dinitrotoluene	8300	6668	80		1		47	28- 89
Pentachlorophenol	16601	14391	87		1		47	17-109
Pyrene	8300	6982	84		7		36	35-142

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 11 outside limits
Spike Recovery: 0 out of 22 outside limits

COMMENTS: _____

2F

SOIL PESTICIDE SURROGATE RECOVERY

Lab Name:AQUATEC, INC. Contract:89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Level:(low/med)LOW

	EPA SAMPLE NO.	S1 (DBC) #	OTHER
01	PBLKD9	80	
02	PBLKD8	97	
03	BZTB-4	88	
04	BZTB-2	78	
05	BZMW-4	76	
06	BZTB-1DL	93	
07	BZTB-1	79	
08	BZTB-3	87	
09	BZMW-5	72	
10	PBLKF5	94	
11	SDBZ-1B	93	
12	SDBZ-2B	82	
13	SSBZ-10	90	
14	SSBZ-10MS	96	
15	SSBZ-10MSD	94	
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			

ADVISORY QC LIMITS (20-150)

S1 (DBC) = Dibutylchlorendate

Column to be used to flag recovery values

* Values outside of QC limits

D Surrogates diluted out

FORM II PEST-2 1/87 Rev.

3F

SOIL PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:AQUATEC, INC. Contract:89133

Lab Code: AQUAI Case No.: 24147 SAS No.: _____ SDG No.: 12498

Matrix Spike - EPA Sample No.: SSBZ-10 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	#	QC LIMITS REC.
gamma-BHC (Lindane)	67.29	0.00	52.82	78		46-127
Heptachlor	67.29	0.00	62.55	93		35-130
Aldrin	67.29	0.00	55.68	83		34-132
Dieldrin	168.22	0.00	146.04	87		31-134
Endrin	168.22	0.00	168.29	100		42-139
4,4'-DDT	168.22	0.00	136.09	81		23-134

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	#	% RPD	#	QC LIMITS RPD	REC.
gamma-BHC (Lindane)	66.40	50.67	76		3		50	46-127
Heptachlor	66.40	57.05	86		8		31	35-130
Aldrin	66.40	50.73	76		9		43	34-132
Dieldrin	166.01	137.60	83		5		38	31-134
Endrin	166.01	158.18	95		5		45	42-139
4,4'-DDT	166.01	127.84	77		5		50	23-134

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 6 outside limits
Spike Recovery: 0 out of 12 outside limits

COMMENTS: _____

APPENDIX G

QA/QC REPORT

APPENDIX G

QA/QC REPORTS

Appendix G contains the case narratives submitted with the data packages by Aquatec Inc. The narratives discuss any problems encountered during sample analyses and the qualifiers used in the data package. The validation report from Data Validation Services covering the samples from the Brzezinski Property site is also presented.

The validator discovered that the d8-toluene surrogate recovery during the VOC analysis was just below the required limit. Trace quantities of contaminants were detected in the sample analyzed with this d8-toluene recovery.

LMS concluded that a reanalysis of the sample would not be necessary for several reasons, as cited in the Data Usability Report. The remaining data for the Brzezinski Property are compliant and usable without qualification.

aquatec INC. ENVIRONMENTAL SERVICES

75 GREEN MOUNTAIN DRIVE, SOUTH BURLINGTON, VERMONT 05403, TELEPHONE (802) 658-1074

January 23, 1991

RECEIVED
JAN 24 1989
LMS ENGINEERS

William Ahlert, Ph.D.
Lawler, Matusky & Skelly Engineers
One Blue Hill Plaza
P.O. Box 1509
Pearl River, NY 10965

Re: Aquatec Project No. 89133
Analytical Services Subcontract to LMS/NYSDEC
Contract No. D001918, Amendment 3
Case No. 24147; SDG No. 124981
ETR No's. 24147, 24151, 24182 and 24257

Dear Dr. Ahlert:

Enclosed are the results of analyses performed on Brzezinski site soil/sediment samples received from LMS.

The samples were received intact on November 29, November 30, December 1, and December 7, 1990. The breakage of one 500 ml amber glass bottle of sample SDBZ-1B at Aquatec on December 7, 1990 did not preclude the laboratory from performing all of the required testing.

Laboratory numbers were assigned to the samples and were designated as follows:

Aquatec ETR No.	LMS Sample I.D.	Aquatec Lab No.	Sample Matrix
24147	BZMW-5	124981	soil/sediment
	BZMW-5	124982	EPTOX extract
	BZMW-4	124983	soil/sediment
	BZMW-4	124984	EPTOX extract
24151	BZTB-1	124989	soil/sediment
	BZTB-1	124990	EPTOX extract
	BZTB-2	124991	soil/sediment
	BZTB-2	124992	EPTOX extract
	BZTB-3	124993	soil/sediment
	BZTB-3	124994	EPTOX extract
24182	BZTB-4	125053	soil/sediment
	BZTB-4	125054	EPTOX extract
24257	SDBZ-1B	125328	soil/sediment
	SDBZ-2B	125329	soil/sediment
	SSBZ-10	125330	soil/sediment

Additional quantities of sample SSBZ-10 were submitted to the laboratory to provide for quality control (QC) analyses. Subsamples of SSBZ-10 used for QC analyses were independently logged into the laboratory for the purpose of internal sample tracking. These QC samples were assigned the laboratory numbers 125330MS (matrix spike), 125330MD (matrix spike duplicate), and 125330DP (duplicate).

Additional qualifiers have been used in reporting the pesticide/PCB results. They are listed and defined as follows:

Y - The reported pesticide/PCB result is below the adjusted contract reporting limit.

X - The reported result was derived from instrument response outside the calibration range.

All of the samples required sulfur clean-up in preparation for pesticide/PCB analysis. The associated method blanks were taken through the clean-up procedure as well.

A twenty fold dilution was required in the pesticide/PCB analysis of sample 124989. A two fold dilution analysis was also performed. The results of both analyses are included in this submittal as requested. The twenty fold dilution analysis is identified with a "DL" suffix affixed to the sample number.

Several samples exhibited PCB's in sufficient concentration so as to interfere with the customary second column confirmation analysis specified in the method. As such, a third column confirmation analysis was performed by the laboratory to obtain more positive identification of potentially masked analytes. A third column confirmation run was performed using an RTX-1701 column in the pesticide/PCB analysis of sample 124981 (BZMW-5). The third column analysis was necessary to confirm the presence of beta-BHC due to PCB interferences observed on the RTX-5 column. A third column confirmation determination for alpha-BHC was also required for samples 124989, 124989DL, 124993, and 125053.

The results of pesticide/PCB analyses on samples 124983, 124989, 124993, and 125053 indicated that PCB's were present in high enough concentration to warrant GC/MS confirmation. The matter was communicated to you on January 10, 1991 when it was decided that the PCB's and alpha-BHC (in sample 124989) in these samples required confirmation if possible. Subsequent GC/MS analysis confirmed the presence of PCB's in all four samples as well as alpha-BHC in sample 124989. The GC/MS confirmation results can be found in the Pesticide Supportive Documentation section of this submittal.

The matrix spike recoveries for antimony, arsenic, barium, cadmium, lead, nickel, selenium, silver, and thallium were out of the specified tolerances in the matrix spike analysis of sample

125330MS. Additionally, the result for barium did not correspond well in the replicate analysis of sample 125330. The analytical results have been qualified accordingly.

Please note the addition of page 000002A as part of this case submittal.

Sincerely,

Joseph K. Comeau, Ph.D.
Vice President
Chemistry Division

JKC/amp

Enclosure

89133B23JAN91

000002A

aquatec INC.. ENVIRONMENTAL SERVICES

75 GREEN MOUNTAIN DRIVE, SOUTH BURLINGTON, VERMONT 05403, TELEPHONE (802) 658-1074

January 18, 1991

William Ahlert, Ph.D.
Lawler, Matusky & Skelly Engineers
One Blue Hill Plaza
P.O. Box 1509
Pearl River, NY 10965

Re: Aquatec Project No. 89133
Analytical Services Subcontract to LMS/NYSDEC
Contract No. D001918, Amendment 3
Case No. 24232; SDG No. 125244
ETR No's. 24232 and 24255

Dear Dr. Ahlert:

Enclosed are the results of analyses performed on Brzezinski site water samples received from LMS.

The samples were received intact on December 6 and 7, 1990. Laboratory numbers were assigned to the samples and were designated as follows:

Aquatec ETR No.	LMS Sample I.D.	Aquatec Lab No.	Sample Matrix
24232	Field Blank	125244	Water
	GWBZ-1	125245	Water
	GWBZ-2	125246	Water
	GWBZ-2	125247	Filtrate
	GWBZ-3	125248	Water
	GWBZ-4	125249	Water
24255	Trip Blank	125321	Water
	GWBZ-5	125322	Water
	SWBZ-1B	125323	Water
	SWBZ-2B	125324	Water

Additional quantities of SWBZ-1B were submitted to the laboratory for quality control (QC) analyses. Subsamples of SWBZ-1B used for QC analyses were logged into the laboratory for the purpose of internal sample tracking. These QC samples were assigned the laboratory numbers 125323MS (matrix spike), 125323MD (matrix spike duplicate), and 125323DP (duplicate).

The volatile organic analyses performed on samples GWBZ-1 and GWBZ-2 yielded a surrogate recovery for toluene-d_8 of 87% in both samples. These recoveries fell just outside of the toluene-d_8

acceptable recovery range of 88-110 percent. There were no TCL volatile organic compounds observed in the chromatographic vicinity of toluene-d_8 in the analysis of GWBZ-1, whereas trace amounts of toluene, ethylbenzene, and xylenes were detected in the analysis of GWBZ-2. The matter was communicated to you on December 13, 1990 when it was decided that a reanalysis of the samples was not required since the surrogate recoveries were just out of the acceptable range and the samples were, for the most part, clean with respect to volatile organics. Therefore, the results of these analyses have been formalized for this submittal.

An additional qualifier has been used in reporting the pesticide/PCB results. It is listed and defined as follows:

Y - The reported pesticide/PCB result is below the adjusted contract reporting limit.

A trace amount (less than one half of the detection limit) of what appears to be Aroclor 1254 was detected in sample GWBZ-1. Because of the very low concentration the result was not recorded on the Form I summary.

The recovery of silver was out of the specified tolerances in the matrix spike analysis of sample SWBZ-1B (Lab No. 125323MS). Additionally, the results for mercury and zinc did not correspond well in the replicate analysis of SWBZ-1B. The analytical results have been qualified accordingly.

Sincerely,

Joseph K. Comeau, Ph.D.
Vice President
Chemistry Division

JKC/amp

Enclosure

89133B18JAN91

Data Validation Services

P. O. Box 54
Ripurius, N. Y. 12862
Phone 518-494-3509

RECEIVED
FEB 15 1991
LMS ENGINEERS

TO: Lawler, Matusky & Skelly, Engineers

FROM: Judy Harry, Data Validation Services Judy Harry

DATE: 2-13-91

RE: Data Review of Brzezinski Site Data Packages
LMS/Aquatec Project No. 89133
Case Nos. 24147 and 24232
SDG Nos. 124981 and 125244

Review of the data produced by Aquatec for samples originating at the Brzezinski Site has been completed. The TCL analyses of 8 water and 9 soil samples were validated for compliance with the EPA SOW 787 protocol.

In summary, all analyses were compliant except for the following sample fractions:

1. VOA analyses of GWBZ-1 and GWBZ-2 produced d8-toluene surrogate recoveries of 87%, just low of the allowable limit of 88%. The recoveries of BFB surrogate, calculated against the same internal standard as d8-toluene, were well within acceptable range. This matter was communicated to LMS. Because the target compounds that elute in the retention time range of d8-toluene were detected only at trace levels in these samples, it was decided that a repeat analysis (which was likely to be beyond holding time) would not be necessary.

2. The retention time of PCB/Pest surrogate DBC in the primary analysis of sample GWBZ-3 was just outside the allowable range. The %D was 0.4%, above the limit of 0.3%D for capillary analysis. This variance did not interfer with sample evaluation, as the retention time drift occurred early in the analysis sequence and quantitative standards in the primary analysis showed a retention time %D of 0.3%. The surrogate retention time in the confirmation analysis for sample GWBZ-3 was well within range.

Other comments and concerns not affecting sample compliancy are outlined below:

VOA ANALYSIS

The volatile data were well documented. All holding times were met, and all sample and standard raw data were present except for the ethylbenzene spectrum for soil sample BZTB-1 (detected at "2 J" ug/kg). With the exception of the two aqueous samples discussed above, all surrogate and matrix spike recoveries were within range. All tunes were present and compliant, and initial and continuing standards met all required criteria.

One of the continuing calibration standards utilized in the analysis of soil samples had a calibration factor %D of 41% for benzene. Three samples with trace levels of benzene below the contract required detection limit were processed under this standard. Because the benzene reported in those samples (BZTB-1, BZTB-2, and BZTB-3) is already flagged as estimated, the results are not affected.

BNA ANALYSIS

The TCL BNA analyses were complete and well produced, as were the PCB confirmation analyses included in the soil data package. The surrogate recoveries were all within required range. Only one matrix spike recovery (pentachlorophenol in the aqueous spike) was out of recommended range. All method blanks and tunes were compliant.

Several of the calibration factor %Ds on continuing calibration standards were quite high (many exceeding 40%D). These analyses are compliant, and do not affect sample results as these outliers were not target compounds detected in the samples.

PCB/PEST ANALYSIS

The PCB/Pest analyses were well conducted, utilizing 2 columns to ensure accurate and complete identification of target compounds. All surrogate, spike recovery, and standard criteria were within range, correctly documented, and compliant. Note earlier discussion concerning the surrogate retention time of sample GWB2-3.

METALS/CN

All required metal and CN documentation was included in the data packages, and correctly generated. The aqueous spike recovered well, and the aqueous replicate correlations were quite good. The soil spike recoveries were very poor, with 9 values outside preferred limits. Most notably, barium and selenium did not recover at all, and antimony and thallium recovered below 30%. The post-digest spike recoveries of these elements were above 78%. The soil duplicate analyses were within +-20% except for barium, with values of 430 and 113 mg/kg.

GFAA lead analyses were performed using the method of standard additions.

Eptox analyses were conducted on some soil samples, and are well documented in the data package.

CONVENTIONALS

Reactivity, corrosivity, conductivity, TSS, and TDS were performed, well documented, and correctly transcribed to the reporting forms.

COMPLIANCE SUMMARY

Site: Brzezinski Site
Project No. LMS/Aquatec No. 89133

Case Nos. 24147 and 24232
SDG Nos. 124981 and 125244

Protocol: EPA SOW 787 .

Date Rc'd	Sample #	Matrix	VOA	BNA	PCB/ Pest	CN	Metals	EPMt	EPDg	Noncomp
11-30-90	BZTB-1	Soil	OK	OK	OK	OK	OK	OK	NR	
11-30-90	BZTB-2	Soil	OK	OK	OK	OK	OK	OK	NR	
11-30-90	BZTB-3	Soil	OK	OK	OK	OK	OK	OK	NR	
12-01-90	BZTB-4	Soil	OK	OK	OK	OK	OK	OK	NR	
12-07-90	SDBZ-1B	Soil	OK	OK	OK	OK	OK	NR	NR	
12-07-90	SDBZ-2B	Soil	OK	OK	OK	OK	OK	NR	NR	
12-07-90	SSBZ-10	Soil	OK	OK	OK	OK	OK	NR	NR	
11-29-90	BZMW-4	Soil	OK	OK	OK	OK	OK	OK	NR	
11-29-90	BZMW-5	Soil	OK	OK	OK	OK	OK	OK	NR	
12-06-90	GWBZ-1	Aqueous	NO	OK	OK	OK	OK	NR	NR	1
12-06-90	GWBZ-2	Aqueous	NO	OK	OK	OK	OK	NR	NR	1
12-06-90	GWBZ-3	Aqueous	OK	OK	NO	OK	OK	NR	NR	2
12-06-90	GWBZ-4	Aqueous	OK	OK	OK	OK	OK	NR	NR	
12-07-90	GWBZ-5	Aqueous	OK	OK	OK	OK	OK	NR	NR	
12-07-90	SWBZ-1B	Aqueous	OK	OK	OK	OK	OK	NR	NR	
12-07-90	SWBZ-2B	Aqueous	OK	OK	OK	OK	OK	NR	NR	

1. VOA surrogate recovery of d8-toluene is just low of limit. Sample not rerun, as discussed with LMS. Does not affect sample results.
2. Retention time of PCB/Pest surrogate in primary analysis just out of allowable limit. Does not affect sample results.

DATA USABILITY REPORT

Brzezinski Property

NYSDEC I.D. No. 932206

The final report from Data Validation Services concluded that the analyses for the samples collected from the Brzezinski site are compliant with the exception of two VOC and one PCB/pesticide analysis. The d8-toluene surrogate recovery was just below the required limit for two groundwater samples, GWBZ-1 and GWBZ-2. The retention time for the dibutylchloridinate (DBC) surrogate was just outside the allowable range during the PCB/pesticide analysis of GWBZ-3. Aquatec contacted LMS regarding the low d8-toluene recovery. Repeat VOC analyses for GWBZ-1 and GWBZ-2 (normally required for surrogates that do not recover within established limits) were not performed because the internal standard (bromofluorobenzene) was well within the required range. As the d8-toluene recovery was just below the specified limits, the target compounds that elute in the retention range of d8-toluene would not have been affected significantly. The repeat VOC analyses for these samples would likely have been outside the retention time. The retention time variance for the DBC surrogate was early in the analysis and did not affect the sample evaluation.

The validator discovered some minor problems in the data package that did not affect the compliancy of the data. Three soil samples (TBBZ-1, -2, and -3) that were analyzed when the benzene continuing calibration standard recovered with a 41% D showed trace levels of benzene. The reported concentrations were qualified as estimated because they were below the contract- required detection limit. Actual benzene concentrations in these soil samples may vary from the reported value due to the high %D associated with the benzene continuing calibration. As the reported values were qualified as estimated concentrations, no further action was required for these samples.

The soil spike recoveries were extremely poor, having nine recoveries outside the recommended values. Barium and selenium did not recover at all, and antimony and thallium recovered below 30%. The post-digestion spike for the metals were all above 78%, indicating that matrix interferences, not instrumentation, may be responsible for the low spike

recoveries. The metals concentration reported should therefore be interpreted as a representative range because the exact concentrations present in the soil samples may be masked by matrix interferences.

LMS has determined all the data to be usable as submitted without qualification.