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TECHNICAL MEMORANDUM
JUNE 1997 GROUNDWATER SAMPLING RESULTS REPORT

AMERICAN CHEMICAL SERVICE, INC.
NPL SITE
GRIFFITH, INDIANA

Montgomery Watson File No. 1252042

Prepared For:

ACS RD/RA Executive Committee

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October 1997

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Prepared For:

ACS RD/RA Executive Committee

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EXECUTIVE SUMMARY

This Technical Memorandum summarizes the third quarter sampling results associated with the June 1997 groundwater monitoring at the American Chemical Service, Inc. (ACS) NPL site in Griffith, Indiana. Sampling results from upper and lower aquifer monitoring wells are presented in this technical memorandum. Monitoring Wells were sampled and analyzed for full scan Target Compound List (TCL) organic and Target Analyte List (TAL) inorganic analyses in accordance with the approved sampling plan.

Site Hydrogeology

Water levels were measured in upper and lower aquifer wells, piezometers and staff gauges on June 23, 1997. The direction of horizontal groundwater flow in the upper aquifer has been modified by the installation of the Perimeter Groundwater Collection System (PGCS) and the barrier wall. The groundwater flow east of the ACS facility contacts the barrier wall and is diverted to the north and to the south. As groundwater is diverted to the north, the minor groundwater flow divide previously evident between MW11 and SG10 and between P9 and P58 is eliminated. The potentiometric surface to the northwest of the Site (including the wetland area) is relatively flat due to the effects of the PGCS trench, barrier wall, and injection wells. Within the Griffith Landfill, a low indicates the activity of the leachate collection system (LCS).

Horizontal groundwater flow in the lower aquifer is northward with a hydraulic gradient of 0.00044. This gradient is historically consistent with previous lower aquifer data presented in the March 1997 Groundwater Report and earlier technical memoranda.

Vertical gradients were calculated across three aquifer horizons: 1) the upper aquifer in the wetland area, 2) the upper and lower aquifers, and 3) the lower aquifer. Vertical gradients in the wetland area were generally very low, showing little difference in head between upper and lower portions of the upper aquifer. The vertical gradients measured are consistent with a typical wetland where shallow groundwater is in close contact with surface water. Strong downward vertical gradients were measured between the upper and lower aquifer ranging between -0.36 between MW17 and MW28 to -1.27 between P27 and MW9. Vertical gradients measured in the lower aquifer were variable; six of the calculated gradients were downward, one was upward, and ten were within the margin of potential error in water level measurement. This variability indicates that there is not an overall trend to the vertical gradient data in the lower aquifer.

Analytical Results – Upper Aquifer

The upper aquifer was divided into three regions for analysis: the north area of concern (NAOC), south area of concern (SAOC), and the Griffith Landfill. The NAOC extends northward from the north end of the site near the On-Site Containment Area, and the SAOC extends southeasterly from a source area near the Kapica-Pazmey building. Figure 1, which shows changes to the groundwater monitoring network, includes the location of the Griffith Landfill with the NAOC directly to the north of the Griffith Landfill and the SAOC directly south of the barrier wall.

VOCs were detected groundwater samples collected from the upper aquifer monitoring wells in the NAOC, SAOC, and the Griffith Landfill. VOCs were either not detected or were detected at low concentration in the upgradient, edge, and downgradient NAOC wells. Increased concentrations of chloroethane and benzene in the three interior wells of the NAOC in the upper aquifer (MW13, MW48, and MW49) were measured. These concentration increases may be related to changes in the shallow groundwater flow regime due to the remedial action construction activities. This compound was not detected in the previous quarterly events. For the most part, contaminant concentration remained consistent in the NAOC.

In the SAOC, vinyl chloride was detected above the ROD remediation level in MW6 (3 ug/L). This compound was not detected in the previous quarterly events. For the most part, contaminant concentration remained consistent in the SAOC. Due to changes in the groundwater flow regime, the Griffith Landfill wells exhibited no consistent trend in VOC data. Select SVOCs and inorganics exceeded ROD remediation levels in the upper aquifer. However, for the most part, these respective concentrations were consistent with previous quarterly sampling events.

Analytical Results - Lower Aquifer

In the lower aquifer, benzene and vinyl chloride were detected above their ROD remediation levels in MW10C and MW9, respectively. There were no other VOC concentrations greater than ROD remediation levels. Select SVOCs and inorganics exceeded ROD remediation levels in the lower aquifer. However, for the most part, these respective concentrations were consistent with previous quarterly sampling events.

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1.0 INTRODUCTION

As required by the United States Environmental Protection Agency (U.S. EPA), quarterly groundwater monitoring was conducted at the American Chemical Service, Inc. (ACS) NPL Site in Griffith, Indiana for the upper and lower aquifers. This Technical Memorandum summarizes the third consecutive quarterly groundwater monitoring activities conducted at the end of June 1997. Previous sampling was summarized for November 1996 and March 1997. The fourth quarter sampling is scheduled to occur in September 1997. The June 1997 groundwater monitoring event consisted of the following activities:

- Water levels were measured in upper and lower aquifer wells, piezometers and staff gauges on June 23, 1997.

- Groundwater samples were collected from 24 monitoring wells screened in the upper aquifer and 23 monitoring wells screened in the lower aquifer during the week of June 24 - July 1, 1997 and analyzed for Target Compound List (TCL) and Target Analyte List (TAL) parameters.

The objectives of the quarterly groundwater monitoring activities, changes to the monitoring network, and the procedures followed during the activities are presented in the following subsections. Hydrogeological and analytical data collected during the June 1997 groundwater monitoring event are presented in Sections 2 and 3, respectively.

1.1 OBJECTIVES

1.1.1 Upper Aquifer

As defined in the October 1996 Phase 2 Upper Aquifer Technical Memorandum (revised June 1997), the objectives of quarterly monitoring activities of the upper aquifer are to:

1. Monitor groundwater quality at the boundaries of the known extent of contamination to determine whether the contaminant plume in the upper aquifer is remaining constant or expanding.

2. Measure water levels in the upper aquifer to determine how remedial actions will affect groundwater flow patterns at the site.

3. Monitor groundwater quality in the plume interior to determine how contaminant concentrations change in response to remedial actions.

1.1.2 Lower Aquifer

As established in the September 1996 Lower Aquifer Investigation Report (revised June 1997), the objectives of quarterly monitoring activities of the lower aquifer are to:

1. Verify the current northerly horizontal groundwater gradient;

2. Monitor the effect, if any, of remedial actions on groundwater flow patterns; and

3. Monitor for the presence of contaminants that may migrate from the upper aquifer to the lower aquifer.

1.2 CHANGES TO THE GROUNDWATER MONITORING NETWORK

There have been no changes to the groundwater monitoring network between the March 1997 monitoring event and the June 1997 monitoring event except as noted in the following subsections.

1.2.1 Additions to the Groundwater Monitoring Network

Concurrent to the June 1997 groundwater monitoring event, the perimeter groundwater containment system (PGCS) and the barrier wall were nearing completion. These remedial systems and their impact on the upper aquifer groundwater flow regime are being monitored by a series of recently installed piezometers. These piezometers have been added to the quarterly groundwater elevation monitoring and are shown on Figure 1.

In order to monitor the impact of the PGCS on the surrounding groundwater flow system, four sets of three piezometers were installed in and around the PGCS trench. Each piezometer set consists of one piezometer installed in the middle of the PGCS trench with the remaining two piezometers installed ten feet from the first piezometer on either side of the trench. These piezometers were installed June 20, 1997 in accordance with the U.S. EPA approved SOP.

In order to monitor the effectiveness of the barrier wall, five sets of paired piezometers were installed. The piezometer pairs are as close together as possible with one piezometer just outside of the barrier wall and the other just inside the barrier wall. These piezometer sets will allow head differentials between groundwater inside and outside the barrier wall to be calculated. These head differentials will help demonstrate the effectiveness of the barrier wall. These piezometers were also installed June 20, 1997.

1.2.2 Deletions to the Groundwater Monitoring Network

Two wells, fifteen piezometers, and two staff gauges were excluded from the June 1997 groundwater monitoring activities because they could not be found or were destroyed by construction activities (Figure 1). The groundwater elevation data from three wells and two piezometers were reported but are considered anomalous. These data were not used to interpret the potentiometric surface of groundwater.

Monitoring wells MW35 and MW16, both of which are screened in the upper aquifer, were not sampled during this quarter's activities. Monitoring well MW35, located on the Griffith Landfill property, was damaged by a snowplow and could not be sampled. This well is scheduled to be abandoned during the upcoming quarter. This well will not be replaced as agreed by U.S. EPA. Monitoring well MW16 was destroyed during the construction of the barrier wall. Because of the proximity of this well to M-4S, which is sampled as part of the groundwater monitoring activities, there are currently no plans to replace MW16. Consequently, monitoring wells MW35 and MW16 are being deleted from the quarterly groundwater monitoring activities.

Groundwater elevations for upper aquifer monitoring wells MW18, AM-05, Red Well, and W-1 were calculated, but were considered anomalous and, therefore, were not used to interpret the potentiometric surface of groundwater. Monitoring well MW18 has consistently been one foot higher in elevation than the surrounding groundwater wells. This well is scheduled to be resurveyed prior to the next monitoring event. Monitoring wells AM-05, Red Well, and W-1 were installed by the facility owner prior to the remedial investigation. Uncertainty as to the age and origin of these monitoring wells make data from these wells suspect.

Groundwater elevations could not be calculated for a number of piezometers. Some attrition in the number of piezometers is expected over time because of the fragility of piezometers. In addition, a number of piezometers that could not be found were lost due to the construction of the barrier wall and PGCS trench and injection systems. Groundwater elevation data were not collected at the following piezometers;

P1	P2	P4	P6
P19	P20	P21	P30
P37	P38	P41	P50
P51	P39	EW1	

Ten of these piezometers were located inside the barrier wall, and therefore do not provide information necessary in evaluating the groundwater flow system. It should be noted that 22 piezometers were installed at the facility this quarter. Groundwater elevations measured at these and the remaining 51 piezometers and 24 monitoring wells adequately define the potentiometric surface of the upper aquifer.

What appear to be anomalous groundwater elevations were calculated for two piezometers, P8 and P18. Groundwater measured at piezometer P8 was almost ten feet lower in elevation than piezometer P7 which is located approximately 200 feet to the southwest of P8. The difference in elevation is probably due to an incorrect water level measurement taken on June 23, 1997. Piezometer P18 is located inside the Griffith Landfill and showed groundwater elevations almost eight feet higher than P17 which is located approximately 250 feet to the south of P18. Historically, groundwater elevations at this piezometer have consistently been eight to ten feet higher than those shown at other landfill locations. This elevation is most likely the result of perched leachate in the landfill and is not reflective of

groundwater conditions in the area. Data generated for these piezometers were not used for establishing potentiometric surfaces.

Staff gauges SG4, located in the ditch to the far west of the site, and SG9, located at the terminal end of a ditch that drained the area near the railroad track, could not be located. Staff gauge SG9 was most likely lost due to construction of the barrier wall, while SG4 was most likely lost to either erosion or vandalism. There are no plans to replace staff gauge SG9. Staff gauge SG4 will be replaced prior to the next round of water level measurements planned for September 22, 1997.

1.3 PROCEDURES

Quarterly groundwater monitoring activities were conducted in accordance with U.S. EPA-approved Specific Operating Procedures (SOPs), the draft Quality Assurance Project Plan (QAPP), and U.S. EPA comments regarding the draft QAPP.

1.3.1 Water Levels

To determine groundwater flow directions in the upper and lower aquifers and vertical gradients both within and between the aquifers, water level measurements were taken at upper and lower aquifer wells, piezometers and at surface water staff gauges on June 23, 1997.

1.3.2 Groundwater Sampling

Monitoring well locations and sampling parameters for the June 1997 upper aquifer monitoring activities are defined in the Phase II Upper Aquifer Investigation Technical Memorandum, revised June 1997. Well locations and sampling parameters for the June 1997 lower aquifer monitoring activities are defined in the Lower Aquifer Investigation Report, revised June 1997.

Prior to sampling, monitoring wells were purged using low-flow methods in accordance with the approved Monitoring Well Sampling SOP for the Upper Aquifer Investigation (revision: March 21, 1997). Field parameters for pH, specific conductivity, temperature, and turbidity were measured and recorded during well purging activities (Table 1).

Selected upper and lower aquifer monitoring wells were sampled between June 24 and 30, 1997 and analyzed for TCL volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), pesticides, and polychlorinated biphenyls (PCBs) and TAL inorganic parameters. Monitoring well sampling activities were performed in general accordance with the approved Monitoring Well Sampling SOP for the Upper Aquifer Investigation (revision: March 21, 1997).

1.3.3 Surveying

The new piezometers at the Site were surveyed by Area Survey of Orland Park, Illinois. Survey information, including ground surface and casing elevations for the new piezometers, was used to determine the groundwater elevations.

2.0 SITE HYDROGEOLOGY

Based on the results of groundwater and surface water elevation measurements, potentiometric maps have been developed for the upper and lower aquifers and horizontal gradients were calculated for the lower aquifer. In addition, vertical gradients were calculated across three aquifer horizons: 1) the upper aquifer in the wetland area, 2) the lower aquifer, and 3) between the upper and lower aquifers. The general flow directions in the upper and lower aquifers, the effect of remedial actions on these flow patterns, the calculated horizontal gradient for the lower aquifer, and the calculated vertical gradients are discussed in the following sections.

2.1 UPPER AQUIFER

The potentiometric map for the upper aquifer, as determined from water levels measured on June 23, 1997, is shown on Figure 2. As observed in previous investigations and monitoring events, the direction of shallow groundwater flow in the upper aquifer is generally to the west in the area west of Colfax Avenue, and southeast in the area southeast of the intersection of Colfax Avenue and Reder Road. However, groundwater flow in the upper aquifer has been modified by the remedial activities. These remedial activities include the installation of the PGCS and the installation of the barrier wall.

The shallow groundwater flow outside the barrier wall to the west and northwest of the ACS facility has been significantly impacted by the barrier wall, the PGCS, and dewatering activities at the Griffith Landfill. As observed in previous monitoring events, groundwater flow east of the ACS facility is in a westerly direction. This westerly flowing groundwater now contacts the barrier wall and is diverted to the north and to the south.

The groundwater diverted to the north by the barrier wall appears to have eliminated the minor groundwater flow divide that was sometimes evident between MW11 and SG10 and between P9 and P58. In the northeast portion of the Site near Colfax Avenue, groundwater flow changes from a northerly direction to the west until it reaches a drainage ditch. The drainage ditch appears to be a discharge area for this portion of the upper aquifer.

The potentiometric surface of groundwater to the northwest of the Site including the wetland area is relatively flat with no predominant groundwater flow direction. The installation of the barrier wall, PGCS trench, and injection wells appears to have eliminated what has historically been a predominantly westerly flow direction in this area.

Groundwater contours in the upper aquifer within the area defined by the Griffith Landfill, located west of the ACS Site, is similar to those provided in previous reports. A groundwater low is centered around the leachate collection system (LCS) and the highest leachate levels (except for those measured at piezometer P18 which, as previously described, are believed to be anomalous) are observed near piezometer P16. Groundwater

to the northwest of piezometer P16 flows north towards the LCS and pond. Groundwater to the southeast of piezometer P16 joins with groundwater from the east is diverted to the south by the barrier wall near the intersection of Colfax Avenue and Reder Road, and flows in a southeasterly direction.

As it was designed to do, the roughly oval shaped barrier wall is preventing hydraulic communication between groundwater inside and outside the enclosure. Within the barrier wall, the groundwater elevations on June 23, 1997 were approximately 636 feet above mean sea level (amsl) at all locations.

Depth to water measurements were recorded and elevations were calculated at each of the paired piezometers arrayed across the barrier wall (Table 2). At every nest, the piezometer located inside the barrier wall had a higher water level elevation than its counterpart outside the barrier wall. The largest water level elevation difference (5.36 feet) between piezometers occurred at P97/P98, where water levels were calculated to be 631.48 feet amsl and 636.84 feet amsl, respectively. The smallest difference in water level elevation, 1.65 feet, occurred at piezometer nest P107/P108. These observations are not unexpected. The barrier well is acting as a dam in the historic flow path from east to west in the upper aquifer. Groundwater is mounding slightly on the east (upgradient) side and dropping on the west (downgradient) side of the barrier wall.

2.2 LOWER AQUIFER

The potentiometric surface in the lower aquifer, shown in Figure 3, was determined by evaluating water level measurements of monitoring wells installed at the top of the lower aquifer. Based on this analysis, the direction of horizontal groundwater flow in the lower aquifer is essentially northward, which is consistent with data presented in the March 1997 Monitoring Report, and the 1996 Groundwater Sampling Results Report. It does not appear that remedial actions are significantly impacting groundwater flow in the lower aquifer.

The horizontal hydraulic gradient in the lower aquifer was determined by calculating the difference in head between MW22, located in the southern portion of the Site, and MW10, located at the northern Site boundary. This difference, 1.37 feet on June 23, 1997, was then divided by the lateral distance between the two wells (2,850 feet). Based on the above calculations, the horizontal hydraulic gradient in the lower aquifer was calculated to be 0.00044. As illustrated in the following table, the June 23, 1997 lower aquifer horizontal hydraulic gradient was generally consistent with lower aquifer horizontal gradients previously calculated for the Site.

Report of Hydraulic Gradient in Lower Aquifer	Horizontal Hydraulic Gradient
Remedial Investigation Report (June 1991)	0.0006
Technical Memorandum (October 1995)	0.00041
Lower Aquifer Investigation Technical Memorandum (September 1996)	0.00047
Groundwater Monitoring Results Report (August 27, 1996)	0.00047
Groundwater Monitoring Results Report (November, 1996)	0.00049
March 1997 Groundwater Samplings Results Report (March, 1997)	0.00040
June 1997 Groundwater Samplings Results Report (June, 1997)	0.00044

2.3 VERTICAL GRADIENTS

Vertical gradients were determined across three aquifer horizons: 1) the upper aquifer in the wetland area, 2) between the upper and lower aquifers, and 3) the lower aquifer. The vertical gradients were calculated using the groundwater elevation levels found in Table 2.

2.3.1 Vertical Gradients in Wetlands

A summary of vertical hydraulic gradients measured in nested piezometers in the wetland area is presented in Table 3. Vertical gradients were calculated by dividing the difference in head between nested piezometers by the distance between the screen midpoints. Vertical gradients in the wetland area were generally very low, showing little difference in head between the upper and lower portions of the upper aquifer. Vertical gradients were upward at P66/P67 (0.013), P68/P69 (0.002) and P70/P71 (0.042) and slightly downward at P64/P65 (-0.062).

The vertical gradients measured in the wetland area are consistent with a typical wetland where shallow groundwater is in close contact with surface water. Water levels fluctuate seasonally as shallow groundwater periodically recharges and discharges from the wetland area. As shown in the following table, vertical gradients measured in wetland area piezometers are variable, but generally upward (positive) as expected in a wetland area.

Piezometer Nest	August 1996	November 1996	March 1997	June 1997
P64/P65	0.009	0.000	0.016	-0.062
P66/P67	0.005	0.005	-0.003	0.013
P68/P69	0.000	0.000	0.010	0.002
P70/P71	-0.02	0.006	0.030	0.042

2.3.2 Vertical Gradients Between the Upper and Lower Aquifers

Vertical gradients measured between wells screened in the upper aquifer and lower aquifer are presented in Table 4. Vertical gradients were calculated by dividing the difference in head between the upper and lower aquifer wells by the thickness of the clay confining layer between the two wells.

Strong downward vertical gradients were calculated at three of the four nested locations. Downward vertical gradients ranged from -0.36 measured between MW17 and MW28 to -1.27 between P27 and MW9. One upward gradient equal to 0.09 was measured between P8 and MW7; however P8 is believed to be an anomalous measurement. The measurement at P8 was therefore disregarded.

2.3.3 Vertical Gradients in the Lower Aquifer

Vertical gradients measured between nested wells screened within the lower aquifer during the June 1997 water level monitoring event are presented in Table 5. Vertical gradients were calculated by dividing the difference in head between nested wells by the distance between the bottom of the upper screen and the top of the lower screen at each well location. Where the difference in head was nonexistent, a vertical gradient range was estimated by dividing the margin of potential error in the water level measurement (0.01) by the vertical separation between the nested well screens.

The largest downward vertical gradient was observed at the MW51/MW10/MW30/MW33 well cluster, where downward gradient of -0.082 was calculated between MW51 and MW10. The largest upward gradient was observed at the MW29/MW34/MW9 well nest, where an upward gradient of 0.0013 was calculated between wells MW29 and MW34. Seven of the calculated gradients were downward, two were upward, and nine were within the margin of potential error in the water level measurement. This variability indicates that there is not an overall trend to the vertical gradient data in the lower aquifer. Variability over time will be evaluated after the next sampling event.

3.0 JUNE 1997 QUARTERLY MONITORING WELL SAMPLING RESULTS

The analytical results of the June 1997 quarterly sampling were evaluated for evidence of contaminant migration, changes in contaminant concentrations over time and in response to remedial actions, and the presence of contaminants in the lower aquifer. Groundwater samples were analyzed for TCL and TAL parameters. Laboratory analytical reports for TCL parameters (including tentatively identified compounds (TICs) and TAL parameters are included in Appendices A and B, respectively, for the upper aquifer and Appendices C and D, respectively, for the lower aquifer. Data validation and QA/QC data summaries are included in Appendix E. Analytical results for groundwater samples collected concurrently with the investigatory samples (i.e., split samples) are included in Appendix F.

3.1 UPPER AQUIFER

Upper aquifer wells were sampled between June 24 and July 1, 1997. Table 6 presents a summary of TCL and TAL analytes detected in groundwater samples collected from upper aquifer monitoring wells during the June 1997 sampling event.

3.1.1 VOCs

Figure 4 shows the location of VOC detections in the upper aquifer on a map of the Site. The ACS Site currently has two areas of VOC contamination; one north of the ACS facility and the other southeast of the site originating in the Off-Site Containment Area and the Kapica-Pazney Area. These areas of contamination are confined to the upper sand aquifer and are comprised primarily of chloroethane and benzene.

The discussion of the VOC results is organized into three parts: the north area of concern (NAOC), the south area of concern (SAOC), and the Griffith Landfill, which covers a large area to the southwest of the Site. As expected, the VOC concentrations do not yet show a consistent decrease in most wells, since the barrier wall and the PGCS were still being constructed during the recent quarterly period. There were no exceedances of VOC remediation levels established in the Record of Decision (ROD) outside these areas of concern

North Area of Concern. The NAOC is monitored through a series of groundwater wells located hydraulically upgradient of the NAOC, within the NAOC, at the edge of the NAOC, and hydraulically downgradient from the edge of the NAOC. These wells are as follows:

Upgradient (east/northeast of Site)	Interior (north of Site)	Edge (north of Site)	Downgradient (north of Site)
MW11	MW13	MW39	MW37
MW12	MW48		MW38
MW40	MW49		

As with previous sampling events, VOCs were either not detected or were detected at low concentrations in the upgradient, edge, and downgradient NAOC wells. VOCs were detected in groundwater collected from sampling locations MW11, MW12, and MW39. The concentrations of these VOCs are below or at the ROD remediation levels.

Many of the VOC concentrations measured in upgradient, edge, and downgradient NAOC wells were qualified as estimated because the concentrations were below the SQL (i.e., the measured concentration is below the linear calibration range). Because of the uncertainty associated with the quantification of concentrations below the SQL, qualitative analysis of these results, including trend evaluation, is problematic. At these concentrations, any interpretation of these results should be qualitative; that is the contaminants are or are not present. While additional sampling events will be used to continue to evaluate the boundaries of the contaminated area, the concentrations, which have been consistently below SQLs, do indicate that the area of contamination is not significantly migrating to the north or east at this time.

Chloroethane and benzene continue to be detected in the three interior wells in the upper aquifer, with the concentrations within the range of previous detections for MW48 and MW49. However, as shown in the following table, the concentrations at MW13 have increased over the previous two sampling events.

Monitoring Well MW13 (Upper Aquifer)

Sampling Date	Chloroethane	Benzene
November 1996	97 µg/L	6 µg/L
March 1997	330 µg/L	170 µg/L
June 1997	570 µg/L	610 µg/L

MW13 is located in the wetland area on the west side of the site and is downgradient of interior wells MW48 and MW49 in which the highest chloroethane and benzene concentrations have historically been detected in the NAOC. The PGCS operated intermittently between March and June 1997, and effects of the collection system may not yet be apparent.

South Area of Concern. The SAOC is monitored through a series of groundwater wells located hydraulically upgradient of the SAOC, within the SAOC, at the edge of the SAOC, and hydraulically downgradient from the edge of the SAOC. These wells are as follows:

Upgradient (south/east of Site)	Interior (south/southeast of Site)	Edge (south/southeast of Site)	Downgradient (southeast of Site)
MW15	MW6	MW19	MW42
MW18	MW45	MW44	MW43
		MW47	
		MW41	

Of the monitoring wells located upgradient, at the edge, and downgradient of the SAOC, monitoring wells MW15 and MW19 were the only locations from which VOCs were detected in groundwater. However, the concentrations of these VOCs were below ROD remediation levels. As in previous monitoring events, the VOC concentrations measured in the wells surrounding the SAOC indicate that contaminant migration is changing over time.

Groundwater VOC concentrations measured at the interior wells have either declined or stayed roughly unchanged over time. For example, as shown in the following tables, the concentrations of benzene and xylenes detected at interior well MW6 continue to decline over time, while concentrations of chloroethane and benzene have remained roughly unchanged in the interior well, MW45.

Monitoring Well MW6 (Upper Aquifer)

Sampling Date	Benzene	Total Xylenes
August 1989	780 J µg/L	170 µg/L
May 1990	1,500 J µg/L	210 µg/L
January 1995	3000 µg/L	3,900 µg/L
November 1996	320 µg/L	40 µg/L
March 1997	35 µg/L	ND
June 1997	39 µg/L	ND

Monitoring Well MW45 (Upper Aquifer)

Sampling Date	Chloroethane	Benzene
August 1996	82 J µg/L	530 µg/L
March 1997	230 µg/L	1100 µg/L
June 1997	120 µg/L	940 µg/L

Note
J qualifier indicates concentration is estimated.

Aside from the aforementioned benzene concentrations, the only other VOC detected in SAOC groundwater to exceed ROD remediation levels was vinyl chloride. Vinyl chloride was detected in MW6 at 3 µg/L, which is above the ROD remediation level of 0.25 µg/L, but below the SQL. As previously discussed, concentrations reported below the SQL should be interpreted qualitatively rather than quantitatively. Vinyl chloride was not detected during the two previous groundwater monitoring events.

Griffith Landfill. The Griffith Landfill covers the area primarily to the southwest of the off-site containment portion of the Site. Five upper aquifer wells were sampled within the landfill area: Griffith Landfill wells M-1S, M-3S, and M-4S and monitoring well MW15. VOCs were not detected in samples collected at M-1S or M-3S which are located along the eastern boundary of the landfill. As noted in the discussion of the SAOC, low concentrations of VOCs were detected in monitoring well MW15, located just within the estimated landfill boundary.

Select VOCs, shown in the following table with last quarter's analytical result, were detected in the sample collected at landfill well M-4S, located within the landfill area just east of the groundwater containment barrier wall.

Monitoring Well MW-4S (Upper Aquifer)

Sampling Date	1,2-Dichloroethene		Chloroethane		Benzene	
March 1997	ND	µg/L	1,300	µg/L	98	µg/L
June 1997	15	µg/L	1,300	µg/L	190	µg/L

3.1.2 SVOCs

The SVOC concentrations reported for the June 1997 groundwater monitoring activities were generally consistent with historical concentrations.

The ROD remediation levels for bis(2-chloroethyl)ether samples were exceeded at landfill well M-4S and monitoring well MW6. As shown in the following table, samples collected at Well M-4S, located within the Griffith Landfill area just west of the barrier wall, showed an increase in concentration between March and June 1997. Bis(2-chloroethyl)ether concentration also increased between the March and June 1997 sampling events in samples from monitoring well MW6, located in the interior of the SAOC just south of the barrier wall (see following table).

Monitoring Well M-4S (Upper Aquifer)

Sampling Date	Bis(2-chloroethyl)ether	
March 1997	45	µg/L
June 1997	71	µg/L

Monitoring Well MW6 (Upper Aquifer)

Sampling Date	Bis(2-chloroethyl)ether	
March 1997	7	µg/L
June 1997	30	µg/L

Concentrations of bis(2-ethylhexyl)phthalate, which were detected at low levels in samples from MW43 in March 1997, exceeded the ROD remediation level of 5.8 µg/L in monitoring wells MW6, MW11, MW19, and MW37. Bis(2-ethylhexyl)phthalate, a common laboratory contaminant that is used industrially as a plasticizer (i.e., plastic softener) and is prevalent in such products as PVC pipe, Syran Wrap, and Zip-Lock baggies, was not detected at these wells during the March 1997 and August 1996 sampling events. In addition, monitoring well MW11 is upgradient of, and MW37 is hydraulically isolated from (by the ditch that runs between the NAOC and MW37), the known contaminant source areas. For these reasons, the source of this compound is uncertain. Further monitoring may illuminate trends that will help to explain these detections.

Other SVOC compounds detected in groundwater samples collected from the upper aquifer monitoring wells included 1,2-dichlorobenzene, 2,2'-oxybis(1-chloropropane), isophorone,

2-methylnaphthalene, naphthalene, and phenols. Of these detections, none of the concentrations exceeded ROD remediation levels.

3.1.3 Pesticides and PCBs

Pesticides or PCBs were not detected in upper aquifer groundwater samples collected during the June 1997 quarterly sampling activities. As noted in the previous sampling report, pesticide detections have been erratic throughout historical groundwater monitoring activities at the Site.

3.1.4 Inorganic Parameters

As in the previous groundwater monitoring event, groundwater was sampled using low flow techniques. Low flow sampling techniques minimize turbidity thus reducing the impact particulates have on the analytical results for inorganics. Therefore, only total metals analyses were conducted in June 1997.

Remediation levels were established in the ROD for four metals: arsenic, beryllium, manganese and thallium. The inorganics, including arsenic, beryllium, manganese and thallium, are typically naturally-occurring with concentrations that can naturally vary greatly both temporally and spatially. Exceedances of the ROD remediation levels are discussed in the following paragraphs.

Arsenic concentrations measured in groundwater collected from ten upper aquifer monitoring wells exceeded the remediation level. These wells, MW6, MW14, MW15, MW19, MW42, MW43, MW44, MW45, MW48, and MW49, are located primarily within the limits of the two areas of concern delineated for VOCs. The locations and concentrations of arsenic that exceeded ROD remediation level are generally consistent with the March 1997 quarterly results.

The only beryllium detection in groundwater was reported for landfill well M-4S. The concentration of 1.2 µg/L exceeded the ROD remediation level of 0.02 µg/L. While beryllium has been occasionally detected in samples from other monitoring wells during the previous two sampling rounds, this is the first report of the analyte in this well.

Similar to the previous quarterly sampling results, concentrations of manganese, a naturally-occurring inorganic analyte, exceeded the ROD remediation level of 275 µg/L at many wells throughout the Site. However, none of the manganese concentrations measured in the upper aquifer exceeded the upper bound of the ROD remediation level (3,300 µg/L). Under reducing soil conditions which can occur in areas with organic contamination such as those at the Site, manganese is readily mobilized to groundwater from surrounding soil. Therefore, the presence of manganese may be a "symptom" of VOC contamination rather than a contaminant migrating from the waste source. Future results of groundwater monitoring may help explain these results.

The remediation level for thallium (0.2 µg/L) was exceeded in groundwater at only one monitoring well, MW19, located at the downgradient edge of the SAOC. The thallium

concentration of 3.7 µg/L measured during the June 1997 sampling event is consistent with previous analytical results.

Other naturally-occurring inorganic analytes detected in nearly all upper aquifer wells (i.e., analyte detected in > or = 75% of the wells) include aluminum, barium, calcium, cobalt, iron, magnesium, manganese, potassium, sodium, and vanadium. Inorganic compounds detected more sporadically (i.e., the actual range for "sporadic" analyte detections was <60% and >10% of the wells) include ammonia, arsenic, chromium, copper, lead, nickel, and zinc. The remaining analytes that were detected, antimony, beryllium, cyanide, selenium, and thallium, were reported in groundwater at less than 10% of the wells. The remaining TAL parameters were not detected in the upper aquifer monitoring well samples.

3.2 LOWER AQUIFER

The lower aquifer wells were sampled between June 24 and July 1, 1997. A summary of analytes detected in the lower aquifer monitoring well samples collected during the June 1997 quarter is presented in Table 7.

3.2.1 VOCs

Figure 5 summarizes the VOC detections in groundwater samples collected from lower aquifer monitoring wells. The ROD remediation levels for benzene and vinyl chloride were exceeded in the lower aquifer at two locations.

A vinyl chloride concentration of 7 µg/L was measured in groundwater collected from monitoring well MW10C which is greater than the ROD remediation level of 0.25 µg/L. Monitoring well MW10C is located northwest of the site below the interior of the NAOC. Vinyl chloride has not previously been reported in the lower aquifer.

Benzene exceeded the ROD remediation level of 5 µg/L for groundwater at monitoring well location MW9. The measured benzene concentration for this well, located west of the barrier wall, north of the railroad tracks, and east of the wetlands area, was reported as 280 µg/L. The following tabulation shows the concentration of benzene since monitoring began at the Site. An investigation specific to MW9 consisting of tract tests is currently being conducted.

VOC	May 1990	July 1990	Jan 1991	Jan 1995	Nov 1996	Mar 1997	Jun 1997
Benzene µg/L	<5	<5	<5	40	310	310	280

Other VOCs detected in the lower aquifer include chloroethane, chloroform, methylene chloride, 4-methyl-2-pentanone, and acetone. These compounds were detected below their respective ROD remediation levels.

3.2.2 SVOCs

The concentrations reported for SVOC analytes from the June 1997 groundwater monitoring activities were generally consistent with the concentrations reported in the March 1997 Groundwater Sampling Results Report.

Similar to the case of the VOC benzene in the lower aquifer, the ROD remediation levels for bis(2-chloroethyl)ether in groundwater were exceeded at monitoring well MW9. The reported concentration of 39 µg/L is consistent with previous bis(2-chloroethyl)ether analytical results for monitoring well MW9.

Concentrations of bis(2-ethylhexyl)phthalate exceeded the ROD remediation level of 5.8 µg/L in monitoring wells MW22, MW28, MW36, MW53, and MW55. As noted in Section 3.1.2, bis(2-ethylhexyl)phthalate is a common laboratory contaminant that is used industrially as a plasticizer (i.e., plastic softener) and is prevalent in such products as PVC pipe, Syran Wrap, and Zip-Lock baggies. Bis(2-ethylhexyl)phthalate was not detected in groundwater during the March 1997 and August 1996 sampling events at wells MW28, MW53, and MW55. In addition, monitoring wells MW22, MW28, and MW36 are upgradient and/or sidegradient of known contaminant source areas including areas were bis(2-ethylhexyl)phthalate was detected in the upper aquifer. As with the upper aquifer, the service of the compound is uncertain. Further monitoring may illuminate trends that will help to explain these detections.

Other SVOC compounds detected in groundwater collected from the lower aquifer monitoring wells included isophorone and phenols. Of these detections, none of the concentrations exceeded ROD remediation levels.

3.2.3 Pesticides and PCBs

Pesticides or PCBs were not detected in lower aquifer groundwater samples collected during the June 1997 quarterly sampling activities. As with the upper aquifer, pesticide detections have been uncommon and random throughout historical groundwater monitoring activities at the Site. Furthermore, PCBs have not been detected in lower aquifer groundwater during previous sampling investigations.

3.2.4 Inorganic Parameters

As with the upper aquifer, groundwater samples collected from lower aquifer wells in June 1997 were analyzed for total inorganics. Exceedances of ROD remediation levels for inorganics are discussed in the following paragraphs. The inorganic analytes, including those with ROD remediation levels, are typically naturally-occurring with concentrations that can naturally vary greatly both temporally and spatially.

Arsenic concentrations in groundwater exceeded the ROD remediation level of 8.8 µg/L at four monitoring well locations, MW24, MW33, MW52, and MW53. An arsenic concentration of 10.2 µg/L was reported for groundwater collected at MW24 which is located in the northwest corner of the wetlands, just east and south of the ditch. For the March 1997 and August 1996 sampling events, arsenic was not reported in groundwater

collected at this monitoring well. Arsenic concentrations of 18.5 µg/L, 70.8 µg/L, and 8.9 µg/L were measured for wells MW33, MW52, and MW53, respectively. Arsenic has been previously reported at least once during the March 1997 and August 1996 sampling events for these monitoring wells but the concentrations fluctuate over time without an apparent pattern.

Beryllium was detected in groundwater samples collected at monitoring wells MW10C, MW24, MW33, MW50, and MW53 above the ROD remediation level of 0.02 µg/L. Except for MW50 which is just south of Reder Road, these monitoring wells are located in the wetland to the northwest of the site. The highest concentration of beryllium measured in groundwater was 1.9 µg/L at monitoring well MW53. This concentration as well as the other detections are below the SQL and therefore, were qualified as estimated.

Manganese was detected in groundwater samples above the ROD remediation level of 275 µg/L collected at four lower aquifer monitoring wells MW10C, MW24, MW53, and MW55 located in the wetland to the northwest of the site. None of the reported concentrations exceeded the 3300 µg/L upperbound of the ROD remediation level.

Other naturally-occurring inorganic analytes detected in nearly all upper aquifer wells (i.e., analyte detected in > or = 75% of the wells) include aluminum, barium, calcium, chromium, cobalt, iron, magnesium, manganese, and sodium. Inorganic compounds detected more sporadically (i.e., the actual range for "sporadic" analyte detections was <70% and >20% of the wells) include arsenic, beryllium, copper, lead, nickel, potassium, vanadium, and zinc. Antimony was detected in less than 8% of the wells. The remaining TAL parameters were not detected in the lower aquifer monitoring well samples.

4.0 FOURTH QUARTER SAMPLING PLAN

The fourth and final quarter of the baseline monitoring plan includes well locations and sampling parameters for upper and lower aquifer monitoring activities. The monitoring plan provides for the measurement of water levels at a number of piezometers, staff gauges, and groundwater wells and the collection of the water quality samples at 24 upper aquifer wells and 23 lower aquifer wells in September 1997.

The well designations of the proposed upper and lower aquifer monitoring wells comprising the fourth quarterly baseline sampling event are listed on Tables 8 and 9, respectively. To facilitate review of the upper aquifer monitoring plan, the locations of wells have been grouped on Table 8 according to their location in the north, east, southeast, southwest or wetland areas of the site. Lower aquifer wells have been grouped on Table 9 according to their location in well clusters, and their relative hydrologic location in the aquifer (upgradient, side-gradient, downgradient).

Water levels will be measured at monitoring wells, piezometers, and staff gauges in the upper and lower aquifers prior to sampling the wells. Water levels will be monitored in a single day to minimize potential water level variability with time.

Prior to sampling, all monitoring wells will be purged and sampled using low-flow methods in accordance with the approved Monitoring Well Sampling Proposal and Protocol SOP for the Upper Aquifer Investigation (revision: July 25, 1996). Field parameters for pH, specific conductance, temperature, and turbidity will be measured and recorded during well purging. Sampling activities will be conducted over a two week period.

The fourth quarter sampling event for the upper and lower aquifers is scheduled for September 1997. The exact dates and times associated with the sampling effort will be dependent upon receipt of EPA approval of the fourth quarter sampling plan and other scheduling considerations.

At the conclusion of the fourth quarter baseline sampling event, a technical memorandum will be prepared to summarize the results for the preceding quarter and compare the results with previous data. A revised sampling plan would be submitted at this time, if necessary. The revised plan would include the rationale for each on-going sampling point and present justification for changes in the locations, frequency, and parameters for the sampling program.

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Table 1

Summary of Field Parameter Results
American Chemical Service, Inc. NPL Site
Griffith, Indiana

Well ID	Field Parameters				
	pH (std. units)	Conductivity (umhos/cm)	Conductivity (adjusted to 25°C)	Temperature (°C)	Turbidity (NTU)
MW1S*	5.17	5	5	22.8	14
MW3S	7.62	283	359	14.4	6
MW2S*	6.88	308	353	18.6	171
M4S	6.2	357	453	14.4	192
MW4D	7.46	358	450	14.8	42
MW6	6.18	2090	2524	16.4	24
MW7*	7.35	6	6	28.2	15
MW8	7.62	210	266	14.5	8
MW09	7.39	1361	1824	12.3	148
MW10C	7.66	800	1039	13.5	380
MW11	6.2	117	145	15.4	27
MW12*	6.48	158	201	14.4	93
MW13*	6.03	7	8	18.5	15
MW14	6.35	711	900	14.5	261
MW15*	7.23	6	6	24.9	14
MW18*	8.04	6	5	34.0	14
MW19	7.4	5260	6885	13.2	20
MW21	7.8	932	1183	14.4	6
MW22	8.23	3380	4483	12.7	35
MW23	7.17	754	913	16.3	39
MW24	7.09	1142	1535	12.2	204
MW28*	7.56	6	5	30.7	15
MW29	6.97	1367	1771	13.6	99
MW30*	NM	3	3	33.4	16
MW31	7.57	224	296	12.8	421
MW32	7.44	296	382	13.7	36
MW33	6.84	5	5	29.6	16
MW34	7.36	939	1245	12.7	28
MW36*	7.25	199	257	13.8	9
MW37*	6.74	7	7	22.4	13
MW38	6.58	487	696	10.0	17
MW39*	6.49	6	6	23.3	14
MW40	6.81	167	219	13.1	50
MW41	7.32	337	404	16.7	11
MW42	7.46	982	1265	13.8	107
MW43	7.34	908	1182	13.4	385
MW44	8.2	775	1006	13.5	302
MW45	7.52	1189	1439	16.3	9
MW46	6.62	NM	NM	13.2	1084
MW47	6.76	77	89	18.2	56
MW48	6.61	1057	1362	13.8	18
MW49	6.84	305	379	15.2	52
MW50*	6.18	6	6	24.8	12
MW51	7.01	495	632	14.1	261
MW52	7.35	1570	2133	11.8	75
MW53	6.81	3880	5173	12.5	228
MW54	7.48	363	463	14.2	200
MW55	7.25	306	403	12.9	245

Notes:
NTU = nephelometric turbidity units
NM = data not collected due to instrument failure.
*Indicates temperature reading inaccurate due to equipment error.

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Table 2

Groundwater Elevations - June 1997
American Chemical Service, Inc. NPL Site

Lower Aquifer Wells

Well Designation	Reference Points East	Reference Points North	Reference Points TOIC	6/23/97 Depth	6/23/97 Elevation	Notes
MW-7	6113	6732	641.46	17.44	624.02	
MW36	6164	6768	637.85	13.85	624.00	
MW-8	5934	7506	640.43	16.81	623.62	
MW31	5907	7505	641.64	18.03	623.61	
MW32	5902	7507	641.84	18.22	623.62	
MW-9	4893	6990	639.05	15.06	623.99	
MW29	4886	7012	638.06	14.09	623.97	
MW34	4880	7002	638.14	14.14	624.00	
MW-10	5200	7784	635.49	11.97	623.52	
MW30	5194	7774	634.25	10.81	623.44	
MW33	5189	7774	634.13	10.71	623.42	
MW51	5198	7767	634.16	10.73	623.43	
MW-10C	5229	7554	637.45	13.73	623.72	In Sand Seam in Confining Layer
MW-21	4546	7067	633.76	9.80	623.96	
MW-22	5208	4898	636.48	11.71	624.77	
MW-23	4717	7404	633.31	9.51	623.80	
MW-24	4596	8033	635.22	11.77	623.45	
MW28	5657	5696	648.77	24.18	624.59	
MW50	5269	5383	649.43	24.92	624.51	
ATMW-4D	5297	7311	637.99	14.22	623.77	ACS facility Well
W-2	5292	7307	638.46	7.33	631.13	Lower Aquifer Well
M-1D	4359	5747	638.32	13.96	624.36	Griffith Landfill Well
M-2D	3997	6495	637.11	13.03	624.08	Griffith Landfill Well
M-3D	4144	6821	632.19	8.21	623.98	Griffith Landfill Well
M-4D	4949	6538	633.32	9.34	623.98	Griffith Landfill Well
MW35	4934	6542	634.50	NM	NM	Discovered Damaged 3/97
M-5D	4171	7094	634.18	10.27	623.91	Griffith Landfill Well
MW52	4996	7814	632.74	9.22	623.52	
MW53	4977	7833	632.87	9.37	623.50	
MW54	5590	7592	636.05	12.66	623.39	
MW55	5595	7604	636.63	13.24	623.39	

Lower Aquifer Piezometers

Well Designation	Reference Points East	Reference Points North	Reference Points TOIC	6/23/97 Depth	6/23/97 Elevation	Notes
PZ44	6170	6766	638.47	14.47	624.00	
PZ42	5662	5696	648.44	23.86	624.58	
PZ43	5662	5702	648.69	24.11	624.58	

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Table 2

Groundwater Elevations - June 1997
American Chemical Service, Inc. NPL Site

Upper Aquifer Wells

Well Designation	Reference Points East	North	TOIC	6/23/97 Depth	Elevation	Notes
MW-2	5033	6839	638.05	7.28	630.77	Needs Repair - Still functional
MW-3	5299	7314	636.62	6.57	630.05	
MW-4	6112	7126	641.05	5.79	635.26	
MW-5	5788	6482	642.13	6.46	635.67	
MW-6	5298	5520	655.28	21.33	633.95	
MW-11	6377	7329	640.47	5.49	634.98	
MW-12	6019	6352	642.74	6.91	635.83	
MW-13	5050	7814	634.08	3.87	630.21	
MW-14	4882	6995	638.56	8.13	630.43	
MW-15	4721	5003	637.89	4.51	633.38	
MW-16	5065	6596	638.52	NM	NM	Not found - lost due to barrier well construction
MW-17	5656	5677	647.14	12.51	634.63	
MW-18	5836	5746	644.89	8.35	636.54	
MW-19	5231	4943	635.78	2.83	632.95	
MW-20	5095	5028	642.98	9.77	633.21	
AM-05	5224	6360	637.28	1.07	636.21	Labeled "Test Well"; Not shown on potentiometric map
Red Well	5204	6466	639.01	3.19	635.82	Not shown on potentiometric map
W-1	5305	7323	637.33	13.68	623.65	Not shown on potentiometric map
MW37	5395	7976	636.78	5.06	631.72	
MW38	5903	8216	636.51	4.64	631.87	
MW39	6253	7947	637.77	4.50	633.27	
MW40	6349	6831	639.46	3.62	635.84	
MW41	6242	4517	632.74	5.56	627.18	
MW42	6264	3808	632.32	5.19	627.13	
MW43	5880	3719	633.56	5.72	627.84	
MW44	5390	4303	633.04	3.25	629.79	
MW45	5830	4388	635.35	6.54	628.81	
MW46	4526	7424	633.32	2.81	630.51	
MW47	5958	5084	640.54	5.99	634.55	
MW48	5669	7814	636.36	4.54	631.82	
MW49	5551	7650	637.00	5.41	631.59	

Upper Aquifer Landfill Wells

Well Designation	Reference Points East	North	TOIC	6/23/97 Depth	Elevation	Notes
M-1S	4362	5743	639.09	5.74	633.35	
M-2S	3999	6491	637.12	7.17	629.95	
M-3S	4142	6819	631.88	3.96	627.92	
M-4S	4953	6537	633.42	5.03	628.39	
M-5S	4170	7089	634.17	4.58	629.59	

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Table 2

Groundwater Elevations - June 1997
American Chemical Service, Inc. NPL Site

Staff Gauges

Well Designation	Reference Points			6/23/97		Notes
	East	North	TOSG	Depth	Elevation	
SG-1	5023	6196	633.50	NM	633.50	Dry
SG-2	4423	6864	622.84	2.33	620.51	
SG-3	4180	7123	631.17	1.43	629.74	
SG-4	5228	6611	635.73	NM	NM	Not Found
SG-5	5464	7713	633.36	2.74	630.62	
SG-6	4495	8075	632.97	2.35	630.62	
SG-7	5403	6889	637.01	1.20	635.81	
SG-9	3846	6336	632.42	NM	NM	Not Found
SG-10	6748	7238	637.29	1.58	635.71	
SG-8R	5409	5252	634.70	1.09	633.61	
SG-11	5859	8245	634.62	2.92	631.70	
SG-12	5596	7867	634.12	3.13	630.99	

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Table 2
Groundwater Elevations - June 1997
American Chemical Service, Inc. NPL Site

Piezometers

Well Designation	Reference Points East	North	TOC	6/23/97 Depth	Elevation	Notes
LW-1	4807	5070	644.57	11.06	633.51	
LW-2	4662	5465	649.70	16.05	633.65	
P-1	5700	6365	642.84	NM	NM	Destroyed 6/97
P-2	5577	6165	645.57	NM	NM	Destroyed 6/97
P-3	5453	6470	639.87	3.71	636.16	
P-4	5432	6228	639.25	NM	NM	Not Found
P-5	5285	6510	636.70	1.02	635.68	Buried in Brush
P-6	5150	6551	638.75	NM	NM	Not Found 6/97
P-7	5950	6630	643.63	7.77	635.86	
P-8	6156	6734	639.27	16.80	622.47	
P-9	6134	6994	638.88	3.42	635.46	
P-10	5413	5852	649.32	12.72	636.60	Top of inner casing cracked 3/97 & 6/97
P-11	5199	5900	649.14	12.36	636.78	Bent, free product present 3/97 & 6/97
P-12	5076	5723	650.08	13.15	636.93	Free Product in Piezometer 3/97 & 6/97
P-13	4878	5735	651.20	17.27	633.93	
P-14	5014	5914	645.33	11.54	633.79	
P-15	5003	6187	639.93	8.09	631.84	
P-16	4673	5749	648.80	14.58	634.22	
P-17	4584	6006	654.64	23.26	631.38	Inside Griffith Landfill
P-18	4623	6224	649.84	6.70	643.14	Inside Griffith Landfill
P-19	4977	5043	639.71	NM	NM	Not Found
P-20	5104	6233	643.10	NM	NM	Possibly Destroyed 6/97
P-21	4569	6537	632.82	NM	NM	Not Found
P-22	4636	6732	634.30	7.06	627.24	
P-23	4689	7018	636.18	6.33	629.85	
P-24	5002	7178	636.06	5.21	630.85	
P-25	5131	7510	635.01	4.88	630.13	
P-26	4764	7309	634.23	4.07	630.16	
P-27	4904	7020	639.70	8.71	630.99	
P-28	5883	7486	644.53	10.39	634.14	
P-29	5738	6619	642.37	6.15	636.22	Free Product in piezometer
P-30	5626	6793	642.42	NM	NM	Not Found
P-31	5480	7159	641.03	5.25	635.78	
P-32	5746	7026	642.32	6.24	636.08	
P-33	5226	7129	640.20	4.07	636.13	
P-34	5279	6692	639.46	3.80	635.66	

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Table 2
Groundwater Elevations - June 1997
American Chemical Service, Inc. NPL Site

Piezometers Cont.

P-35	5515	6572	641.44	5.22	636.22	
P-36	5410	6851	645.89	9.74	636.15	
P-37	5330	6949	641.37	NM	NM	Destroyed 3/97
P-38	5149	6992	639.87	NM	NM	Destroyed 3/97
P-39	5940	6902	642.00	NM	NM	Not Found
P-40	5880	7229	640.10	3.99	636.11	
P-41	5702	7353	638.82	NM	NM	Not Found
P-49	5119	6951	638.96	5.39	633.57	Old P-51
P-50	5129	6964	639.59	NM	NM	Not Found
P-51	3876	6859	635.07	NM	NM	Not Found
P-52	4100	7845	636.66	6.31	630.35	
P-53	4597	8015	636.18	5.63	630.55	
P-54	4936	8081	638.28	6.78	631.50	
P-55	5628	7979	636.08	4.70	631.38	
P-56	6405	7665	639.46	4.88	634.58	
P-57	6783	7573	638.05	3.28	634.77	
P-58	6454	6932	638.30	2.64	635.66	
P-59	6389	6590	639.22	3.22	636.00	
P-60	6111	6051	640.23	4.34	635.89	
P-61	5533	5284	638.58	5.25	633.33	
P-62	5665	4945	637.06	5.06	632.00	
P-63	5483	7689	637.70	6.62	631.08	
EW-1	5113	6942	639.50	NM	NM	Not Found
P-64	4617	7065	634.87	4.71	630.16	
P-65	4615	7063	634.77	4.92	629.85	
P-66	4729	7034	636.02	6.17	629.85	
P-67	4732	7034	636.06	6.11	629.95	
P-68	4743	7752	634.48	3.80	630.68	
P-69	4741	7751	634.66	3.99	630.67	
P-70	4880	7680	635.38	5.23	630.15	
P-71	4876	7682	635.32	4.92	630.40	

JMM/jmm
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Table 2

Groundwater Elevations - June 1997
American Chemical Service, Inc. NPL Site

New Piezometers - Upper Aquifer

Nest Designation	Well Designation	Reference Points			6/23/97		Notes
		East	North	TOC	Depth	Elevation	
Well Nest #1	P-81	5577	7581	636.19	4.92	631.27	New 6/97
	P-82	5577	7572	635.77	4.55	631.22	New 6/97
	P-83	5577	7562	635.95	4.76	631.19	New 6/97
Well Nest #2	P-84	5322	7603	634.35	3.68	630.67	New 6/97
	P-85	5326	7594	634.08	2.95	631.13	New 6/97
	P-86	5329	7585	634.41	3.57	630.84	New 6/97
Well Nest #3	P-87	5121	7466	633.88	3.71	630.17	New 6/97
	P-88	5130	7460	633.90	3.60	630.30	New 6/97
	P-89	5137	7454	634.02	3.68	630.34	New 6/97
Well Nest #4	P-90	4881	7152	632.59	2.52	630.07	New 6/97
	P-91	4889	7145	632.97	2.87	630.10	New 6/97
	P-92	4896	7138	633.63	3.40	630.23	New 6/97
Piezometer Nest #1	P-93	5136	7067	638.79	8.07	630.72	New 6/97
	P-94	5146	7061	638.98	4.08	634.90	New 6/97
Piezometer Nest #2	P-95	5146	6532	638.58	7.79	630.79	New 6/97
	P-96	5156	6537	638.39	2.63	635.76	New 6/97
Piezometer Nest #3	P-97	5098	6283	638.39	6.91	631.48	New 6/97
	P-98	5130	6279	639.35	2.51	636.84	New 6/97
Piezometer Nest #4	P-99	5020	5945	644.35	10.54	633.81	New 6/97
	P-100	5031	5948	643.93	6.68	637.25	New 6/97
Piezometer Nest #5	P-107	5766	7339	637.42	3.41	634.01	New 6/97
	P-108	5757	7324	638.13	2.47	635.66	New 6/97

Note
All depth measurements and elevations are in units of feet.

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Table 3
Vertical Gradients in Wetlands - June 1997
American Chemical Service, Inc. NPL Site
Griffith, Indiana

Piezometer Nest	Screen Interval		Screen Midpoint	Separation (feet)	Groundwater Elevation			Hydraulic Gradient
	Top	Bottom			Upper	Lower	delta	
P64	629.05	624.10	626.58	5	630.16			
P65	622.20	620.20	621.20			629.85	-0.31	-0.062
P66	629.45	625.10	627.28	8	629.85			
P67	620.50	618.50	619.50			629.95	0.10	0.013
P68	628.15	623.80	625.98	6	630.68			
P69	621.10	618.60	619.85			630.67	-0.01	-0.002
P70	628.55	624.20	626.38	6	630.15			
P71	621.00	619.00	620.00			630.40	0.25	0.042

Notes:
(-) = Downward Gradient
(+) = Upward Gradient
Water Levels Collected by Montgomery Watson on June 23, 1997.

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Table 4
Vertical Gradients Between Upper and Lower Aquifers
June 1997
American Chemical Service, Inc. NPL Site
Griffith, Indiana

Well Designation	Screen Interval Top	Screen Interval Bottom	Screen Midpoint	Separation (feet)	Groundwater Elevation Upper	Groundwater Elevation Lower	Groundwater Elevation delta	Hydraulic Gradient
P28	634.30	629.30	631.80	11	634.14			
MW8	598.20	593.20	595.70			623.62	-10.52	-0.96
P27	631.02	626.02	628.52	8.5	634.77			
MW9	605.90	600.90	603.40			623.99	-10.78	-1.27
P8	635.36	630.36	632.86	18				
MW7	595.90	590.90	593.40					
MW17	632.94	622.94	627.94	28	634.63			
MW28	588.70	578.70	583.70			624.59	-10.04	-0.36

Notes:
(-) = Downward Gradient
(+) = Upward Gradient
P8 was measured incorrectly. Therefore vertical gradient was not calculated.
Water levels collected by Montgomery Watson on June 23, 1997.

Table 5
Vertical Gradients in Lower Aquifer - June 1997
American Chemical Service, Inc. NPL Site
Griffith, Indiana

Well	Screen Interval		Separation	Lowest	Groundwater Elevation					Vertical Gradients			
Nest	Top	Bottom	(feet)	Measurable Gradient	Upper	Upper	Middle	Lower	delta	Upper/ Upper	Upper/ Middle	Middle/ Lower	Upper/ Lower
MW7	595.9	590.9			Na	624.04				NA			
PZ44	578.4	573.4	13	0.0008			624.00		-0.04		-0.003	WU	
MW36	552.7	542.7	21	0.0005				624.00	0				-0.0010
MW8	598.2	593.2			NA	623.62				NA			
MW31	574.6	564.6	19	0.0005			623.61		-0.01		WU		WU
MW32	547.3	537.3	17	0.0006				623.62	0.01			0.0006	
MW9	605.9	600.9			NA	623.99				NA			
MW29	585.9	575.9	15	0.0007			623.97		-0.02		-0.001		
MW34	552.8	542.8	23	0.0004				624.00	0.03			0.0013	WU
MW51	611.9	601.9			623.43								
MW10	603.0	598.0	-1	-0.0091		623.52			0.09	-0.082			
MW30	585.0	575.0	13	0.0008			623.44		-0.08		-0.006		
MW33	556.0	546.0	19	0.0005				623.42	-0.02			-0.0011	WU
MW28	588.7	578.7			NA	624.59				NA			
PZ42	568.5	563.5	10	0.0010			624.58		-0.01		WU	WU	
PZ43	554.5	549.5	9	0.0011				624.58	0				WU
MW52	615.6	605.6			NA	623.52				NA			
MW53	555.7	545.7	50	0.0002			NA	623.50	-0.02		NA	NA	-0.0004
MW54	608.1	598.1			NA	623.39				NA			
MW55	547.6	537.6	51	0.0002			NA	623.39	0.00		NA	NA	WU

Notes:
Water levels collected by Montgomery Watson on June 23, 1997.
Positive values indicate upward gradient. Negative values indicate downward gradient

NA = Not Applicable. Calculating vertical gradient only for upper/lower interval at this location.

WU = Within Uncertainty of measurement technique.

JMM/jmm/KAS
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TABLE 6
Summary of Detected Compounds - Upper Aquifer
American Chemical Service, Inc. NPL Site
Griffith, Indiana

Parameter	Remediation Level from ROD	M-1S 6/26/97	M-3S 6/26/97	M-4S 6/26/97	MW-06 7/1/97	MW-11 6/24/97	MW-12 6/24/97	MW-13 6/27/97	MW-14 6/30/97	MW-15 6/25/97	MW-18 6/25/97	MW-19 6/30/97	MW-37 6/25/97	MW-38 6/25/97	MW-39 6/25/97
VOCs (ug/L)															
Chloromethane	8.4								2 J/						
Vinyl Chloride	0.25				3 J/										
Chloroethane	NA			1300 /J	140 /J			570 /J				13 /J			3 J/
Methylene Chloride	5				2 J/										
Acetone	2300-192											12 /			
1,2-Dichloroethene (total)	330-28			15 J/	5 J/										4 J/
Benzene	5			190 /	39 /		2 J/	610 /	1 J/	3 J/		3 J/			5 J/
4-Methyl-2-Pentanone	640-53											5 J/			
Tetrachloroethene	NA					1 J/									
Toluene	NA									1 J/					
Chlorobenzene	NA						6 J/								
Xylene (total)	NA														
SVOCs (ug/L)															
Phenol	NA				17 J/	5 J/	7 J/	23 /					23 /		
Bis(2-Chloroethyl)Ether	21			71 /	30 /			2 J/				9 J/			1 J/
1,2-Dichlorobenzene	NA														
2,2'-Oxybis(1-Chloropropane)	NA		3 J/				76 /								
Isophorone	19														
Naphthalene	NA														
2-Methylnaphthalene	NA														
Bis(2-Ethylhexyl)Phthalate	5.8				16 J/	7 J/						14 /	34 /		
Metals - Total (ug/L)															
Aluminum	NA			653 /	106 B/	633 /	786 /	427 /	13800 /	308 /		421 /	664 /	134 B/	153 B/
Antimony	NA								2.3 B/						
Arsenic	8.8		6.7 B/	5.5 B/	16.5 /				11.2 /	41 /		20.7 /			
Barium	NA	528 /J	112 B/J	737 /	168 B/	17 B/	48.3 B/	68.2 B/	112 B/	1070 /J	24.8 B/J	587 /	22.5 B/	33.1 B/J	67.8 B/J
Beryllium	0.02			1.2 B/											
Calcium	NA	212000 /J	85400 /J	397000 /	174000 /	33400 /	43900 /	107000 /	104000 /	67900 /J	63700 /J	73400 /	27400 /	54900 /J	101000 /J
Chromium	NA		4.3 B/J		10.6 /	5 B/	4.6 B/		36.4 /			10.2 /	3.8 B/		
Cobalt	NA	2.2 B/	1.5 B/	6.3 B/	2.8 B/	2.1 B/	1.1 B/	1.7 B/	12.2 B/	3.8 B/		2.3 B/	5.1 B/	7.1 B/	
Copper	NA				14.9 B/	7.9 B/	5.6 B/		26.4 /				6.9 B/		
Cyanide	NA				15 /										
Iron	NA	19700 /J	2820 /J	39500 /	3230 /	2280 /	10800 /	5780 /	33000 /	5510 /J		4370 /	2140 /	1940 /J	6730 /J
Lead	NA				9.6 /	5.3 /			19.3 /		6.3 /	3.7 /			
Magnesium	NA	73400 /J	30300 /J	49500 /	34400 /	13400 /	15700 /	30000 /	25600 /J	66800 /J	19600 /J	56200 /	9490 /	19400 /J	17500 /J
Manganese	3300-275	577 /J	618 /J	353 /	1580 /	128 /	1070 /	656 /	351 /	167 /J	24.4 /J	243 /	154 /	1270 /J	779 /J
Nickel	NA				17.1 B/	7.5 B/	3.5 B/			19.4 B/		16.2 B/	9.3 B/	21.8 B/	
Potassium	NA	46400 /J	8330 /J		19000 /	1590 B/	2610 B/			96500 /J	2720 B/J	86800 /	1050 B/	593 B/J	7290 /J
Selenium	NA								2.3 B/		3.2 B/				
Sodium	NA	67300 /J	24100 /J	130000 /	134000 /	4410 B/	8690 /	35700 /	9460 /	347000 /J	67700 /J	663000 /	5620 /	5400 /J	110000 /J
Thallium	2.4-0.2											3.7 B/			
Vanadium	NA	1.8 B/	1.5 B/	3.4 B/		4 B/	7.9 B/	1.8 B/	34.3 B/			1.6 B/	1.6 B/	2.7 B/	
Zinc	NA					23.1 /			63.4 /						

Exceeds ROD Limit = 310

_/_ = No data qualifier required.
J/_ = Data qualifier added by laboratory. See Appendix E.
_/J = Data qualifier added by data validator. See Appendix E.

TABLE 6
Summary of Detected Compounds - Upper Aquifer
American Chemical Service, Inc. NPL Site
Griffith, Indiana

Parameter	Remediation Level from ROD	MW-40 6/26/97	MW-41 6/25/97	MW-41-Dup 6/25/97	MW-42 6/26/97	MW-42-Dup 6/26/97	MW-43 6/26/97	MW-44 6/26/97	MW-45 6/26/97	MW-46 6/24/97	MW-47 6/26/97	MW-48 6/26/97	MW-49 6/25/97	MW-49-Dup 6/25/97
VOCs (ug/L)														
Chloromethane	8.4													
Vinyl Chloride	0.25													
Chloroethane	NA								120 /J			670 /J	540 /J	890 /J
Methylene Chloride	5													
Acetone	2300-192													
1,2-Dichloroethene (total)	330-28													
Benzene	5								940 /	2 J/		7700 /	4800 /J	6200 /J
4-Methyl-2-Pentanone	640-53													
Tetrachloroethene	NA													
Toluene	NA													
Chlorobenzene	NA								42 J/					
Xylene (total)	NA								280 /					
SVOCs (ug/L)														
Phenol	NA	4 J/							19 J/		16 /	100 /		
Bis(2-Chloroethyl)Ether	21								8 J/	4 J/		18 J/		
1,2-Dichlorobenzene	NA								2 J/					
2,2'-Oxybis(1-Chloropropane)	NA												22 J/	27 J/
Isophorone	19												7 J/	8 J/
Naphthalene	NA								140 /					
2-Methylnaphthalene	NA								7 J/					
Bis(2-Ethylhexyl)Phthalate	5.8													
Metals - Total (ug/L)														
Aluminum	NA	941 /	289 /J	512 /J	725 /	694 /	4270 /	1710 /		544 /	1630 /		273 /	296 /
Antimony	NA													
Arsenic	8.8				7.5 B/	8.2 B/	31.4 /	41.2 /	23.6 /	3.7 B/		9.4 B/	26.1 /	27 /
Barium	NA	23.9 B/	17.3 B/J	19.3 B/J	71.3 B/J	71 B/J	80.6 B/J	150 B/J	84.5 B/	110 B/	12.1 B/	125 B/	127 B/J	129 B/J
Beryllium	0.02													
Calcium	NA	17200 /	33300 /J	33600 /J	105000 /J	105000 /J	123000 /J	85700 /J	89100 /	112000 /	6130 /	107000 /	94200 /J	95000 /J
Chromium	NA		7.4 B/J	6.8 B/J	8.1 B/J	8.5 B/J	25.9 /	31.3 /		4.1 B/				
Cobalt	NA	2.6 B/			1.8 B/	1.8 B/	8 B/	2.5 B/	2.9 B/	2 B/	1.3 B/	3.3 B/	2.4 B/	2.4 B/
Copper	NA						39.4 /	27.4 /		4.9 B/				
Cyanide	NA													
Iron	NA	3060 /	302 /J	733 /J	6300 /J	6960 /J	22200 /J	14700 /J	10100 /	21000 /	1130 /	23300 /	26700 /J	27800 /J
Lead	NA		10.3 /J	5.3 /J			15.9 /		12.2 /	3 /	12.2 /		5.7 /	3.1 /J
Magnesium	NA		10900 /J	11300 /J	38700 /J	39000 /J	55400 /J	36100 /J	23200 /	29700 /		14300 /	11800 /J	11800 /J
Manganese	3300-275	365 /	72.6 /J	141 /J	597 /J	599 /J	586 /J	108 /J	416 /	1390 /	16.1 /	504 /	2150 /J	2170 /J
Nickel	NA						23.1 B/	17.8 B/		4.7 B/			14.3 B/	12.8 B/
Potassium	NA		359 B/J	412 B/J	1540 B/J	1530 B/J	2770 B/J	2040 B/J		1300 B/			5340 /J	5260 /J
Selenium	NA													
Sodium	NA	3320 B/	2900 B/J	2590 B/J	11400 /J	11700 /J	10300 /J	17400 /J	79000 /	58600 /	1780 B/	43600 /	29700 /J	29600 /J
Thallium	2.4-0.2													
Vanadium	NA	3.1 B/	1.1 B/	1.4 B/	1.8 B/	1.8 B/	12.8 B/	3.9 B/		2.8 B/	3.5 B/	1.6 B/		
Zinc	NA									16 B/				

Exceeds ROD Limit = 310

_/_ = No data qualifier required.
J/_ = Data qualifier added by laborat
_/J = Data qualifier added by data va

TABLE 7
Summary of Detected Compounds - Lower Aquifer
American Chemical Service, Inc. NPL Site
Griffith, Indiana

Parameter	Remediation Level from ROD	M-4D 6/26/97	MW-07 6/24/97	MW-08 6/24/97	MW-09 6/30/97	MW-09D 6/30/97	MW-10C 6/26/97	MW-10C-D 6/26/97	MW-21 6/25/97	MW-22 7/1/97	MW-23 6/24/97	MW-23-Dup 6/24/97	MW-24 6/24/97	MW-28 6/24/97
VOCs (ug/L)														
Vinyl Chloride	0.25							7 J/						
Chloroethane	NA				1700 /J	2000 /J	440 /J	340 /J						
Methylene Chloride	5							5 J/						
Acetone	2300-192													
Chloroform	NA									3 J/				
Benzene	5				280 /	330 /								
4-Methyl-2-Pentanone	640-53													
SVOCs (ug/L)														
Phenol	NA	8 J/	31 /		31 /	20 /	19 /		9 J/	100 /	29 /J	7 J/J	2 J/J	69 /
Bis(2-Chloroethyl)Ether	21				39 /	42 /								
Isophorone	19				1 J/	0.9 J/								
Bis(2-Ethylhexyl)Phthalate	5.8		2 J/							14 J/	4 J/J		4 J/	6 J/
Metals - Total (ug/L)														
Aluminum	NA		1030 /				3560 /	3510 /		218 /	252 /	278 /	14800 /	691 /
Antimony	NA						3.6 B/							
Arsenic	8.8			5.1 B/	2.5 B/	2.4 B/	3.4 B/	2.9 B/					10.2 /	
Barium	NA	179 B/	124 B/	126 B/	331 /	330 /	339 /	344 /	197 B/	547 /	116 B/	119 B/	386 /	102 B/
Beryllium	0.02						1.1 B/	1.4 B/					1.6 B/	
Calcium	NA	84100 /	97000 /	53000 /	149000 /	155000 /	130000 /	133000 /	114000 /	234000 /	72600 /	72100 /	170000 /	77900 /
Chromium	NA		18.4 /	3.4 B/			26.6 /	31.4 /	9.8 B/	11.6 /	7.4 B/	3.1 B/	143 /	51.1 /
Cobalt	NA		1.5 B/		5.3 B/	5.4 B/	4.4 B/	5 B/	1.5 B/	1.2 B/	1.3 B/	1.2 B/	14 B/	2 B/
Copper	NA		7.2 B/	1.5 B/				12.6 B/			4.1 B/		93.5 /	13.6 B/
Iron	NA	1700 /	4650 /	3080 /	15400 /	15900 /	12700 /	13200 /	2920 /	746 /	5790 /	5370 /	51500 /	2880 /
Lead	NA						10.1 /		1.8 B/	4.9 /			24.5 /	
Magnesium	NA	39800 /	29100 /	17100 /	25600 /	25900 /	59400 /	61000 /	34800 /	38500 /	18800 /	18900 /	51800 /	35200 /
Manganese	3300-275	34.1 /	195 /	173 /	181 /	186 /	264 /	310 /	199 /	39.2 /	249 /	241 /	696 /	72.3 /
Nickel	NA		14.4 B/	2.5 B/					9.4 B/	9.5 B/	5.2 B/	3 B/	95.6 /	35.5 B/
Potassium	NA		2170 B/	1260 B/					4280 B/	22100 /	3180 B/	3310 B/	9750 /	2220 B/
Sodium	NA	71700 /	19000 /	12800 /	68700 /	68800 /	163000 /	162000 /	40500 /	257000 /	63300 /	65900 /	89700 /	14400 /
Vanadium	NA		2.2 B/		3.8 B/	3.7 B/	7.9 B/	8.1 B/			2.4 B/	2.1 B/	30.4 B/	1.7 B/
Zinc	NA		21.7 /				75.2 /	89.4 /					97.1 /	20.4 /

Exceeds ROD Limit = 310

_/_ = No data qualifier required.

J/_ = Data qualifier added by laboratory. See Appendix E.

_/J = Data qualifier added by data validator. See Appendix E

TABLE 7
Summary of Detected Compounds - Lower Aquifer
American Chemical Service, Inc. NPL Site
Griffith, Indiana

Parameter	Remediation Level from ROD	MW-29 6/30/97	MW-30 6/26/97	MW-31 6/25/97	MW-32 6/24/97	MW-33 6/26/97	MW-34 6/30/97	MW-36 6/25/97	MW-50 6/24/97	MW-51 6/25/97	MW-52 6/25/97	MW-53 6/25/97	MW-54 6/25/97	MW-55 6/25/97
VOCs (ug/L)														
Vinyl Chloride	0.25													
Chloroethane	NA													
Methylene Chloride	5													
Acetone	2300-192											16 /	10 /	
Chloroform	NA													
Benzene	5	3 J/										1 J/		
4-Methyl-2-Pentanone	640-53									4 J/				
SVOCs (ug/L)														
Phenol	NA	32 /	40 /		12 /J	50 /	33 /	120 /	18 /	25 /J		50 /	82 /J	
Bis(2-Chloroethyl)Ether	21													
Isophorone	19													
Bis(2-Ethylhexyl)Phthalate	5.8			4 J/				11 J/	2 J/			17 /		40 /
Metals - Total (ug/L)														
Aluminum	NA	635 /	277 /	412 /	1190 /		384 /	559 /	2780 /	362 /	1360 /	15000 /	1860 /	1870 /
Antimony	NA											3.3 B/		
Arsenic	8.8			4.3 B/	2.1 B/	18.5 /					70.8 /	8.9 B/	5.3 B/	2.8 B/
Barium	NA	140 B/	197 B/	246 /	205 /	1200 /	176 B/	160 B/	232 /	386 /J	308 /J	1620 /	149 B/J	178 B/
Beryllium	0.02					1 B/			1.1 B/			1.9 B/		
Calcium	NA	115000 /	90500 /	96400 /	66500 /	273000 /	85700 /	74400 /	131000 /	137000 /J	113000 /J	258000 /	123000 /J	80000 /
Chromium	NA	24 /		23.6 /	149 /		37.9 /	17.1 /	6.6 B/		15.4 /	102 /	23.6 /	17.2 /
Cobalt	NA	2.6 B/	3.7 B/	2.1 B/	2.4 B/	3 B/	1.4 B/	1.3 B/	2.9 B/	1.2 B/	2.8 B/	8.6 B/	1.8 B/	2.5 B/
Copper	NA	15.3 B/		24.4 B/	29.5 /		23.8 B/	7.6 B/	9.1 B/			49.2 /	42.1 /	10.7 B/
Iron	NA	7410 /	3900 /	3730 /	5840 /	25300 /	4320 /	4310 /	5460 /	6590 /J	6820 /J	32700 /	4270 /J	1580 /
Lead	NA			8.9 /	7 /			4.1 /				24.2 /	10.4 /	8.3 /
Magnesium	NA	55700 /	45300 /	35100 /	41800 /	63000 /	49500 /	47100 /	63300 /	61800 /J	43300 /J	117000 /	51900 /J	48500 /
Manganese	3300-275	118 /	50.9 /	141 /	86 /	102 /	55.5 /	72.3 /	112 /	89.4 /J	222 /J	521 /	163 /J	284 /
Nickel	NA			28.6 B/	96.4 /			13.5 B/	9.1 B/		17.3 B/	93.1 /	23.3 B/	28.6 B/
Potassium	NA			2130 B/	4500 B/			5020 /	17000 /	3710 B/J	3990 B/J	33200 /	2950 B/J	6650 /
Sodium	NA	76100 /	33400 /	19100 /	38200 /	179000 /	35200 /	35500 /	280000 /	103000 /J	138000 /J	404000 /	19400 /J	47400 /
Vanadium	NA	1.8 B/		1.3 B/	1.6 B/			1.1 B/	4.6 B/		2.9 B/	7.8 B/	3.3 B/	1.6 B/
Zinc	NA			30.1 /	21.7 /			24.3 /				109 /	128 /	30.6 /

Exceeds ROD Limit = 310

_/_ = No data qualifier required.
J/_ = Data qualifier added by labo
_/J = Data qualifier added by data

Table 8
September 1997 Upper Aquifer Sampling Program
American Chemical Service, Inc. NPL Site
Griffith, Indiana

	Area of Site	Well Identification	Site Location
1	North	MW-37	Downgradient
2		MW-38	Downgradient
3		MW-39	Side-gradient
4	East	MW-11	Side-gradient East of site
5		MW-40	
6		MW-12	
7		MW-18	
8	Southeast	MW-47	Downgradient southeast of landfill
9		MW-41	
10		MW-42	
11		MW-43	
12		MW-44	
13		MW-19	
14		MW-15	
15	Southwest	M-1S	Southwest of landfill Griffith Landfill
16		M-3S	
17	Wetlands	MW-14	Downgradient in wetland area
18		MW-46	
19		MW-13	
20	Plume Interior	MW-48	North side of site
21		MW-49	North side of site
22		MW-6	southeast of landfill
23		MW-45	southeast of landfill
24		M-4S	Griffith Landfill

Notes:

TCL Target Compound List

TAL Target Analyte List (arsenic, beryllium, manganese, thallium)

Table 9
September 1997 Lower Aquifer Sampling Program
American Chemical Service, Inc. NPL Site
Griffith, Indiana

	Well Identification	Well Screen Depth in Lower Aquifer	Site Location
1	MW-24	Upper	Downgradient
2	MW-52	Upper	Downgradient
3	MW-53	Lower	north of site
4	MW-51	Upper	Downgradient
5	MW-30	Middle	north of site
6	MW-33	Lower	
7	MW-54	Upper	Downgradient
8	MW-55	Lower	north of site
9	MW-8	Upper	Downgradient
10	MW-31	Middle	North
11	MW-32	Lower	
12	MW-10C	Upper	Downgradient
13	MW-23	Upper	Downgradient
14	MW-9	Upper	Downgradient
15	MW-29	Middle	west of site
16	MW-34	Lower	
17	M-4	Upper	Griffith Landfill
18	MW-21	Upper	Side-gradient
19	MW-7	Upper	Side-gradient
20	MW-36	Lower	
21	MW-28	Upper	Upgradient
22	MW-22	Upper	Upgradient
23	MW-50	Upper	south of site

Notes:

TCL Target Compound List (VOCs, SVOCs)

TAL Target Analyte List (arsenic, beryllium, thallium, manganese)

LEGEND

- MW12 — UPPER AQUIFER WELL LOCATION AND NUMBER
- M-1S — LEACHATE/UPPER AQUIFER WELL LOCATION AND DESIGNATION
- P61 — PIEZOMETER LOCATION AND DESIGNATION
- SG10 — STAFF GAUGE LOCATION AND DESIGNATION
- IW3 — INJECTION WELLS FOR PERIMETER GROUND WATER CONTAINMENT SYSTEM AND DESIGNATION
- MW12 — MONITORING WELL DELETED FROM QUARTERLY MONITORING PROGRAM
- P61 — PIEZOMETER DELETED FROM QUARTERLY MONITORING PROGRAM
- SG10 — STAFF GAUGE DELETED FROM QUARTERLY MONITORING PROGRAM
- P100 — PIEZOMETER ADDED TO QUARTERLY MONITORING PROGRAM
- BARRIER WALL
- PERIMETER GROUND WATER CONTAINMENT SYSTEM
- GRIFFITH LANDFILL BOUNDARY

north

0 200 400
SCALE IN FEET

FIGURE 1

Developed By JMC
Drawn By DP
Approved By TAB
Date 9/25/97
Reference
Revisions

CHANGES TO UPPER AQUIFER MONITORING NETWORK
JUNE 23, 1997

JUNE 1997 GROUNDWATER SAMPLING RESULTS REPORT
AMERICAN CHEMICAL SERVICE, INC.
NPL SITE
GRIFFITH, INDIANA

Drawing Number
1252042
221602 **B1**

MONTGOMERY WATSON

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Management Review
Other
Technical Review
Project Manager
Graphic Standards
Lead Professional
QUALITY CONTROL

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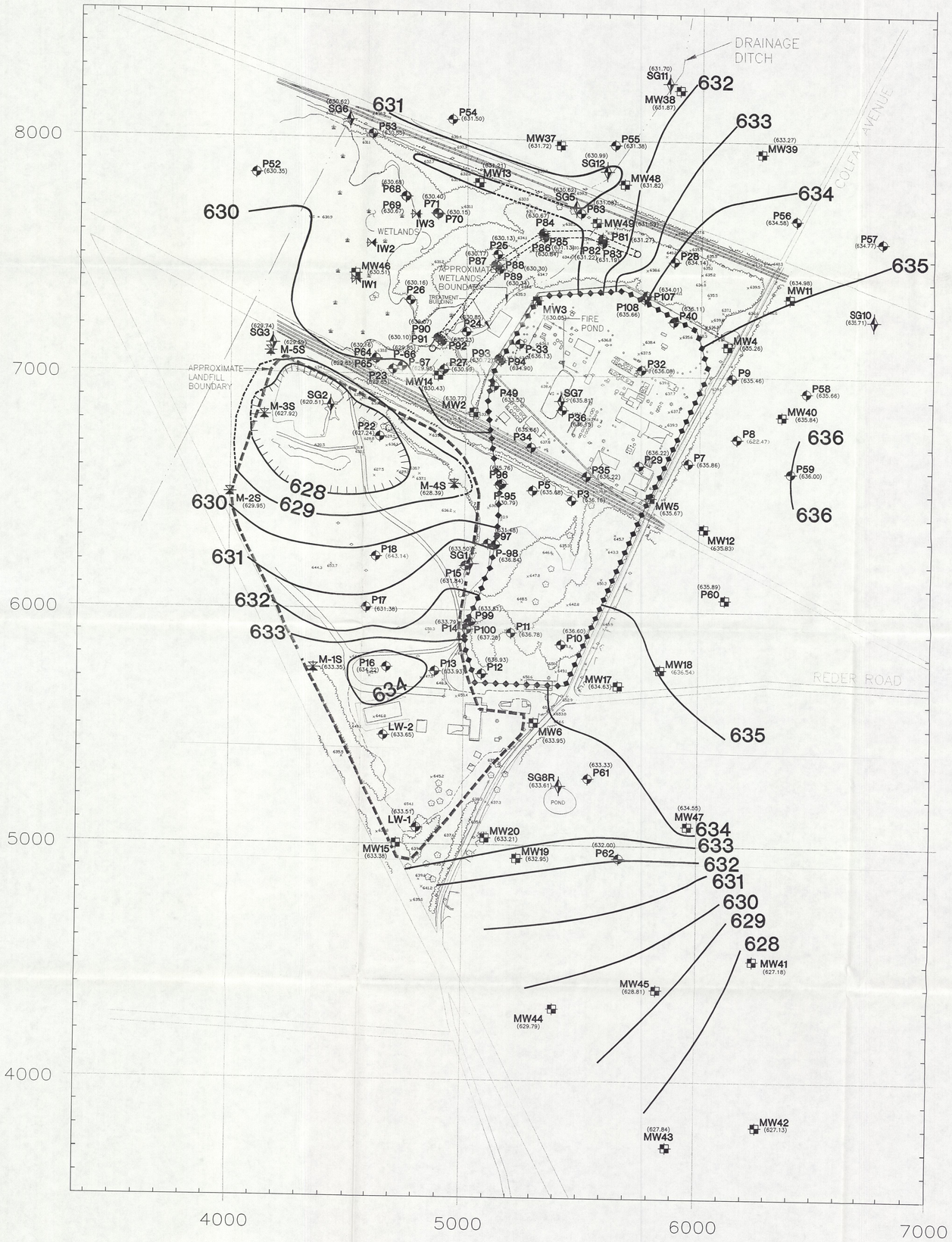

LEGEND

- MW12 — UPPER AQUIFER WELL LOCATION AND DESIGNATION
- M-1S — LEACHATE/UPPER AQUIFER WELL LOCATION AND DESIGNATION
- P61 — PIEZOMETER LOCATION AND DESIGNATION
- SG10 — STAFF GAUGE LOCATION AND DESIGNATION
- IW3 — INJECTION WELLS FOR PERIMETER GROUND WATER CONTAINMENT SYSTEM AND DESIGNATION
- (632) — ELEVATION
- (632) — ELEVATION MEASURED BUT NOT USED FOR DETERMINATION OF THE POTENTIOMETRIC SURFACE
- 630 —— GROUNDWATER ELEVATION CONTOUR BASED ON GROUNDWATER ELEVATION DATA
- 630 - - - - GROUNDWATER ELEVATION CONTOUR BASED ON HYDROGEOLOGIC CONDITIONS
- BARRIER WALL
- PERIMETER GROUND WATER CONTAINMENT SYSTEM
- GRIFFITH LANDFILL BOUNDARY

NOTES

1. GROUNDWATER ELEVATIONS FOR WATER TABLE CONTOURS WERE MEASURED AT THE SITE ON JUNE 23, 1997.

north

0 200 400

SCALE IN FEET

FIGURE 2

Developed By JMC | Drawn By DP

Approved By TAB | Date 9/25/97

Reference

Revisions

UPPER AQUIFER POTENTIOMETRIC SURFACE
JUNE 23, 1997

JUNE 1997 GROUNDWATER SAMPLING RESULTS REPORT
AMERICAN CHEMICAL SERVICE, INC.
NPL SITE
GRIFFITH, INDIANA

Drawing Number
1252042
221602 B1

MONTGOMERY WATSON

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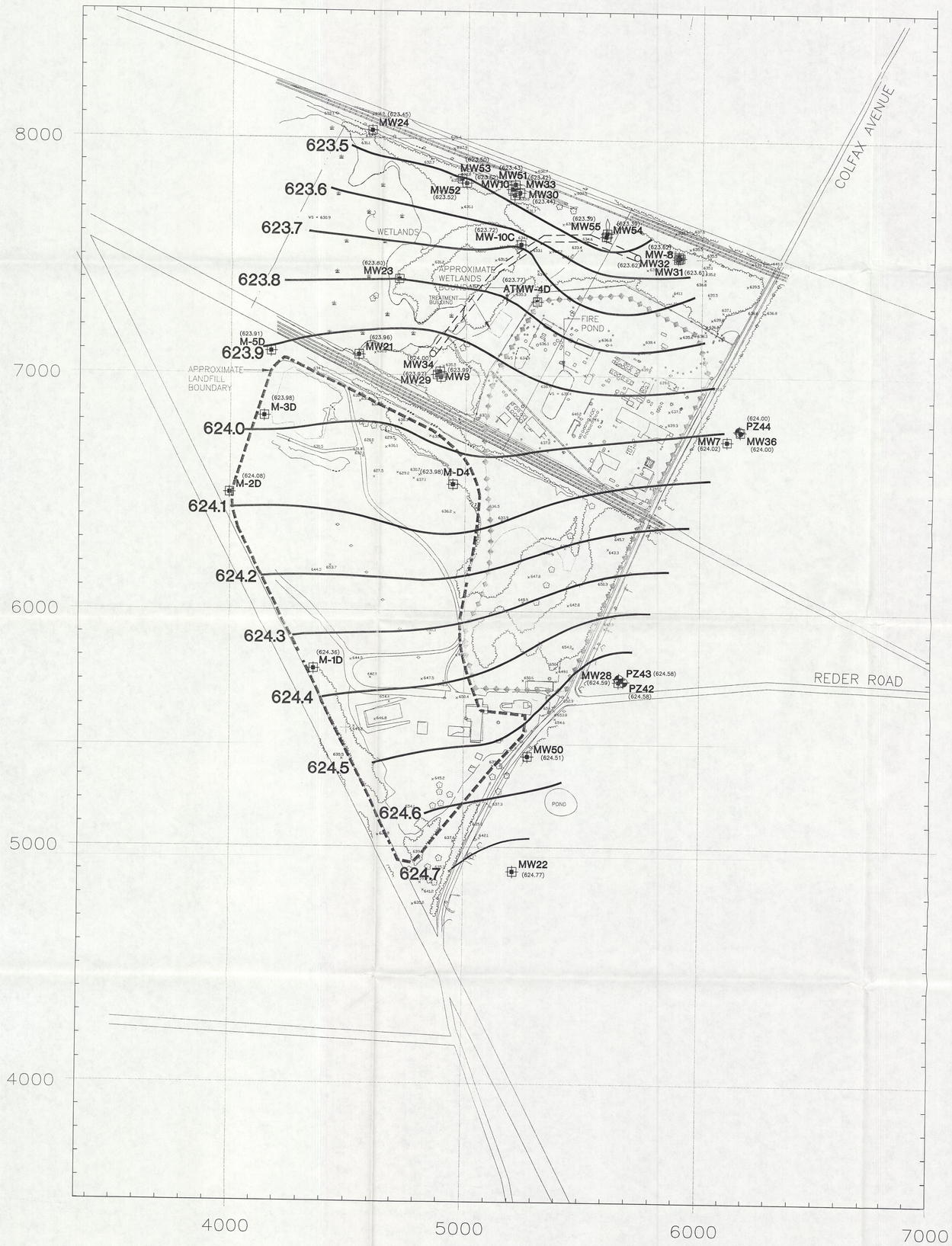

LEGEND

MW09	LOWER AQUIFER MONITORING WELL LOCATION AND DESIGNATION, SHOWING MEASURED GROUNDWATER ELEVATION
P61	PIEZOMETER LOCATION AND DESIGNATION
(632)	ELEVATION
625.0	GROUNDWATER ELEVATION CONTOUR
	BARRIER WALL
	GRIFFITH LANDFILL BOUNDARY
	PERIMETER GROUND WATER CONTAINMENT SYSTEM

NOTES

1. GROUNDWATER ELEVATIONS FOR THE WATER TABLE CONTOURS WERE MEASURED AT THE SITE ON JUNE 23, 1997

north

0 200 400

SCALE IN FEET

FIGURE 3

LOWER AQUIFER POTENTIOMETRIC SURFACE
JUNE 23, 1997

1997 BASELINE GROUNDWATER SAMPLING RESULTS REPORT
AMERICAN CHEMICAL SERVICE, INC.
NPL SITE
GRIFFITH, INDIANA

Drawing Number
1252042
221602 B3

MONTGOMERY WATSON

Developed By JMC
Approved By TAB
Drawn By DKP
Date 9/25/97
Reference
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Management Review
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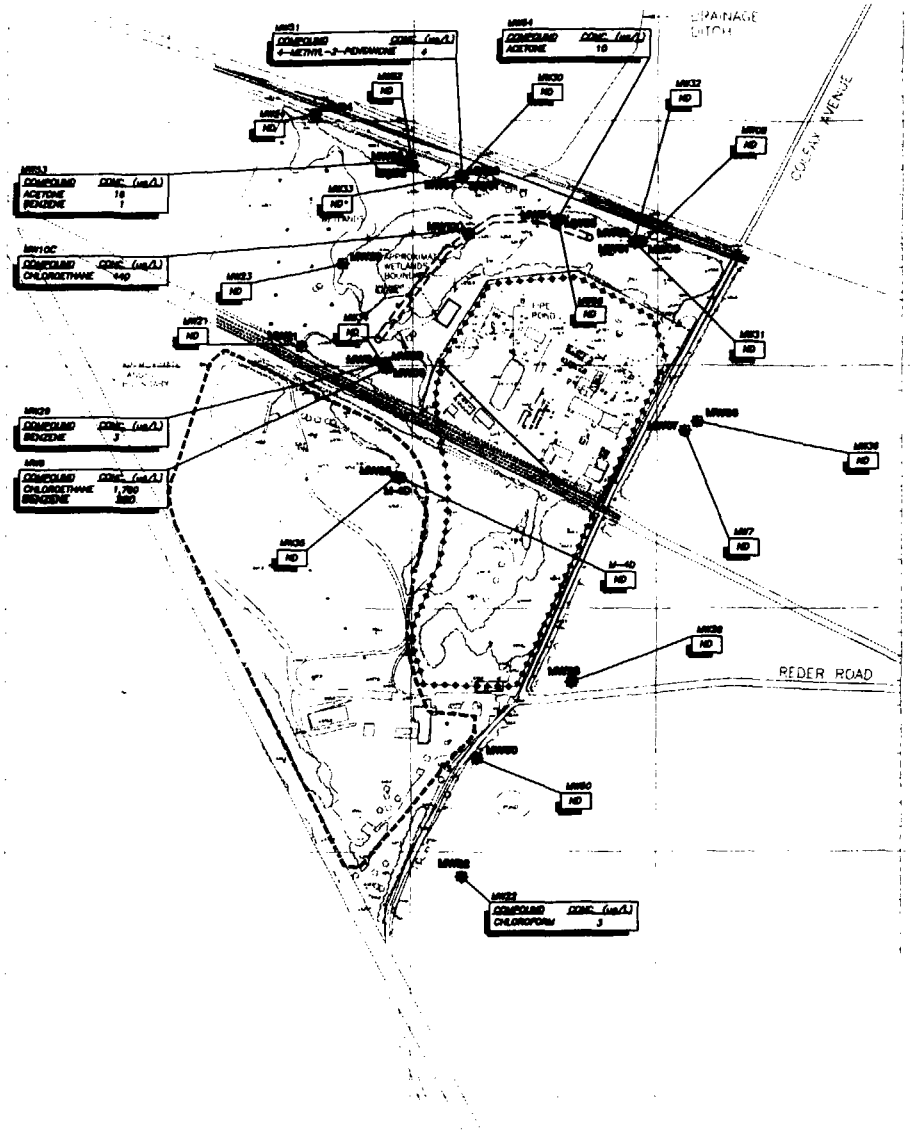

LEGEND

MW12	LOWER AQUIFER MONITORING WELL LOCATION AND NUMBER
M-48	LEACHATE/UPPER AQUIFER WELL LOCATION AND DESIGNATION
ug/L	MICROGRAMS PER LITER
(J)	INDICATES AN ESTIMATED VALUE
ND	NO VOC DETECTED
	BARRIER WALL
	PERIMETER GROUND WATER CONTAINMENT SYSTEM
	GRIFFITH LANDFILL BOUNDARY

NOTE

THE CONCENTRATION (AND ASSOCIATED COMPOUND) SHOWN IN BOLD EXCEEDED ROD REMEDIATION LEVELS

north

0 500 1000

SCALE IN FEET

FIGURE 5

Developed By PWS
Drawn By CCM
Approved By
Date
Reference
Revisions

VOCs DETECTED IN LOWER AQUIFER MONITORING WELLS

FIRST QUARTER GROUNDWATER MONITORING RESULTS REPORT
AMERICAN CHEMICAL SERVICE, INC.
NPL SITE
GRIFFITH, INDIANA

Drawing Number
1252.042 **B12**

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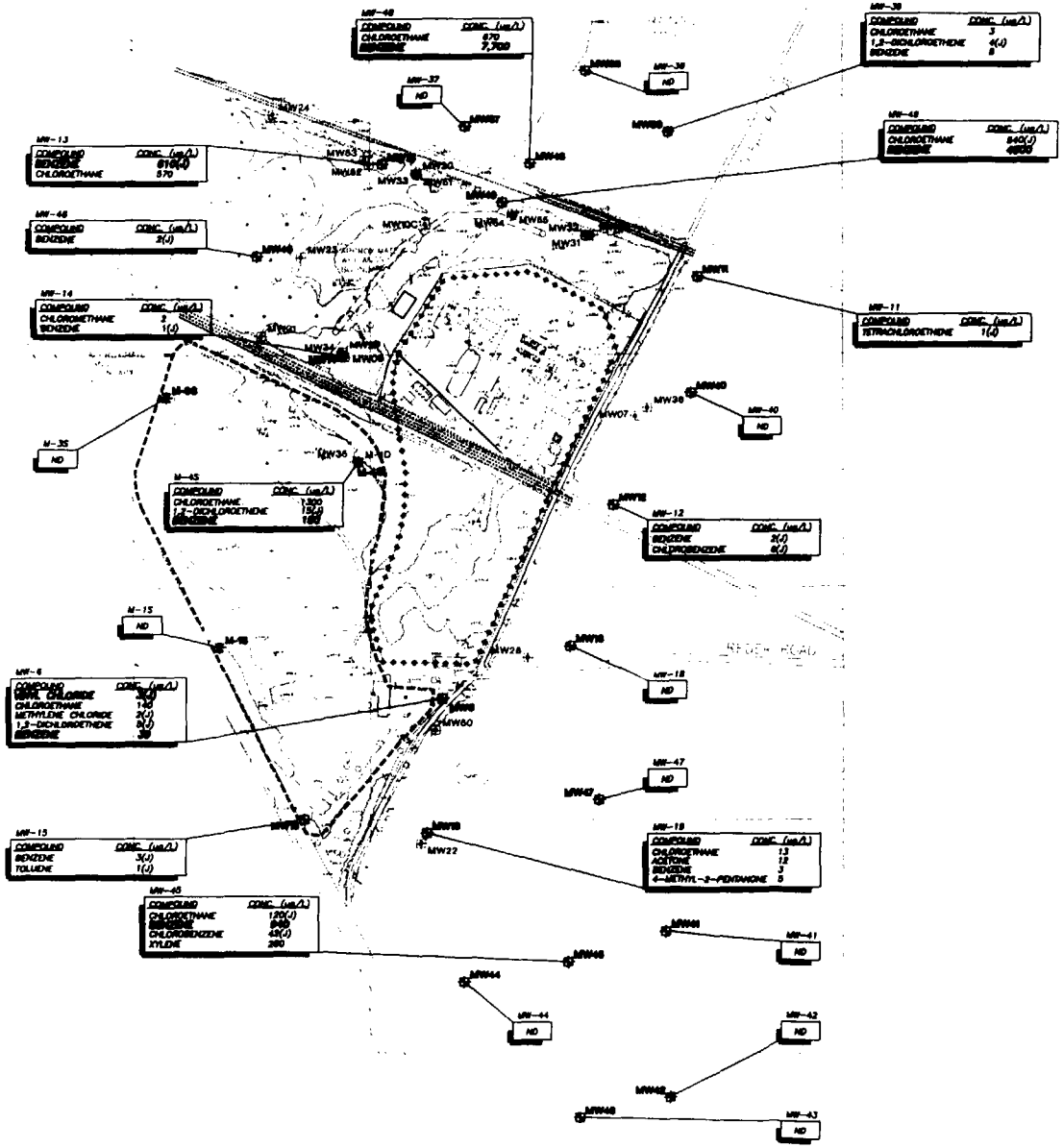

LEGEND

MW-42	UPPER AQUIFER WELL LOCATION AND NUMBER
MW09	LEACHATE/UPPER AQUIFER WELL LOCATION AND DESIGNATION
ug/L	MICROGRAMS PER LITER
(J)	INDICATES AN ESTIMATED VALUE
ND	NO VOC DETECTED
	BARRIER WALL
	PERIMETER GROUND WATER CONTAINMENT SYSTEM
	GRIFFITH LANDFILL BOUNDARY

NOTE

THE CONCENTRATION (AND ASSOCIATED COMPOUND) SHOWN IN BOLD EXCEEDED ROD REMEDIATION LEVELS

north

0 500 1000

SCALE IN FEET

FIGURE 4

VOCs DETECTED IN UPPER AQUIFER MONITORING WELLS

1996 GROUNDWATER SAMPLING RESULTS REPORT
AMERICAN CHEMICAL SERVICE, INC.
NPL SITE
GRIFFITH, INDIANA

Developed By PMS
Drawn By CCM
Approved By
Date
Reference
Revisions

Drawing Number 1252042 B11

MONTGOMERY WATSON

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Graphic Standard
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APPENDIX A

LABORATORY ANALYTICAL DATA
UPPER AQUIFER – VOCs, SVOC, PCB/PESTICIDE

VOLATILE ORGANICS ANALYSIS DATA SHEET

ACS-GWMW1S-02

DATE SAMPLED: 6/26/97

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970650314

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0701109.D

Level: (low/med) LOW Date Received: 06/27/97 ①

% Moisture: not dec. Date Analyzed: 07/01/97 ⑤

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CRQL MULTIPLIER = 1.00

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	UJ 10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
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	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
108-88-3	Toluene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	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

FORM I VOA

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW1S-02

DATE SAMPLED: 6/26/97

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970650314

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0701P03.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: decanted: (Y/N) Date Extracted: 06/30/97 (1)

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/02/97 (3)

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: CRQL MULTIPLIER = 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	ug/l	Q
108-95-2	Phenol	WU	16	
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
95-50-1	1,2-Dichlorobenzene		10	U
95-48-7	2-Methylphenol		10	U
108-60-1	2,2'-Oxybis(1-Chloropropane)		10	U
106-44-5	4-Methylphenol		10	U
621-64-7	N-Nitrosodi-N-Propylamine		10	U
67-72-1	Hexachloroethane	UJ	10	U
98-95-3	Nitrobenzene		10	U
78-59-1	Isophorone		10	U
88-75-5	2-Nitrophenol		10	U
105-67-9	2,4-Dimethylphenol		10	U
111-91-1	Bis(2-Chloroethoxy) Methane		10	U
120-83-2	2,4-Dichlorophenol		10	U
120-82-1	1,2,4-Trichlorobenzene		10	U
91-20-3	Naphthalene		10	U
106-47-8	4-Chloroaniline		10	U
87-68-3	Hexachlorobutadiene		10	U
59-50-7	4-Chloro-3-Methylphenol		10	U
91-57-6	2-Methylnaphthalene		10	U
77-47-4	Hexachlorocyclopentadiene		10	U
88-06-2	2,4,6-Trichlorophenol		10	U
95-95-4	2,4,5-Trichlorophenol		25	U
91-58-7	2-Chloronaphthalene		10	U
88-74-4	2-Nitroaniline		25	U
131-11-3	Dimethylphthalate		10	U
208-96-8	Acenaphthylene		10	U
606-20-2	2,6-Dinitrotoluene		10	U
99-09-2	3-Nitroaniline		25	U
83-32-9	Acenaphthene		10	U

1C

CLIENT SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

ACS-GWMW1S-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970650314

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0701P03.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: decanted: (Y/N) Date Extracted: 06/30/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/02/97

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	ug/l	Q
51-28-5	2,4-Dinitrophenol		25	U
100-02-7	4-Nitrophenol	uJ	25	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		25	U
534-52-1	4,6-Dinitro-2-Methylphenol		25	U
86-30-6	N-Nitrosodiphenylamine		10	U
101-55-3	4-Bromophenyl-phenylether		10	U
118-74-1	Hexachlorobenzene		10	U
87-86-5	Pentachlorophenol		25	U
85-01-8	Phenanthrene		10	U
120-12-7	Anthracene		10	U
86-74-8	Carbazole		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		10	U
56-55-3	Benzo(A)Anthracene		10	U
218-01-9	Chrysene		10	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	u	10	J
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

1F

CLIENT SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

ACS-GWMW1S-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970650314

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0701P03.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: decanted: (Y/N) Date Extracted: 06/30/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/02/97

Injection Volume: 2 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs Found: 7

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	Unknown	7.71	3	J
	~~Unknown~~	~~8.53~~	~~7~~	~~JB~~
	Unknown	9.75	4	J
001696-20-4	MORPHOLINE, 4-ACETYL-	12.47	3	JN
	Unknown	13.54	2	J
000134-62-3	DIETHYLTOLUAMIDE	17.68	3	JN
010544-50-0	SULFUR, MOL. (S8)	22.88	5	JN

FORM I SV-TIC

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
ACS-GWMW1S-02

MW1S

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

DATE SAMPLED: 6/26/97

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970650314

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P4070197_041.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 06/27/97

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 06/30/97 (2)

Concentrated Extract Volume: 10000(uL) Date Analyzed: 07/11/97 (11)

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CRQL MULTIPLIER = 1.00

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	UJ 0.10	U
72-20-8	Endrin	UJ 0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	UJ 0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	UJ 0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	UJ 0.10	U
7421-93-4	Endrin aldehyde	UJ 0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

CLIENT SAMPLE N.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

ACS-GWMW1S-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970650314

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0701109.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: not dec. Date Analyzed: 07/01/97

GC Column: DB-624 ID: 0.53(mm) Dilution Factor: 1.0

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

Number TICs Found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
000060-29-7	ETHER	4.18	JN 6	JN

FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

ACS-GWMW2S-02

DATE SAMPLED: 6/26/97

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970650619

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0701114.D

Level: (low/med) LOW Date Received: 06/27/97 (1)

% Moisture: not dec. Date Analyzed: 07/01/97 (5)

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CRQL MULTIPLIER = 1.00

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	UJ 10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
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	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
108-88-3	Toluene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	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

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

ACS-GWMW2S-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970650619

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0701P08.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: decanted: (Y/N) Date Extracted: 06/30/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/02/97

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	ug/l	Q
51-28-5	2,4-Dinitrophenol		25	U
100-02-7	4-Nitrophenol	45	25	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		25	U
534-52-1	4,6-Dinitro-2-Methylphenol		25	U
86-30-6	N-Nitrosodiphenylamine		10	U
101-55-3	4-Bromophenyl-phenylether		10	U
118-74-1	Hexachlorobenzene		10	U
87-86-5	Pentachlorophenol		25	U
85-01-8	Phenanthrene		10	U
120-12-7	Anthracene		10	U
86-74-8	Carbazole		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		10	U
56-55-3	Benzo(A)Anthracene		10	U
218-01-9	Chrysene		10	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	104	4	J
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

1B

CLIENT SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

ACS-GWMW2S-02

DATE SAMPLED: 6/26/97

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970650619

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0701P08.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: decanted: (Y/N) Date Extracted: 06/30/97 (2)

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/02/97 (3)

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: CRQL MULTIPLIER = 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
108-95-2	Phenol	104 4	J
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
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitrosodi-N-Propylamine	10	U
67-72-1	Hexachloroethane	UJ 10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	Bis(2-Chloroethoxy) Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

CLIENT SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

ACS-GWMW2S-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970650619

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0701P08.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: decanted: (Y/N) Date Extracted: 06/30/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/02/97

Injection Volume: 2 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs Found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	Unknown	7.71	JN 2	J
	~~Unknown~~	~~8.53~~	~~R 6~~	~~JB~~

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
ACS-GWMW2S-02

MW2S

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

DATE SAMPLED: 6/26/97

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970650619

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P4070197_048.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 06/27/97

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 06/30/97

Concentrated Extract Volume: 10000(uL) Date Analyzed: 07/11/97

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CLQ MULTIPLIER = 1.00

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	UJ 0.10	U
72-20-8	Endrin	UJ 0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	UJ 0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	UJ 0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	UJ 0.10	U
7421-93-4	Endrin aldehyde	UJ 0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

ACS-GWMW2S-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970650619

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0701114.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: not dec. Date Analyzed: 07/01/97

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs Found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

VOLATILE ORGANICS ANALYSIS DATA SHEET

ACS-GWMW3S-02

DATE SAMPLED: 6/26/97

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970650316

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0701111.D

Level: (low/med) LOW Date Received: 06/27/97 (1)

% Moisture: not dec. Date Analyzed: 07/01/97 (5)

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CRQL MULTIPLIER = 1.00

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	UJ	10	U
75-09-2	Methylene Chloride		10	U
67-64-1	Acetone		10	U
75-15-0	Carbon Disulfide		10	U
75-35-4	1,1-Dichloroethene		10	U
75-34-3	1,1-Dichloroethane		10	U
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		10	U
71-55-6	1,1,1-Trichloroethane		10	U
56-23-5	Carbon Tetrachloride		10	U
75-27-4	Bromodichloromethane		10	U
78-87-5	1,2-Dichloropropane		10	U
10061-01-5	cis-1,3-Dichloropropene		10	U
79-01-6	Trichloroethene		10	U
124-48-1	Dibromochloromethane		10	U
79-00-5	1,1,2-Trichloroethane		10	U
71-43-2	Benzene		10	U
10061-02-6	Trans-1,3-Dichloropropene		10	U
75-25-2	Bromoform		10	U
108-10-1	4-Methyl-2-Pentanone		10	U
591-78-6	2-Hexanone		10	U
127-18-4	Tetrachloroethene		10	U
108-88-3	Toluene		10	U
79-34-5	1,1,2,2-Tetrachloroethane		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

1B

CLIENT SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

ACS-GWMW3S-02

DATE SAMPLED: 6/26/97

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970650316

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0701P05.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: decanted: (Y/N) Date Extracted: 06/30/97 (4)

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/02/97 (3)

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: CRQL MULTIPLIER = 1.00

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
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	3	J
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitrosodi-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
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	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C

CLIENT SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

ACS-GWMW3S-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970650316

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0701P05.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: decanted: (Y/N) Date Extracted: 06/30/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/02/97

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	ug/l	Q
51-28-5	2,4-Dinitrophenol		25	U
100-02-7	4-Nitrophenol	UJ	25	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		25	U
534-52-1	4,6-Dinitro-2-Methylphenol		25	U
86-30-6	N-Nitrosodiphenylamine		10	U
101-55-3	4-Bromophenyl-phenylether		10	U
118-74-1	Hexachlorobenzene		10	U
87-86-5	Pentachlorophenol		25	U
85-01-8	Phenanthrene		10	U
120-12-7	Anthracene		10	U
86-74-8	Carbazole		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		10	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

1F

CLIENT SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

ACS-GWMW3S-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970650316

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0701P05.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: decanted: (Y/N) Date Extracted: 06/30/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/02/97

Injection Volume: 2 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs Found: 3

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	Unknown	7.71	JN 2	J
	~~Unknown~~	~~8.53~~	~~B 6~~	~~JB~~
	Unknown	16.49	JN 3	J

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
ACS-GWMW3S-02

MW3S

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

DATE SAMPLED: 6/26/97

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970650316

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P4070197_043.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 06/27/97

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 06/30/97

Concentrated Extract Volume: 10000(uL) Date Analyzed: 07/11/97

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CRQL MULTIPLIER = 1.00

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	UJ	0.10	U
72-20-8	Endrin	UJ	0.10	U
33213-65-9	Endosulfan II		0.10	U
72-54-8	4,4'-DDD	UJ	0.10	U
1031-07-8	Endosulfan sulfate		0.10	U
50-29-3	4,4'-DDT	UJ	0.10	U
72-43-5	Methoxychlor		0.50	U
53494-70-5	Endrin ketone	UJ	0.10	U
7421-93-4	Endrin aldehyde	UJ	0.10	U
5103-71-9	alpha-Chlordane		0.050	U
5103-74-2	gamma-Chlordane		0.050	U
8001-35-2	Toxaphene		5.0	U
12674-11-2	Aroclor-1016		1.0	U
11104-28-2	Aroclor-1221		2.0	U
11141-16-5	Aroclor-1232		1.0	U
53469-21-9	Aroclor-1242		1.0	U
12672-29-6	Aroclor-1248		1.0	U
11097-69-1	Aroclor-1254		1.0	U
11096-82-5	Aroclor-1260		1.0	U

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

ACS-GWMW3S-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970650316

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0701111.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: not dec. Date Analyzed: 07/01/97

GC Column: DB-624 ID: 0.53(mm) Dilution Factor: 1.0

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

Number TICs Found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW4D-02 6-26-97

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-059 SDG No.: 06511

Matrix: (soil/water) WATER Lab Sample ID: 970651102

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0701510.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: not dec. Date Analyzed: 07/01/97

GC Column: DB-624 ID: .53(mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane UJ	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane UJ	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
108-88-3	Toluene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	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

FORM I VOA

VALIDATED

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW4S-02 6-26-97

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-059 SDG No.: 06511

Matrix: (soil/water) WATER Lab Sample ID: 970651105

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0701514.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: not dec. Date Analyzed: 07/01/97

GC Column: DB-624 ID: .53(mm) Dilution Factor: 10

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
74-87-3	Chloromethane	100	U
74-83-9	Bromomethane	100	U
75-01-4	Vinyl Chloride	100	U
75-00-3	Chloroethane	J 1300	
75-09-2	Methylene Chloride	100	U
67-64-1	Acetone	100	U
75-15-0	Carbon Disulfide	100	U
75-35-4	1,1-Dichloroethene	100	U
75-34-3	1,1-Dichloroethane	100	U
540-59-0	1,2-Dichloroethene (total)	15	J
67-66-3	Chloroform	100	U
107-06-2	1,2-Dichloroethane	UJ 100	U
78-93-3	2-Butanone	100	U
71-55-6	1,1,1-Trichloroethane	100	U
56-23-5	Carbon Tetrachloride	100	U
75-27-4	Bromodichloromethane	100	U
78-87-5	1,2-Dichloropropane	100	U
10061-01-5	cis-1,3-Dichloropropene	100	U
79-01-6	Trichloroethene	100	U
124-48-1	Dibromochloromethane	100	U
79-00-5	1,1,2-Trichloroethane	100	U
71-43-2	Benzene	190	
10061-02-6	Trans-1,3-Dichloropropene	100	U
75-25-2	Bromoform	100	U
108-10-1	4-Methyl-2-Pentanone	100	U
591-78-6	2-Hexanone	100	U
127-18-4	Tetrachloroethene	100	U
108-88-3	Toluene	100	U
79-34-5	1,1,2,2-Tetrachloroethane	100	U
108-90-7	Chlorobenzene	100	U
100-41-4	Ethylbenzene	100	U
100-42-5	Styrene	100	U
1330-20-7	Xylene (total)	100	U

FORM I VOA

VALIDATED

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW4D-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-059 SDG No.: 06511

Matrix: (soil/water) WATER Lab Sample ID: 970651102

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0707809.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: decanted: (Y/N) Date Extracted: 06/30/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/07/97

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
108-95-2	Phenol	8	J
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
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitrosodi-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
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	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW4D-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-059 SDG No.: 06511

Matrix: (soil/water) WATER Lab Sample ID: 970651102

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0707809.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: decanted: (Y/N) Date Extracted: 06/30/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/07/97

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	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	25	U
534-52-1	4,6-Dinitro-2-Methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	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	10	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

VALIDATED

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW4D-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-059 SDG No.: 06511

Matrix: (soil/water) WATER Lab Sample ID: 970651102

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0707809.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: decanted: (Y/N) Date Extracted: 06/30/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/07/97

Injection Volume: 2 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs Found: 5

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	UNKNOWN	7.98	3	J
	~~UNKNOWN~~	~~8.87~~	~~4~~	~~JB~~ R
000104-76-7	1-HEXANOL, 2-ETHYL-	10.14	6	JN
	UNKNOWN	11.54	25	J
000098-73-7	BENZOIC ACID, P-TERT-BUTYL-	17.40	2	JN

FORM I SV-TIC

VALIDATED

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW4D
ACS-GWMW4D-02

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-059 SDG No.: 06511

Matrix: (soil/water) WATER Lab Sample ID: 970651102

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P4071597_024.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 06/27/97

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 07/01/97

Concentrated Extract Volume: 10000(uL) Date Analyzed: 07/17/97

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

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	uJ	0.10	U
72-20-8	Endrin	uJ	0.10	U
33213-65-9	Endosulfan II		0.10	U
72-54-8	4,4'-DDD	uJ	0.10	U
1031-07-8	Endosulfan sulfate		0.10	U
50-29-3	4,4'-DDT	uJ	0.10	U
72-43-5	Methoxychlor		0.50	U
53494-70-5	Endrin ketone	uJ	0.10	U
7421-93-4	Endrin aldehyde	uJ	0.10	U
5103-71-9	alpha-Chlordane		0.050	U
5103-74-2	gamma-Chlordane		0.050	U
8001-35-2	Toxaphene		5.0	U
12674-11-2	Aroclor-1016		1.0	U
11104-28-2	Aroclor-1221		2.0	U
11141-16-5	Aroclor-1232		1.0	U
53469-21-9	Aroclor-1242		1.0	U
12672-29-6	Aroclor-1248		1.0	U
11097-69-1	Aroclor-1254		1.0	U
11096-82-5	Aroclor-1260		1.0	U

VALIDATED

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW4S-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-059 SDG No.: 06511

Matrix: (soil/water) WATER Lab Sample ID: 970651105

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0707812.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: decanted: (Y/N) Date Extracted: 06/30/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/07/97

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
108-95-2	Phenol	10	U
111-44-4	Bis(2-Chloroethyl)Ether	71	
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitrosodi-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
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	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

VALIDATED

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW4S-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-059 SDG No.: 06511

Matrix: (soil/water) WATER Lab Sample ID: 970651105

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0707812.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: decanted: (Y/N) Date Extracted: 06/30/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/07/97

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	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	25	U
534-52-1	4,6-Dinitro-2-Methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	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	10	U
56-55-3	Benzo(A)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	4	J
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

VALIDATED

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW4S-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-059 SDG No.: 06511

Matrix: (soil/water) WATER Lab Sample ID: 970651105

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0707812.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: decanted: (Y/N) Date Extracted: 06/30/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/07/97

Injection Volume: 2 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs Found: 20

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	UNKNOWN	8.84	33	J
	SUBSTITUTED PROPANOL ISOMER	9.67	24	J
	SUBSTITUTED PROPANOL ISOMER	9.76	39	J
	SUBSTITUTED PROPANOL ISOMER	9.80	20	J
	UNKNOWN	9.94	21	J
000873-94-9	CYCLOHEXANONE, 3,3,5-TRIMETHYL-	10.44	34	JN
000116-02-9	CYCLOHEXANOL, 3,3,5-TRIMETHY -	10.70	29	JN
	Unknown	11.56	20	J
	UNKNOWN	12.43	890	J
	UNKNOWN	12.68	17	J
	UNKNOWN	14.06	30	J
	UNKNOWN	14.09	16	J
	UNKNOWN	14.29	34	J
020324-32-7	2-PROPANOL, 1-(2-METHOXY-1-METHYL	14.69	19	JN
	UNKNOWN	15.69	28	J
	UNKNOWN	15.98	45	J
	UNKNOWN	16.67	17	J
000098-73-7	BENZOIC ACID, P-TERT-BUTYL-	17.67	16	JN
	UNKNOWN	18.83	19	J
000076-73-3	SECOBARBITAL ISOMER	21.45	23	J

VALIDATED

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW4S
ACS-GWMW4S-02

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-059 SDG No.: 06511

Matrix: (soil/water) WATER Lab Sample ID: 970651105

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P4071597_027.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 06/27/97

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 07/01/97

Concentrated Extract Volume: 10000(uL) Date Analyzed: 07/18/97

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

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	UJ	0.10	U
72-20-8	Endrin	UJ	0.10	U
33213-65-9	Endosulfan II		0.10	U
72-54-8	4,4'-DDD	UJ	0.10	U
1031-07-8	Endosulfan sulfate		0.10	U
50-29-3	4,4'-DDT	UJ	0.10	U
72-43-5	Methoxychlor		0.50	U
53494-70-5	Endrin ketone	UJ	0.10	U
7421-93-4	Endrin aldehyde	UJ	0.10	U
5103-71-9	alpha-Chlordane		0.050	U
5103-74-2	gamma-Chlordane		0.050	U
8001-35-2	Toxaphene		5.0	U
12674-11-2	Aroclor-1016		1.0	U
11104-28-2	Aroclor-1221		2.0	U
11141-16-5	Aroclor-1232		1.0	U
53469-21-9	Aroclor-1242		1.0	U
12672-29-6	Aroclor-1248		1.0	U
11097-69-1	Aroclor-1254		1.0	U
11096-82-5	Aroclor-1260		1.0	U

VALIDATED

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

ACS-GWMW4S-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-059 SDG No.: 06511

Matrix: (soil/water) WATER Lab Sample ID: 970651105

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0701514.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: not dec. Date Analyzed: 07/01/97

GC Column: DB-624 ID: .53(mm) Dilution Factor: 10.0

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

Number TICs Found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
000109-87-5	METHANE, DIMETHOXY-	5.48	75	JN
000109-99-9	FURAN, TETRAHYDRO-	9.63	760	JN

FORM I VOA-TIC

VALIDATED

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

ACS-GWMW4D-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-059 SDG No.: 06511

Matrix: (soil/water) WATER Lab Sample ID: 970651102

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0701510.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: not dec. Date Analyzed: 07/01/97

GC Column: DB-624 ID: .53(mm) Dilution Factor: 1.0

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

Number TICs Found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC

VALIDATED

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-[redacted]-02

Lab Name: IEA-[redacted]C Method: SOW 1/91

Lab Code: [redacted]A Case No.: 2240-064 SDG No.: 07050

Matrix: (soil/water) WA[redacted]R Lab Sample ID: 970705404

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0709J12.D

Level: (low/med) LOW Date Received: 07/02/97

% Moisture: not dec. Date Analyzed: 07/10/97

GC Column: DB-624 ID: 0.53(mm) Dilution Factor: [redacted]0

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

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/[redacted]

CAS NO.	COMPOUND			Q
74-87-3	Chloromethane		10	U
74-83-9	Bromomethane		10	U
75-01-4	[redacted]		[redacted]	
75-00-3	[redacted]	J	[redacted]	
75-09-2	[redacted]		[redacted]	
67-64-1	Acetone		10	U
75-15-0	Carbon Disulfide		10	U
75-35-4	1,1-Dichloroethene		10	U
75-34-3	1,1-Dichloroethane		10	U
540-59-0	[redacted]		[redacted]	
67-66-3	Chloroform		10	U
107-06-2	1,2-Dichloroethane	UJ	10	U
78-93-3	2-Butanone		10	U
71-55-6	1,1,1-Trichloroethane	UJ	10	U
56-23-5	Carbon Tetrachloride		10	U
75-27-4	Bromodichloromethane		10	U
78-87-5	1,2-Dichloropropane		10	U
10061-01-5	cis-1,3-Dichloropropene		10	U
79-01-6	Trichloroethene		10	U
124-48-1	Dibromochloromethane		10	U
79-00-5	1,1,2-Trichloroethane		10	U
71-43-2	[redacted]		[redacted]	
10061-02-6	Trans-1,3-Dichloropropene		10	U
75-25-2	Bromoform		10	U
108-10-1	4-Methyl-2-Pentanone		10	U
591-78-6	2-Hexanone		10	U
127-18-4	Tetrachloroethene		10	U
108-88-3	Toluene		10	U
79-34-5	1,1,2,2-Tetrachloroethane		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

FORM I VOA

VALIDATED

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-[redacted]-02

7/1/97

Lab Name: IEA-[redacted] Method: SOW 1/91

Lab Code: [redacted] Case No.: 2240-064 SDG No.: 07050

Matrix: (soil/water) WATER[redacted] Lab Sample ID: 970705403

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0709J11.D

Level: (low/med) LOW Date Received: 07/02/97

% Moisture: not dec. Date Analyzed: 07/10/97

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0[redacted]

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

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/[redacted]

CAS NO.	COMPOUND			Q
74-87-3	Chloromethane		10	U
74-83-9	Bromomethane		10	U
75-01-4	Vinyl Chloride		10	U
75-00-3	Chloroethane	UJ	10	U
75-09-2	Methylene Chloride		10	U
67-64-1	Acetone		10	U
75-15-0	Carbon Disulfide		10	U
75-35-4	1,1-Dichloroethene		10	U
75-34-3	1,1-Dichloroethane		10	U
540-59-0	1,2-Dichloroethene (total)		10	U
67-66-3	Chloroform		10	U
107-06-2	1,2-Dichloroethane	UJ	10	U
78-93-3	2-Butanone		10	U
71-55-6	1,1,1-Trichloroethane	UJ	10	U
56-23-5	Carbon Tetrachloride		10	U
75-27-4	Bromodichloromethane		10	U
78-87-5	1,2-Dichloropropane		10	U
10061-01-5	cis-1,3-Dichloropropene		10	U
79-01-6	Trichloroethene		10	U
124-48-1	Dibromochloromethane		10	U
79-00-5	1,1,2-Trichloroethane		10	U
71-43-2	Benzene		10	U
10061-02-6	Trans-1,3-Dichloropropene		10	U
75-25-2	Bromoform		10	U
108-10-1	4-Methyl-2-Pentanone		10	U
591-78-6	2-Hexanone		10	U
127-18-4	Tetrachloroethene		10	U
108-88-3	Toluene		10	U
79-34-5	1,1,2,2-Tetrachloroethane		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

FORM I VOA

VALIDATED

1A

CLIENT SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

ACS-[redacted]-02

7/1/97

Lab Name: IEA-[redacted] Method: SOW 1/91

Lab Code: [redacted] Case No.: 2240-064 SDG No.: 07050

Matrix: (soil/water) WAT[redacted] Lab Sample ID: 970705403

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0709J11.D

Level: (low/med) LOW Date Received: 07/02/97

% Moisture: not dec. Date Analyzed: 07/10/97

GC Column: DB-624 ID: 0.53(mm) Dilution Factor: 1.0[redacted]

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/[redacted]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	UJ	10	U
75-09-2	Methylene Chloride		10	U
67-64-1	Acetone		10	U
75-15-0	Carbon Disulfide		10	U
75-35-4	1,1-Dichloroethene		10	U
75-34-3	1,1-Dichloroethane		10	U
540-59-0	1,2-Dichloroethene (total)		10	U
67-66-3	Chloroform		10	U
107-06-2	1,2-Dichloroethane	UJ	10	U
78-93-3	2-Butanone		10	U
71-55-6	1,1,1-Trichloroethane	UJ	10	U
56-23-5	Carbon Tetrachloride		10	U
75-27-4	Bromodichloromethane		10	U
78-87-5	1,2-Dichloropropane		10	U
10061-01-5	cis-1,3-Dichloropropene		10	U
79-01-6	Trichloroethene		10	U
124-48-1	Dibromochloromethane		10	U
79-00-5	1,1,2-Trichloroethane		10	U
71-43-2	Benzene		10	U
10061-02-6	Trans-1,3-Dichloropropene		10	U
75-25-2	Bromoform		10	U
108-10-1	4-Methyl-2-Pentanone		10	U
591-78-6	2-Hexanone		10	U
127-18-4	Tetrachloroethene		10	U
108-88-3	Toluene		10	U
79-34-5	1,1,2,2-Tetrachloroethane		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

FORM I VOA

VALIDATED

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GW[redacted]-02

Lab Name: IEA-[redacted]C Method: SOW 1/91

Lab Code: [redacted]A Case No.: 2240-064 SDG No.: 07050

Matrix: (soil/water) W[redacted]R Lab Sample ID: 970705404

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0709J12.D

Level: (low/med) LOW Date Received: 07/02/97

% Moisture: not dec. Date Analyzed: 07/10/97

GC Column: DB-624 ID: 0.53(mm) Dilution Factor: [redacted]0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug[redacted]		Q
74-87-3	Chloromethane		10	U
74-83-9	Bromomethane		10	U
75-01-4	[redacted]		[redacted]	
75-00-3	[redacted]	J	[redacted]	
75-09-2	[redacted]		[redacted]	
67-64-1	Acetone		10	U
75-15-0	Carbon Disulfide		10	U
75-35-4	1,1-Dichloroethene		10	U
75-34-3	1,1-Dichloroethane		10	U
540-59-0	[redacted]		[redacted]	
67-66-3	Chloroform		10	U
107-06-2	1,2-Dichloroethane	UJ	10	U
78-93-3	2-Butanone		10	U
71-55-6	1,1,1-Trichloroethane	UJ	10	U
56-23-5	Carbon Tetrachloride		10	U
75-27-4	Bromodichloromethane		10	U
78-87-5	1,2-Dichloropropane		10	U
10061-01-5	cis-1,3-Dichloropropene		10	U
79-01-6	Trichloroethene		10	U
124-48-1	Dibromochloromethane		10	U
79-00-5	1,1,2-Trichloroethane		10	U
71-43-2	[redacted]		[redacted]	
10061-02-6	Trans-1,3-Dichloropropene		10	U
75-25-2	Bromoform		10	U
108-10-1	4-Methyl-2-Pentanone		10	U
591-78-6	2-Hexanone		10	U
127-18-4	Tetrachloroethene		10	U
108-88-3	Toluene		10	U
79-34-5	1,1,2,2-Tetrachloroethane		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

FORM I VOA

VALIDATED

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW6-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-064 SDG No.: 07050

Matrix: (soil/water) WATER Lab Sample ID: 970705404

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0710I12.D

Level: (low/med) LOW Date Received: 07/02/97

% Moisture: decanted: (Y/N) Date Extracted: 07/03/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/11/97

Injection Volume: 2 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) N pH:

Number TICs Found: 19

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	Unknown	10.16	30	J
	Unknown	11.05	82	J
	Unknown	13.18	21	J
	Unknown	13.45	4	J
	Unknown	14.11	10	J
	Unknown	14.43	4	J
	Unknown	16.28	6	J
000480-63-7	BENZOIC ACID, 2,4,6-TRIMETHY	16.52	15	JN
	Unknown	16.62	4	J
	Unknown	16.79	4	J
	Unknown	16.91	6	J
	Unknown	17.60	6	J
000101-10-0	PROPANOIC ACID, 2-(3-CHLOROP	18.71	12	JN
	Unknown	19.70	21	J
000934-34-9	2(3H)-BENZOTHIAZOLONE	19.88	12	JN
000080-39-7	BENZENESULFONAMIDE, N-ETHYL-	20.40	20	JN
000115-96-8	TRI(2-CHLOROETHYL) PHOSPHATE	20.83	6	JN
000309-43-3	SECOBARBITAL SODIUM	21.38	28	JN
000050-06-6	PHENOBARBITAL	23.45	15	JN

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW6-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-064 SDG No.: 07050

Matrix: (soil/water) WATER Lab Sample ID: 970705404

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0710I12.D

Level: (low/med) LOW Date Received: 07/02/97

% Moisture: decanted: (Y/N) Date Extracted: 07/03/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/11/97

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	UJ 50	U
132-64-9	Dibenzofuran	20	U
121-14-2	2,4-Dinitrotoluene	20	U
84-66-2	Diethylphthalate	20	U
7005-72-3	4-Chlorophenyl-phenylether	20	U
86-73-7	Fluorene	20	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-Methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine	20	U
101-55-3	4-Bromophenyl-phenylether	20	U
118-74-1	Hexachlorobenzene	20	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	20	U
120-12-7	Anthracene	20	U
86-74-8	Carbazole	20	U
84-74-2	Di-N-Butylphthalate	20	U
206-44-0	Fluoranthene	20	U
129-00-0	Pyrene	20	U
85-68-7	Butylbenzylphthalate	20	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(A)Anthracene	20	U
218-01-9	Chrysene	20	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	16	J
117-84-0	Di-N-Octylphthalate	20	U
205-99-2	Benzo(B)Fluoranthene	20	U
207-08-9	Benzo(K)Fluoranthene	20	U
50-32-8	Benzo(A)Pyrene	20	U
193-39-5	Indeno(1,2,3-Cd)Pyrene	20	U
53-70-3	Dibenz(A,H)Anthracene	20	U
191-24-2	Benzo(G,H,I)Perylene	20	U

VALIDATED

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW6-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-064 SDG No.: 07050

Matrix: (soil/water) WATER Lab Sample ID: 970705404

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0710I12.D

Level: (low/med) LOW Date Received: 07/02/97

% Moisture: decanted: (Y/N) Date Extracted: 07/03/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/11/97

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	ug/l	Q
108-95-2	[redacted]		[redacted]	
111-44-4	Bis(2-[redacted]ethyl)Ether		[redacted]	
95-57-8	2-Chlorophenol		20	U
541-73-1	1,3-Dichlorobenzene		20	U
106-46-7	1,4-Dichlorobenzene		20	U
95-50-1	1,2-Dichlorobenzene		20	U
95-48-7	2-Methylphenol		20	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	45	20	U
106-44-5	4-Methylphenol		20	U
621-64-7	N-Nitrosodi-N-Propylamine		20	U
67-72-1	Hexachloroethane		20	U
98-95-3	Nitrobenzene		20	U
78-59-1	Isophorone		20	U
88-75-5	2-Nitrophenol		20	U
105-67-9	2,4-Dimethylphenol		20	U
111-91-1	Bis(2-Chloroethoxy) Methane		20	U
120-83-2	2,4-Dichlorophenol		20	U
120-82-1	1,2,4-Trichlorobenzene		20	U
91-20-3	Naphthalene		20	U
106-47-8	4-Chloroaniline		20	U
87-68-3	Hexachlorobutadiene	45	20	U
59-50-7	4-Chloro-3-Methylphenol		20	U
91-57-6	2-Methylnaphthalene		20	U
77-47-4	Hexachlorocyclopentadiene	45	20	U
88-06-2	2,4,6-Trichlorophenol		20	U
95-95-4	2,4,5-Trichlorophenol		50	U
91-58-7	2-Chloronaphthalene		20	U
88-74-4	2-Nitroaniline		50	U
131-11-3	Dimethylphthalate		20	U
208-96-8	Acenaphthylene		20	U
606-20-2	2,6-Dinitrotoluene		20	U
99-09-2	3-Nitroaniline		50	U
83-32-9	Acenaphthene		20	U

FORM I SV-1

VALIDATED

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW6-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-064 SDG No.: 07050

Matrix: (soil/water) WATER Lab Sample ID: 970705404

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0710I12.D

Level: (low/med) LOW Date Received: 07/02/97

% Moisture: decanted: (Y/N) Date Extracted: 07/03/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/11/97

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	ug/l	Q
108-95-2	[redacted]		[redacted]	
111-44-4	[redacted]		[redacted]	
95-57-8	2-Chlorophenol		20	U
541-73-1	1,3-Dichlorobenzene		20	U
106-46-7	1,4-Dichlorobenzene		20	U
95-50-1	1,2-Dichlorobenzene		20	U
95-48-7	2-Methylphenol		20	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	45	20	U
106-44-5	4-Methylphenol		20	U
621-64-7	N-Nitrosodi-N-Propylamine		20	U
67-72-1	Hexachloroethane		20	U
98-95-3	Nitrobenzene		20	U
78-59-1	Isophorone		20	U
88-75-5	2-Nitrophenol		20	U
105-67-9	2,4-Dimethylphenol		20	U
111-91-1	Bis(2-Chloroethoxy) Methane		20	U
120-83-2	2,4-Dichlorophenol		20	U
120-82-1	1,2,4-Trichlorobenzene		20	U
91-20-3	Naphthalene		20	U
106-47-8	4-Chloroaniline		20	U
87-68-3	Hexachlorobutadiene	45	20	U
59-50-7	4-Chloro-3-Methylphenol		20	U
91-57-6	2-Methylnaphthalene		20	U
77-47-4	Hexachlorocyclopentadiene	45	20	U
88-06-2	2,4,6-Trichlorophenol		20	U
95-95-4	2,4,5-Trichlorophenol		50	U
91-58-7	2-Chloronaphthalene		20	U
88-74-4	2-Nitroaniline		50	U
131-11-3	Dimethylphthalate		20	U
208-96-8	Acenaphthylene		20	U
606-20-2	2,6-Dinitrotoluene		20	U
99-09-2	3-Nitroaniline		50	U
83-32-9	Acenaphthene		20	U

FORM I SV-1

VALIDATED

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW6-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-064 SDG No.: 07050

Matrix: (soil/water) WATER Lab Sample ID: 970705404

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0710I12.D

Level: (low/med) LOW Date Received: 07/02/97

% Moisture: decanted: (Y/N) Date Extracted: 07/03/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/11/97

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	UJ 50	U
132-64-9	Dibenzofuran	20	U
121-14-2	2,4-Dinitrotoluene	20	U
84-66-2	Diethylphthalate	20	U
7005-72-3	4-Chlorophenyl-phenylether	20	U
86-73-7	Fluorene	20	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-Methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine	20	U
101-55-3	4-Bromophenyl-phenylether	20	U
118-74-1	Hexachlorobenzene	20	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	20	U
120-12-7	Anthracene	20	U
86-74-8	Carbazole	20	U
84-74-2	Di-N-Butylphthalate	20	U
206-44-0	Fluoranthene	20	U
129-00-0	Pyrene	20	U
85-68-7	Butylbenzylphthalate	20	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(A)Anthracene	20	U
218-01-9	Chrysene	20	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	16	J
117-84-0	Di-N-Octylphthalate	20	U
205-99-2	Benzo(B)Fluoranthene	20	U
207-08-9	Benzo(K)Fluoranthene	20	U
50-32-8	Benzo(A)Pyrene	20	U
193-39-5	Indeno(1,2,3-Cd)Pyrene	20	U
53-70-3	Dibenz(A,H)Anthracene	20	U
191-24-2	Benzo(G,H,I)Perylene	20	U

VALIDATED

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW6-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-064 SDG No.: 07050

Matrix: (soil/water) WATER Lab Sample ID: 970705404

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0710I12.D

Level: (low/med) LOW Date Received: 07/02/97

% Moisture: decanted: (Y/N) Date Extracted: 07/03/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/11/97

Injection Volume: 2 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) N pH:

Number TICs Found: 19

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	Unknown	10.16	30	J
	Unknown	11.05	82	J
	Unknown	13.18	21	J
	Unknown	13.45	4	J
	Unknown	14.11	10	J
	Unknown	14.43	4	J
	Unknown	16.28	6	J
000480-63-7	BENZOIC ACID, 2,4,6-TRIMETHY	16.52	15	JN
	Unknown	16.62	4	J
	Unknown	16.79	4	J
	Unknown	16.91	8	J
	Unknown	17.60	6	J
000101-10-0	PROPANOIC ACID, 2-(3-CHLOROP	18.71	12	JN
	Unknown	19.70	21	J
000934-34-9	2(3H)-BENZOTHIAZOLONE	19.88	12	JN
000080-39-7	BENZENESULFONAMIDE, N-ETHYL-	20.40	20	JN
000115-96-8	TRI(2-CHLOROETHYL) PHOSPHATE	20.83	6	JN
000309-43-3	SECOBARBITAL SODIUM	21.38	28	JN
000050-06-6	PHENOBARBITAL	23.45	15	JN

VALIDATED

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW6
HCS-GWMW6-02

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-064 SDG No.: 07050

Matrix: (soil/water) WATER Lab Sample ID: 970705404

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P4071597_053.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 07/02/97

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 07/03/97

Concentrated Extract Volume: 10000(uL) Date Analyzed: 07/18/97

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

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	UJ	0.10	U
72-55-9	4,4'-DDE	UJ	0.10	U
72-20-8	Endrin	UJ	0.10	U
33213-65-9	Endosulfan II		0.10	U
72-54-8	4,4'-DDD	UJ	0.10	U
1031-07-8	Endosulfan sulfate		0.10	U
50-29-3	4,4'-DDT	UJ	0.10	U
72-43-5	Methoxychlor		0.50	U
53494-70-5	Endrin ketone	UJ	0.10	U
7421-93-4	Endrin aldehyde	UJ	0.10	U
5103-71-9	alpha-Chlordane		0.050	U
5103-74-2	gamma-Chlordane		0.050	U
8001-35-2	Toxaphene		5.0	U
12674-11-2	Aroclor-1016		1.0	U
11104-28-2	Aroclor-1221		2.0	U
11141-16-5	Aroclor-1232		1.0	U
53469-21-9	Aroclor-1242		1.0	U
12672-29-6	Aroclor-1248		1.0	U
11097-69-1	Aroclor-1254		1.0	U
11096-82-5	Aroclor-1260		1.0	U

VALIDATED

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW6
HCS-GWMW6-02

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-064 SDG No.: 07050

Matrix: (soil/water) WATER Lab Sample ID: 970705404

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P4071597_053.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 07/02/97

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 07/03/97

Concentrated Extract Volume: 10000(uL) Date Analyzed: 07/18/97

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

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	UJ	0.10	U
72-55-9	4,4'-DDE	UJ	0.10	U
72-20-8	Endrin	UJ	0.10	U
33213-65-9	Endosulfan II		0.10	U
72-54-8	4,4'-DDD	UJ	0.10	U
1031-07-8	Endosulfan sulfate		0.10	U
50-29-3	4,4'-DDT	UJ	0.10	U
72-43-5	Methoxychlor		0.50	U
53494-70-5	Endrin ketone	UJ	0.10	U
7421-93-4	Endrin aldehyde	UJ	0.10	U
5103-71-9	alpha-Chlordane		0.050	U
5103-74-2	gamma-Chlordane		0.050	U
8001-35-2	Toxaphene		5.0	U
12674-11-2	Aroclor-1016		1.0	U
11104-28-2	Aroclor-1221		2.0	U
11141-16-5	Aroclor-1232		1.0	U
53469-21-9	Aroclor-1242		1.0	U
12672-29-6	Aroclor-1248		1.0	U
11097-69-1	Aroclor-1254		1.0	U
11096-82-5	Aroclor-1260		1.0	U

VALIDATED

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

ACS-GWTB06-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-064 SDG No.: 07050

Matrix: (soil/water) WATER Lab Sample ID: 970705403

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0709J11.D

Level: (low/med) LOW Date Received: 07/02/97

% Moisture: not dec. Date Analyzed: 07/10/97

GC Column: DB-624 ID: 0.53(mm) Dilution Factor: 1.0

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

Number TICs Found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC

VALIDATED

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

ACS-GWTB06-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-064 SDG No.: 07050

Matrix: (soil/water) WATER Lab Sample ID: 970705403

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0709J11.D

Level: (low/med) LOW Date Received: 07/02/97

% Moisture: not dec. Date Analyzed: 07/10/97

GC Column: DB-624 ID: 0.53(mm) Dilution Factor: 1.0

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

Number TICs Found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC

VALIDATED

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

ACS-GWMW6-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-064 SDG No.: 07050

Matrix: (soil/water) WATER Lab Sample ID: 970705404

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0709J12.D

Level: (low/med) LOW Date Received: 07/02/97

% Moisture: not dec. Date Analyzed: 07/10/97

GC Column: DB-624 ID: 0.53(mm) Dilution Factor: 1.0

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

Number TICs Found: 5

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
593-70-4	CHLOROFLUOROMETHANE	2.61	17	JN
	UNKNOWN HYDROCARBON	3.89	8	J
000060-29-7	ETHER	4.19	50	JN
	UNKNOWN HYDROCARBON	4.72	8	J
001066-40-6	SILANOL, TRIMETHYL-	8.51	6	JN

FORM I VOA-TIC

VALIDATED

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

ACS-GWMW6-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-064 SDG No.: 07050

Matrix: (soil/water) WATER Lab Sample ID: 970705404

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0709J12.D

Level: (low/med) LOW Date Received: 07/02/97

% Moisture: not dec. Date Analyzed: 07/10/97

GC Column: DB-624 ID: 0.53(mm) Dilution Factor: 1.0

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

Number TICs Found: 5

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
593-70-4	CHLOROFLUOROMETHANE	2.61	17	JN
	UNKNOWN HYDROCARBON	3.89	8	J
000060-29-7	ETHER	4.19	50	JN
	UNKNOWN HYDROCARBON	4.72	8	J
001066-40-6	SILANOL, TRIMETHYL-	8.51	6	JN

FORM I VOA-TIC

VALIDATED

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW11-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-054 6/24/97 SDG No.: 06448

Matrix: (soil/water) WATER Lab Sample ID: 970644804

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0626106.D

Level: (low/med) LOW Date Received: 06/25/97

% Moisture: not dec. Date Analyzed: 06/26/97

GC Column: DB-624 ID: .53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	ug/l	Q
74-87-3	Chloromethane		10	U
74-83-9	Bromomethane		10	U
75-01-4	Vinyl Chloride		10	U
75-00-3	Chloroethane	UJ	10	U
75-09-2	Methylene Chloride		10	U
67-64-1	Acetone		10	U
75-15-0	Carbon Disulfide		10	U
75-35-4	1,1-Dichloroethene		10	U
75-34-3	1,1-Dichloroethane		10	U
540-59-0	1,2-Dichloroethene (total)		10	U
67-66-3	Chloroform		10	U
107-06-2	1,2-Dichloroethane	UJ	10	U
78-93-3	2-Butanone		10	U
71-55-6	1,1,1-Trichloroethane		10	U
56-23-5	Carbon Tetrachloride		10	U
75-27-4	Bromodichloromethane		10	U
78-87-5	1,2-Dichloropropane		10	U
10061-01-5	cis-1,3-Dichloropropene		10	U
79-01-6	Trichloroethene		10	U
124-48-1	Dibromochloromethane		10	U
79-00-5	1,1,2-Trichloroethane		10	U
71-43-2	Benzene		10	U
10061-02-6	Trans-1,3-Dichloropropene		10	U
75-25-2	Bromoform		10	U
108-10-1	4-Methyl-2-Pentanone		10	U
591-78-6	2-Hexanone		10	U
127-18-4	Tetrachloroethene		1	J
108-88-3	Toluene		10	U
79-34-5	1,1,2,2-Tetrachloroethane		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

FORM I VOA

VALIDATED

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW11-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-054 SDG No.: 06448

Matrix: (soil/water) WATER Lab Sample ID: 970644804

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0702809.D

Level: (low/med) LOW Date Received: 06/25/97

% Moisture: decanted: (Y/N) Date Extracted: 06/26/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/03/97

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
108-95-2	Phenol	5	J
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
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitrosodi-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
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	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

VALIDATED

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW11-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-054 SDG No.: 06448

Matrix: (soil/water) WATER Lab Sample ID: 970644804

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0702809.D

Level: (low/med) LOW Date Received: 06/25/97

% Moisture: decanted: (Y/N) Date Extracted: 06/26/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/03/97

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	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	25	U
534-52-1	4,6-Dinitro-2-Methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-N-But[illegible]phthalate	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	10	U
56-55-3	Benzo(A)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	7	J
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

FORM I SV-2

VALIDATED

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW11-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-054 SDG No.: 06448

Matrix: (soil/water) WATER Lab Sample ID: 970644804

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0702809.D

Level: (low/med) LOW Date Received: 06/25/97

% Moisture: decanted: (Y/N) Date Extracted: 06/26/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/03/97

Injection Volume: 2 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs Found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	UNKNOWN	9.01	3	J
000104-76-7	1-HEXANOL, 2-ETHYL-	10.27	3	JN

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW11
ACS-GWMW11-02

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-054 SDG No.: 06448

Matrix: (soil/water) WATER Lab Sample ID: 970644804

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P2070197_057.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 06/25/97

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 06/27/97

Concentrated Extract Volume: 10000(uL) Date Analyzed: 07/10/97

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

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
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

VALIDATED

1E

CLIENT SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

ACS-GWMW11-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-054 SDG No.: 06448

Matrix: (soil/water) WATER Lab Sample ID: 970644804

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0626106.D

Level: (low/med) LOW Date Received: 06/25/97

% Moisture: not dec. Date Analyzed: 06/26/97

GC Column: DB-624 ID: .53(mm) Dilution Factor: 1.0

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

Number TICs Found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW12-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-054 6/24/97 SDG No.: 06448

Matrix: (soil/water) WATER Lab Sample ID: 970645008

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0626110.D

Level: (low/med) LOW Date Received: 06/25/97

% Moisture: not dec. Date Analyzed: 06/26/97

GC Column: DB-624 ID: 0.53(mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	6	J
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	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	2	J
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
108-88-3	Toluene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-90-7	Chlorobenzene	6	J
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

FORM I VOA

VALIDATED

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW12-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-054 SDG No.: 06448

Matrix: (soil/water) WATER Lab Sample ID: 970645008

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0703804.D

Level: (low/med) LOW Date Received: 06/25/97

% Moisture: decanted: (Y/N) Date Extracted: 06/26/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/03/97

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
108-95-2	Phenol	7	J
111-44-4	Bis(2-Chloroethyl)Ether	20	U
95-57-8	2-Chlorophenol	20	U
541-73-1	1,3-Dichlorobenzene	20	U
106-46-7	1,4-Dichlorobenzene	20	U
95-50-1	1,2-Dichlorobenzene	20	U
95-48-7	2-Methylphenol	20	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	76	
106-44-5	4-Methylphenol	20	U
621-64-7	N-Nitrosodi-N-Propylamine	20	U
67-72-1	Hexachloroethane	20	U
98-95-3	Nitrobenzene	20	U
78-59-1	Isophorone	20	U
88-75-5	2-Nitrophenol	20	U
105-67-9	2,4-Dimethylphenol	20	U
111-91-1	Bis(2-Chloroethoxy) Methane	20	U
120-83-2	2,4-Dichlorophenol	20	U
120-82-1	1,2,4-Trichlorobenzene	20	U
91-20-3	Naphthalene	20	U
106-47-8	4-Chloroaniline	20	U
87-68-3	Hexachlorobutadiene	20	U
59-50-7	4-Chloro-3-Methylphenol	20	U
91-57-6	2-Methylnaphthalene	20	U
77-47-4	Hexachlorocyclopentadiene	20	U
88-06-2	2,4,6-Trichlorophenol	20	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	20	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethylphthalate	20	U
208-96-8	Acenaphthylene	20	U
606-20-2	2,6-Dinitrotoluene	20	U
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	20	U

VALIDATED

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW12-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-054 SDG No.: 06448

Matrix: (soil/water) WATER Lab Sample ID: 970645008

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0703804.D

Level: (low/med) LOW Date Received: 06/25/97

% Moisture: decanted: (Y/N) Date Extracted: 06/26/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/03/97

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	20	U
121-14-2	2,4-Dinitrotoluene	20	U
84-66-2	Diethylphthalate	20	U
7005-72-3	4-Chlorophenyl-phenylether	20	U
86-73-7	Fluorene	20	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-Methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine	20	U
101-55-3	4-Bromophenyl-phenylether	20	U
118-74-1	Hexachlorobenzene	20	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	20	U
120-12-7	Anthracene	20	U
86-74-8	Carbazole	20	U
84-74-2	Di-N-Butylphthalate	20	U
206-44-0	Fluoranthene	20	U
129-00-0	Pyrene	20	U
85-68-7	Butylbenzylphthalate	20	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(A)Anthracene	20	U
218-01-9	Chrysene	20	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	20	U
117-84-0	Di-N-Octylphthalate	20	U
205-99-2	Benzo(B)Fluoranthene	20	U
207-08-9	Benzo(K)Fluoranthene	20	U
50-32-8	Benzo(A)Pyrene	20	U
193-39-5	Indeno(1,2,3-Cd)Pyrene	20	U
53-70-3	Dibenz(A,H)Anthracene	20	U
191-24-2	Benzo(G,H,I)Perylene	20	U

VALIDATED

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW12-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-054 SDG No.: 06448

Matrix: (soil/water) WATER Lab Sample ID: 970645008

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0703804.D

Level: (low/med) LOW Date Received: 06/25/97

% Moisture: decanted: (Y/N) Date Extracted: 06/26/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/03/97

Injection Volume: 2 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) N pH:

Number TICs Found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	UNKNOWN	14.72	13	J

VALIDATED

FORM I SV-TIC

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW12
ACS-GWMW12-02

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-054 SDG No.: 06448

Matrix: (soil/water) WATER Lab Sample ID: 970645008

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P2070197_064.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 06/25/97

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 06/27/97

Concentrated Extract Volume: 10000(uL) Date Analyzed: 07/11/97

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

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
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

VALIDATED

1E

CLIENT SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

ACS-GWMW12-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-054 SDG No.: 06448

Matrix: (soil/water) WATER Lab Sample ID: 970645008

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0626110.D

Level: (low/med) LOW Date Received: 06/25/97

% Moisture: not dec. Date Analyzed: 06/26/97

GC Column: DB-624 ID: 0.53(mm) Dilution Factor: 1.0

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

Number TICs Found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
039638-32-9	BIS(2-CHLOROISOPROPYL) ETHER	24.33	39	JN
	UNKNOWN HYDROCARBON	27.03	7	J

VALIDATED

FORM I VOA-TIC

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW13-02 6-27-97

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-059 SDG No.: 06511

Matrix: (soil/water) WATER Lab Sample ID: 970702313

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0706112.D

Level: (low/med) LOW Date Received: 06/28/97

% Moisture: not dec. Date Analyzed: 07/06/97

GC Column: DB-624 ID: 0.53(mm) Dilution Factor: 5.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
74-87-3	Chloromethane	50	U
74-83-9	Bromomethane	50	U
75-01-4	Vinyl Chloride	50	U
75-00-3	Chloroethane	J 570	
75-09-2	Methylene Chloride	50	U
67-64-1	Acetone	50	U
75-15-0	Carbon Disulfide	50	U
75-35-4	1,1-Dichloroethene	50	U
75-34-3	1,1-Dichloroethane	50	U
540-59-0	1,2-Dichloroethene (total)	50	U
67-66-3	Chloroform	50	U
107-06-2	1,2-Dichloroethane	UJ 50	U
78-93-3	2-Butanone	50	U
71-55-6	1,1,1-Trichloroethane	50	U
56-23-5	Carbon Tetrachloride	50	U
75-27-4	Bromodichloromethane	50	U
78-87-5	1,2-Dichloropropane	50	U
10061-01-5	cis-1,3-Dichloropropene	50	U
79-01-6	Trichloroethene	50	U
124-48-1	Dibromochloromethane	50	U
79-00-5	1,1,2-Trichloroethane	50	U
71-43-2	Benzene	610	
10061-02-6	Trans-1,3-Dichloropropene	50	U
75-25-2	Bromoform	50	U
108-10-1	4-Methyl-2-Pentanone	50	U
591-78-6	2-Hexanone	50	U
127-18-4	Tetrachloroethene	50	U
108-88-3	Toluene	50	U
79-34-5	1,1,2,2-Tetrachloroethane	50	U
108-90-7	Chlorobenzene	50	U
100-41-4	Ethylbenzene	50	U
100-42-5	Styrene	50	U
1330-20-7	Xylene (total)	50	U

FORM I VOA

VALIDATED

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW13-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-059 SDG No.: 06511

Matrix: (soil/water) WATER Lab Sample ID: 970702313

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0708808.D

Level: (low/med) LOW Date Received: 06/28/97

% Moisture: decanted: (Y/N) Date Extracted: 07/03/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/09/97

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
108-95-2	Phenol	23	
111-44-4	Bis(2-Chloroethyl)Ether	2	J
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitrosodi-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
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	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

VALIDATED

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW13-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-059 SDG No.: 06511

Matrix: (soil/water) WATER Lab Sample ID: 970702313

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0708808.D

Level: (low/med) LOW Date Received: 06/28/97

% Moisture: decanted: (Y/N) Date Extracted: 07/03/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/09/97

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	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	25	U
534-52-1	4,6-Dinitro-2-Methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	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	10	U
56-55-3	Benzo(A)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	u 17	
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

VALIDATED

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW13-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-059 SDG No.: 06511

Matrix: (soil/water) WATER Lab Sample ID: 970702313

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0708808.D

Level: (low/med) LOW Date Received: 06/28/97

% Moisture: decanted: (Y/N) Date Extracted: 07/03/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/09/97

Injection Volume: 2 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs Found: 17

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
015980-15-1	1,4-OXATHIANE	7.15	4	JN
000111-96-6	ETHANE, 1,1'-OXYBIS[2-METHOXY-	8.50	3	JN
	SUBSTITUTED PROPANOL ISOMER	9.49	2	J
	SUBSTITUTED PROPANOL ISOMER	9.55	4	J
	UNKNOWN	9.92	2	J
	UNKNOWN	10.95	10	J
	UNKNOWN	11.74	3	J
	UNKNOWN	12.57	4	J
	UNKNOWN	12.64	4	J
001696-20-4	MORPHOLINE, 4-ACETYL-	12.93	4	JN
	UNKNOWN	14.04	3	J
	SUBSTITUTED PROPANOL ISOMER	14.42	2	J
000611-01-8	BENZOIC ACID, 2,4-DIMETHYL-	15.33	5	JN
000480-63-7	BENZOIC ACID, 2,4,6-TRIMETHYL-	16.32	2	JN
	SUBSTITUTED BENZENE	16.55	2	J
	UNKNOWN	19.01	10	J
	UNKNOWN	19.71	3	J

FORM I SV-TIC

VALIDATED

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW13
ACS-GWMW13-02

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-059 SDG No.: 06511

Matrix: (soil/water) WATER Lab Sample ID: 970702313

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P4071597_038.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 06/28/97

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 07/02/97

Concentrated Extract Volume: 10000(uL) Date Analyzed: 07/18/97

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

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	UJ	0.10	U
72-20-8	Endrin	UJ	0.10	U
33213-65-9	Endosulfan II		0.10	U
72-54-8	4,4'-DDD	UJ	0.10	U
1031-07-8	Endosulfan sulfate		0.10	U
50-29-3	4,4'-DDT	UJ	0.10	U
72-43-5	Methoxychlor		0.50	U
53494-70-5	Endrin ketone	UJ	0.10	U
7421-93-4	Endrin aldehyde	UJ	0.10	U
5103-71-9	alpha-Chlordane		0.050	U
5103-74-2	gamma-Chlordane		0.050	U
8001-35-2	Toxaphene		5.0	U
12674-11-2	Aroclor-1016		1.0	U
11104-28-2	Aroclor-1221		2.0	U
11141-16-5	Aroclor-1232		1.0	U
53469-21-9	Aroclor-1242		1.0	U
12672-29-6	Aroclor-1248		1.0	U
11097-69-1	Aroclor-1254		1.0	U
11096-82-5	Aroclor-1260		1.0	U

VALIDATED

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

ACS-GWMW13-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-059 SDG No.: 06511

Matrix: (soil/water) WATER Lab Sample ID: 970702313

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0706112.D

Level: (low/med) LOW Date Received: 06/28/97

% Moisture: not dec. Date Analyzed: 07/06/97

GC Column: DB-624 ID: 0.53(mm) Dilution Factor: 5.0

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

Number TICs Found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
000060-29-7	ETHER	4.16	300	JN

FORM I VOA-TIC

VALIDATED

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW14-02 6-27-97

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-059 SDG No.: 06511

Matrix: (soil/water) WATER Lab Sample ID: 970704716

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0709104.D

Level: (low/med) LOW Date Received: 07/01/97

% Moisture: not dec. Date Analyzed: 07/09/97

GC Column: DB-624 ID: 0.53(mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
74-87-3	Chloromethane	2	J
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	UJ 10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	U 10 8	J
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	UJ 10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	1	J
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
108-88-3	Toluene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	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

FORM I VOA

VALIDATED

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW14-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-059 SDG No.: 06511

Matrix: (soil/water) WATER Lab Sample ID: 970704716

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0708810.D

Level: (low/med) LOW Date Received: 07/01/97

% Moisture: decanted: (Y/N) Date Extracted: 07/03/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/09/97

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
108-95-2	Phenol	10	U
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
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitrosodi-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
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	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

VALIDATED

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW14-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-059 SDG No.: 06511

Matrix: (soil/water) WATER Lab Sample ID: 970704716

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0708810.D

Level: (low/med) LOW Date Received: 07/01/97

% Moisture: decanted: (Y/N) Date Extracted: 07/03/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/09/97

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	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	25	U
534-52-1	4,6-Dinitro-2-Methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	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	10	U
56-55-3	Benzo(A)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	il 11	
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

VALIDATED

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW14-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-059 SDG No.: 06511

Matrix: (soil/water) WATER Lab Sample ID: 970704716

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0708810.D

Level: (low/med) LOW Date Received: 07/01/97

% Moisture: decanted: (Y/N) Date Extracted: 07/03/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/09/97

Injection Volume: 2 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs Found: 8

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	UNKNOWN	8.75	4	J
	UNKNOWN	13.72	3	J
	UNKNOWN	14.00	4	J
	UNKNOWN	14.50	17	J
000098-73-7	BENZOIC ACID, P-TERT-BUTYL-	17.25	2	JN
000134-62-3	DIETHYLTOLUAMIDE	18.49	2	JN
	UNKNOWN	22.18	5	J
	UNKNOWN	27.00	4	J

FORM I SV-TIC

VALIDATED

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW14
ACS-GWMW14-02

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-059 SDG No.: 06511

Matrix: (soil/water) WATER Lab Sample ID: 970704716

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P4071597_041.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 07/01/97

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 07/03/97

Concentrated Extract Volume: 10000(uL) Date Analyzed: 07/18/97

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

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	UJ	0.10	U
72-20-8	Endrin	UJ	0.10	U
33213-65-9	Endosulfan II		0.10	U
72-54-8	4,4'-DDD	UJ	0.10	U
1031-07-8	Endosulfan sulfate		0.10	U
50-29-3	4,4'-DDT	UJ	0.10	U
72-43-5	Methoxychlor		0.50	U
53494-70-5	Endrin ketone	UJ	0.10	U
7421-93-4	Endrin aldehyde	UJ	0.10	U
5103-71-9	alpha-Chlordane		0.050	U
5103-74-2	gamma-Chlordane		0.050	U
8001-35-2	Toxaphene		5.0	U
12674-11-2	Aroclor-1016		1.0	U
11104-28-2	Aroclor-1221		2.0	U
11141-16-5	Aroclor-1232		1.0	U
53469-21-9	Aroclor-1242		1.0	U
12672-29-6	Aroclor-1248		1.0	U
11097-69-1	Aroclor-1254		1.0	U
11096-82-5	Aroclor-1260		1.0	U

VALIDATED

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

ACS-GWMW14-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-059 SDG No.: 06511

Matrix: (soil/water) WATER Lab Sample ID: 970704716

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0709104.D

Level: (low/med) LOW Date Received: 07/01/97

% Moisture: not dec. Date Analyzed: 07/09/97

GC Column: DB-624 ID: 0.53(mm) Dilution Factor: 1.0

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

Number TICs Found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	UNKNOWN HYDROCARBON	23.54	5	J

FORM I VOA-TIC

VALIDATED

VOLATILE ORGANICS ANALYSIS DATA SHEET

ACS-GWMW15-02

DATE SAMPLED: 6/25/97

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970647801

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0627106.D

Level: (low/med) LOW Date Received: 06/26/97 (1)

% Moisture: not dec. Date Analyzed: 06/27/97 (2)

GC Column: DB-624 ID: 0.53(mm) Dilution Factor: 1.0

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

CRQL MULTIPLIER = 1.00

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

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW15-02

DATE SAMPLED: 6/25/97

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970647801

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 7021403.D

Level: (low/med) LOW Date Received: 06/26/97

% Moisture: decanted: (Y/N) Date Extracted: 06/27/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/02/97

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: CRQL MULTIPLIER = 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
108-95-2	Phenol	4 11	
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
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitrosodi-N-Propylamine	10	U
67-72-1	Hexachloroethane	43 10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	Bis(2-Chloroethoxy) Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW15-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970647801

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 7021403.D

Level: (low/med) LOW Date Received: 06/26/97

% Moisture: decanted: (Y/N) Date Extracted: 06/27/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/02/97

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	UJ 25	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	25	U
534-52-1	4,6-Dinitro-2-Methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	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	10	U
56-55-3	Benzo(A)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	12	
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

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW15-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970647801

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 7021403.D

Level: (low/med) LOW Date Received: 06/26/97

% Moisture: decanted: (Y/N) Date Extracted: 06/27/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/02/97

Injection Volume: 2 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs Found: 5

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	Unknown	9.66	JN 4	J
000112-36-7	ETHANE, 1,1'-OXYBIS[2-ETHOXY	10.60	3	JN
	Unknown	10.98	3	J
	Unknown	13.45	3	J
000050-06-6	PHENOBARBITAL	22.11	7	JN

000112-36-7 ETHANE, 1,1'-OXYBIS[2-ETHOXY-]

FORM I SV-TIC

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
ACS-GWMW15-02

MW15

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

DATE SAMPLED: 6/25/97

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970647801

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P4070197_023.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 06/26/97

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 06/28/97 (3)

Concentrated Extract Volume: 10000(uL) Date Analyzed: 07/10/97 (13)

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CRQL MULTIPLIER = 1.00

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	UJ 0.10	U
72-20-8	Endrin	UJ 0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	UJ 0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	UJ 0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	UJ 0.10	U
7421-93-4	Endrin aldehyde	UJ 0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

ACS-GWMW15-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970647801

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0627106.D

Level: (low/med) LOW Date Received: 06/26/97

% Moisture: not dec. Date Analyzed: 06/27/97

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs Found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
000075-45-6	METHANE, CHLORODIFLUORO-	2.24	JN 7	JN
	UNKNOWN ALCOHOL	23.51	5	J

FORM I VOA-TIC

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW18-02

DATE SAMPLED: 6/25/97

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970647805

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0627110.D

Level: (low/med) LOW Date Received: 06/26/97 ①

% Moisture: not dec. Date Analyzed: 06/27/97 ②

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CRQL MULTIPLIER = 1.00

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

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW18-02

DATE SAMPLED: 6/25/97

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970647805

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 7021407.D

Level: (low/med) LOW Date Received: 06/26/97

% Moisture: decanted: (Y/N) Date Extracted: 06/27/97 (2)

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/02/97 (6)

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: CRQL MULTIPLIER = 1.00

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
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitrosodi-N-Propylamine	10	U
67-72-1	Hexachloroethane	UJ 10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	Bis(2-Chloroethoxy) Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	UJ 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	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C

CLIENT SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

ACS-GWMW18-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970647805

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 7021407.D

Level: (low/med) LOW Date Received: 06/26/97

% Moisture: decanted: (Y/N) Date Extracted: 06/27/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/02/97

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	ug/l	Q
51-28-5	2,4-Dinitrophenol		25	U
100-02-7	4-Nitrophenol	uJ	25	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		25	U
534-52-1	4,6-Dinitro-2-Methylphenol		25	U
86-30-6	N-Nitrosodiphenylamine		10	U
101-55-3	4-Bromophenyl-phenylether		10	U
118-74-1	Hexachlorobenzene		10	U
87-86-5	Pentachlorophenol		25	U
85-01-8	Phenanthrene		10	U
120-12-7	Anthracene		10	U
86-74-8	Carbazole		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		10	U
56-55-3	Benzo(A)Anthracene		10	U
218-01-9	Chrysene		10	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	U	15	
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

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW18-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970647805

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 7021407.D

Level: (low/med) LOW Date Received: 06/26/97

% Moisture: decanted: (Y/N) Date Extracted: 06/27/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/02/97

Injection Volume: 2 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs Found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I SV-TIC

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
ACS-GWMW18-02

MW18

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

DATE SAMPLED: 6/25/97

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970647805

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P4070197_027.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 06/26/97

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 06/28/97 (3)

Concentrated Extract Volume: 10000(uL) Date Analyzed: 07/10/97 (13)

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CRQL MULTIPLIER = 1.00

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	UJ	0.10	U
72-20-8	Endrin	UJ	0.10	U
33213-65-9	Endosulfan II		0.10	U
72-54-8	4,4'-DDD	UJ	0.10	U
1031-07-8	Endosulfan sulfate		0.10	U
50-29-3	4,4'-DDT	UJ	0.10	U
72-43-5	Methoxychlor		0.50	U
53494-70-5	Endrin ketone	UJ	0.10	U
7421-93-4	Endrin aldehyde	UJ	0.10	U
5103-71-9	alpha-Chlordane		0.050	U
5103-74-2	gamma-Chlordane		0.050	U
8001-35-2	Toxaphene		5.0	U
12674-11-2	Aroclor-1016		1.0	U
11104-28-2	Aroclor-1221		2.0	U
11141-16-5	Aroclor-1232		1.0	U
53469-21-9	Aroclor-1242		1.0	U
12672-29-6	Aroclor-1248		1.0	U
11097-69-1	Aroclor-1254		1.0	U
11096-82-5	Aroclor-1260		1.0	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

ACS-GWMW18-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970647805

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0627110.D

Level: (low/med) LOW Date Received: 06/26/97

% Moisture: not dec. Date Analyzed: 06/27/97

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs Found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS [redacted]

6/30/97

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-064 SDG No.: 07050

Matrix: (soil/water) WATER Lab Sample ID: 970705001

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0709J06.D

Level: (low/med) LOW Date Received: 07/01/97

% Moisture: not dec. Date Analyzed: 07/10/97

GC Column: DB-624 ID: .53(mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	[redacted]	5 [redacted]	
75-09-2	Methylene Chloride	10	U
67-64-1	[redacted]	[redacted]	
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	45 10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	[redacted]	[redacted]	
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform [redacted]	10	U
108-10-1	[redacted]	[redacted]	
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
108-88-3	Toluene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	45 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

FORM I VOA

VALIDATED

1A

CLIENT SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

ACS-[redacted]

6/30/97

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-064 SDG No.: 07050

Matrix: (soil/water) WATER Lab Sample ID: 970705001

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0709J06.D

Level: (low/med) LOW Date Received: 07/01/97

% Moisture: not dec. Date Analyzed: 07/10/97

GC Column: DB-624 ID: .53(mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	[redacted]	J [redacted]	
75-09-2	Methylene Chloride	10	U
67-64-1	[redacted]	[redacted]	
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	UJ 10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	[redacted]	[redacted]	
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	[redacted]	[redacted]	
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
108-88-3	Toluene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	UJ 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

FORM I VOA

VALIDATED

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW19-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-064 SDG No.: 07050

Matrix: (soil/water) WATER Lab Sample ID: 970705001

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0710H07.D

Level: (low/med) LOW Date Received: 07/01/97

% Moisture: decanted: (Y/N) Date Extracted: 07/03/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/10/97

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	ug/l	Q
108-95-2	[redacted]	ND U	[redacted]	[redacted]
111-44-4	[redacted]		[redacted]	[redacted]
95-57-8	2-Chlorophenol	UJ	10	U
541-73-1	1,3-Dichlorobenzene		10	U
106-46-7	1,4-Dichlorobenzene		10	U
95-50-1	1,2-Dichlorobenzene		10	U
95-48-7	2-Methylphenol	UJ	10	U
108-60-1	2,2'-Oxybis(1-Chloropropane)		10	U
106-44-5	4-Methylphenol		10	U
621-64-7	N-Nitrosodi-N-Propylamine		10	U
67-72-1	Hexachloroethane		10	U
98-95-3	Nitrobenzene	UJ	10	U
78-59-1	Isophorone		10	U
88-75-5	2-Nitrophenol	UJ	10	U
105-67-9	2,4-Dimethylphenol	UJ	10	U
111-91-1	Bis(2-Chloroethoxy) Methane		10	U
120-83-2	2,4-Dichlorophenol		10	U
120-82-1	1,2,4-Trichlorobenzene		10	U
91-20-3	Naphthalene		10	U
106-47-8	4-Chloroaniline		10	U
87-68-3	Hexachlorobutadiene	UJ	10	U
59-50-7	4-Chloro-3-Methylphenol	UJ	10	U
91-57-6	2-Methylnaphthalene		10	U
77-47-4	Hexachlorocyclopentadiene	UJ	10	U
88-06-2	2,4,6-Trichlorophenol	UJ	10	U
95-95-4	2,4,5-Trichlorophenol	UJ	25	U
91-58-7	2-Chloronaphthalene		10	U
88-74-4	2-Nitroaniline	UJ	25	U
131-11-3	Dimethylphthalate		10	U
208-96-8	Acenaphthylene		10	U
606-20-2	2,6-Dinitrotoluene		10	U
99-09-2	3-Nitroaniline		25	U
83-32-9	Acenaphthene		10	U

FORM I SV-1

VALIDATED

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW19-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-064 SDG No.: 07050

Matrix: (soil/water) WATER Lab Sample ID: 970705001

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0710H07.D

Level: (low/med) LOW Date Received: 07/01/97

% Moisture: decanted: (Y/N) Date Extracted: 07/03/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/10/97

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
51-28-5	2,4-Dinitrophenol	UJ 25	U
100-02-7	4-Nitrophenol	UJ 25	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	25	U
534-52-1	4,6-Dinitro-2-Methylphenol	UJ 25	U
86-30-6	N-Nitrosodiphenylamine	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	UJ 25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	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	10	U
56-55-3	Benzo(A)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	~~Bis(2-Ethylhexyl)Phthalate~~	~~14~~	
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

FORM I SV-2

VALIDATED

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW19-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-064 SDG No.: 07050

Matrix: (soil/water) WATER Lab Sample ID: 970705001

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0710H07.D

Level: (low/med) LOW Date Received: 07/01/97

% Moisture: decanted: (Y/N) Date Extracted: 07/03/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/10/97

Injection Volume: 2 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs Found: 11

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	Unknown	7.19	6	J
	Unknown	11.50	7	J
	Unknown	13.12	4	J
	Unknown	14.06	8	J
	Unknown	16.24	17	J
000098-73-7	BENZOIC ACID, P-TERT-BUTYL-	17.48	6	JN
000101-10-0	PROPANOIC ACID, 2-(3-CHLOROP	18.66	8	JN
	Unknown	19.62	6	J
000080-39-7	BENZENESULFONAMIDE, N-ETHYL-	20.31	3	JN
000309-43-3	SECOBARBITAL, SODIUM	21.31	5	JN
000050-06-6	PHENOBARBITAL	23.42	27	JN

VALIDATED

FORM I SV-TIC

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW19-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-064 SDG No.: 07050

Matrix: (soil/water) WATER Lab Sample ID: 970705001

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0710H07.D

Level: (low/med) LOW Date Received: 07/01/97

% Moisture: decanted: (Y/N) Date Extracted: 07/03/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/10/97

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	ug/l	Q
108-95-2	[redacted]	ND U	[redacted]	[redacted]
111-44-4	[redacted]		[redacted]	[redacted]
95-57-8	2-Chlorophenol	UJ	10	U
541-73-1	1,3-Dichlorobenzene		10	U
106-46-7	1,4-Dichlorobenzene		10	U
95-50-1	1,2-Dichlorobenzene		10	U
95-48-7	2-Methylphenol	UJ	10	U
108-60-1	2,2'-Oxybis(1-Chloropropane)		10	U
106-44-5	4-Methylphenol		10	U
621-64-7	N-Nitrosodi-N-Propylamine		10	U
67-72-1	Hexachloroethane		10	U
98-95-3	Nitrobenzene	UJ	10	U
78-59-1	Isophorone		10	U
88-75-5	2-Nitrophenol	UJ	10	U
105-67-9	2,4-Dimethylphenol	UJ	10	U
111-91-1	Bis(2-Chloroethoxy) Methane		10	U
120-83-2	2,4-Dichlorophenol		10	U
120-82-1	1,2,4-Trichlorobenzene		10	U
91-20-3	Naphthalene		10	U
106-47-8	4-Chloroaniline		10	U
87-68-3	Hexachlorobutadiene	UJ	10	U
59-50-7	4-Chloro-3-Methylphenol	UJ	10	U
91-57-6	2-Methylnaphthalene		10	U
77-47-4	Hexachlorocyclopentadiene	UJ	10	U
88-06-2	2,4,6-Trichlorophenol	UJ	10	U
95-95-4	2,4,5-Trichlorophenol	UJ	25	U
91-58-7	2-Chloronaphthalene		10	U
88-74-4	2-Nitroaniline	UJ	25	U
131-11-3	Dimethylphthalate		10	U
208-96-8	Acenaphthylene		10	U
606-20-2	2,6-Dinitrotoluene		10	U
99-09-2	3-Nitroaniline		25	U
83-32-9	Acenaphthene		10	U

FORM I SV-1

VALIDATED

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW19-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-064 SDG No.: 07050

Matrix: (soil/water) WATER Lab Sample ID: 970705001

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0710H07.D

Level: (low/med) LOW Date Received: 07/01/97

% Moisture: decanted: (Y/N) Date Extracted: 07/03/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/10/97

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
51-28-5	2,4-Dinitrophenol	UJ 25	U
100-02-7	4-Nitrophenol	UJ 25	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	25	U
534-52-1	4,6-Dinitro-2-Methylphenol	UJ 25	U
86-30-6	N-Nitrosodiphenylamine	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	UJ 25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	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	10	U
56-55-3	Benzo(A)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	~~Bis(2-Ethylhexyl)Phthalate~~	~~14~~	
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

FORM I SV-2

VALIDATED

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW19-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-064 SDG No.: 07050

Matrix: (soil/water) WATER Lab Sample ID: 970705001

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0710H07.D

Level: (low/med) LOW Date Received: 07/01/97

% Moisture: decanted: (Y/N) Date Extracted: 07/03/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/10/97

Injection Volume: 2 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs Found: 11

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	Unknown	7.19	8	J
	Unknown	11.50	7	J
	Unknown	13.12	4	J
	Unknown	14.06	8	J
	Unknown	16.24	17	J
000098-73-7	BENZOIC ACID, P-TERT-BUTYL-	17.48	6	JN
000101-10-0	PROPANOIC ACID, 2-(3-CHLOROP	18.66	8	JN
	Unknown	19.62	6	J
000080-39-7	BENZENESULFONAMIDE, N-ETHYL-	20.31	3	JN
000309-43-3	SECOBARBITAL SODIUM	21.31	5	JN
000050-06-6	PHENOBARBITAL	23.42	27	JN

VALIDATED

FORM I SV-TIC

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW19
ACS-GWMW19-02

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-064 SDG No.: 07050

Matrix: (soil/water) WATER Lab Sample ID: 970705001

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P4071597_050.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 07/01/97

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 07/03/97

Concentrated Extract Volume: 10000(uL) Date Analyzed: 07/18/97

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

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	UJ 0.10	U
72-55-9	4,4'-DDE	UJ 0.10	U
72-20-8	Endrin	UJ 0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	UJ 0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	UJ 0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	UJ 0.10	U
7421-93-4	Endrin aldehyde	UJ 0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

VALIDATED

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW19
ACS-GWMW19-02

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-064 SDG No.: 07050

Matrix: (soil/water) WATER Lab Sample ID: 970705001

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P4071597_050.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 07/01/97

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 07/03/97

Concentrated Extract Volume: 10000(uL) Date Analyzed: 07/18/97

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

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	UJ	0.10	U
72-55-9	4,4'-DDE	UJ	0.10	U
72-20-8	Endrin	UJ	0.10	U
33213-65-9	Endosulfan II		0.10	U
72-54-8	4,4'-DDD	UJ	0.10	U
1031-07-8	Endosulfan sulfate		0.10	U
50-29-3	4,4'-DDT	UJ	0.10	U
72-43-5	Methoxychlor		0.50	U
53494-70-5	Endrin ketone	UJ	0.10	U
7421-93-4	Endrin aldehyde	UJ	0.10	U
5103-71-9	alpha-Chlordane		0.050	U
5103-74-2	gamma-Chlordane		0.050	U
8001-35-2	Toxaphene		5.0	U
12674-11-2	Aroclor-1016		1.0	U
11104-28-2	Aroclor-1221		2.0	U
11141-16-5	Aroclor-1232		1.0	U
53469-21-9	Aroclor-1242		1.0	U
12672-29-6	Aroclor-1248		1.0	U
11097-69-1	Aroclor-1254		1.0	U
11096-82-5	Aroclor-1260		1.0	U

VALIDATED

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

ACS-GWMW19-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-064 SDG No.: 07050

Matrix: (soil/water) WATER Lab Sample ID: 970705001

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0709J06.D

Level: (low/med) LOW Date Received: 07/01/97

% Moisture: not dec. Date Analyzed: 07/10/97

GC Column: DB-624 ID: .53(mm) Dilution Factor: 1.0

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

Number TICs Found: 4

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
000075-45-6	METHANE, CHLORODIFLUORO-	2.24	7	JN
000060-29-7	ETHER	4.17	6	JN
	UNKNOWN HYDROCARBON	25.45	5	J
	UNKNOWN HYDROCARBON	27.03	14	J

FORM I VOA-TIC

VALIDATED

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

ACS-GWMW19-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-064 SDG No.: 07050

Matrix: (soil/water) WATER Lab Sample ID: 970705001

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0709J06.D

Level: (low/med) LOW Date Received: 07/01/97

% Moisture: not dec. Date Analyzed: 07/10/97

GC Column: DB-624 ID: .53(mm) Dilution Factor: 1.0

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

Number TICs Found: 4

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
000075-45-6	METHANE, CHLORODIFLUORO-	2.24	7	JN
000060-29-7	ETHER	4.17	6	JN
	UNKNOWN HYDROCARBON	25.45	5	J
	UNKNOWN HYDROCARBON	27.03	14	J

FORM I VOA-TIC

VALIDATED

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW37-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-054 6/25/97 SDG No.: 06448

Matrix: (soil/water) WATER Lab Sample ID: 970647619

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0706105.D

Level: (low/med) LOW Date Received: 06/26/97

% Moisture: not dec. Date Analyzed: 07/06/97

GC Column: DB-624 ID: 0.53(mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
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	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
108-88-3	Toluene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	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

FORM I VOA

VALIDATED

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW37-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-054 SDG No.: 06448

Matrix: (soil/water) WATER Lab Sample ID: 970647619

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0707804.D

Level: (low/med) LOW Date Received: 06/26/97

% Moisture: decanted: (Y/N) Date Extracted: 06/30/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/07/97

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
108-95-2	Phenol	23	
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
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitrosodi-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
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	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

VALIDATED

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW37-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-054 SDG No.: 06448

Matrix: (soil/water) WATER Lab Sample ID: 970647619

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0707804.D

Level: (low/med) LOW Date Received: 06/26/97

% Moisture: decanted: (Y/N) Date Extracted: 06/30/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/07/97

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	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	25	U
534-52-1	4,6-Dinitro-2-Methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	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	10	U
56-55-3	Benzo(A)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	34	
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

VALIDATED

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW37-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-054 SDG No.: 06448

Matrix: (soil/water) WATER Lab Sample ID: 970647619

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0707804.D

Level: (low/med) LOW Date Received: 06/26/97

% Moisture: decanted: (Y/N) Date Extracted: 06/30/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/07/97

Injection Volume: 2 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs Found: 4

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
000104-76-7	1-HEXANOL, 2-ETHYL-	10.14	11	JN
	UNKNOWN	13.76	3	J
	UNKNOWN	14.17	6	J
000080-05-7	PHENOL, 4,4'-(1-METHYLETHYLI	25.25	2	JN

VALIDATED

FORM I SV-TIC

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW37
HCS-GW/MW37-02

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-054 SDG No.: 06448

Matrix: (soil/water) WATER Lab Sample ID: 970647619

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P4070197_067.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 06/26/97

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 07/01/97

Concentrated Extract Volume: 10000(uL) Date Analyzed: 07/12/97

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

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
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

ACS-GWMW37-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-054 SDG No.: 06448

Matrix: (soil/water) WATER Lab Sample ID: 970647619

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0706105.D

Level: (low/med) LOW Date Received: 06/26/97

% Moisture: not dec. Date Analyzed: 07/06/97

GC Column: DB-624 ID: 0.53(mm) Dilution Factor: 1.0

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

Number TICs Found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
000075-65-0	2-PROPANOL, 2-METHYL-	5.97	12	JN
000123-91-1	1,4-DIOXANE	12.27	35	JN

VALIDATED

FORM I VOA-TIC

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW38-02

DATE SAMPLED: 6/25/97

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970647804

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0701505.D

Level: (low/med) LOW Date Received: 06/26/97 (1)

% Moisture: not dec. Date Analyzed: 07/01/97 (6)

GC Column: DB-624 ID: .53 (mm) Dilution Factor: 1.0

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

CRQL MULTIPLIER = 1.00

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

CAS NO.	COMPOUND	ug/l	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
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	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
108-88-3	Toluene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	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

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW38-02

DATE SAMPLED: 6/25/97

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970647804

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 7071412.D

Level: (low/med) LOW Date Received: 06/26/97

% Moisture: decanted: (Y/N) Date Extracted: 06/27/97 (2)

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/07/97 (11)

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: CRQL MULTIPLIER = 1.00

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

CAS NO.	COMPOUND		ug/l	Q
108-95-2	Phenol	10U	5	J
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
95-50-1	1,2-Dichlorobenzene		10	U
95-48-7	2-Methylphenol		10	U
108-60-1	2,2'-Oxybis(1-Chloropropane)		10	U
106-44-5	4-Methylphenol		10	U
621-64-7	N-Nitrosodi-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
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	4J	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		25	U
91-58-7	2-Chloronaphthalene		10	U
88-74-4	2-Nitroaniline		25	U
131-11-3	Dimethylphthalate		10	U
208-96-8	Acenaphthylene		10	U
606-20-2	2,6-Dinitrotoluene		10	U
99-09-2	3-Nitroaniline		25	U
83-32-9	Acenaphthene		10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW38-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970647804

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 7071412.D

Level: (low/med) LOW Date Received: 06/26/97

% Moisture: decanted: (Y/N) Date Extracted: 06/27/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/07/97

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	ug/l	Q
51-28-5	2,4-Dinitrophenol		25	U
100-02-7	4-Nitrophenol	UJ	25	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		25	U
534-52-1	4,6-Dinitro-2-Methylphenol		25	U
86-30-6	N-Nitrosodiphenylamine		10	U
101-55-3	4-Bromophenyl-phenylether		10	U
118-74-1	Hexachlorobenzene		10	U
87-86-5	Pentachlorophenol		25	U
85-01-8	Phenanthrene		10	U
120-12-7	Anthracene		10	U
86-74-8	Carbazole		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		10	U
56-55-3	Benzo(A)Anthracene		10	U
218-01-9	Chrysene		10	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	104	5	J
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

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW38-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970647804

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 7071412.D

Level: (low/med) LOW Date Received: 06/26/97

% Moisture: decanted: (Y/N) Date Extracted: 06/27/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/07/97

Injection Volume: 2 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs Found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	~~Unknown~~	~~8.45~~	~~B 3~~	~~J~~

FORM I SV-TIC

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
ACS-GWMW38-02

MW38

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

DATE SAMPLED 6/25/97

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970647804

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P4070197_026.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 06/26/97

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 06/28/97 (3)

Concentrated Extract Volume: 10000(uL) Date Analyzed: 07/10/97 (13)

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CRQL MULTIPLIER = 1.00

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	UJ	0.10	U
72-20-8	Endrin	UJ	0.10	U
33213-65-9	Endosulfan II		0.10	U
72-54-8	4,4'-DDD	UJ	0.10	U
1031-07-8	Endosulfan sulfate		0.10	U
50-29-3	4,4'-DDT	UJ	0.10	U
72-43-5	Methoxychlor		0.50	U
53494-70-5	Endrin ketone	UJ	0.10	U
7421-93-4	Endrin aldehyde	UJ	0.10	U
5103-71-9	alpha-Chlordane		0.050	U
5103-74-2	gamma-Chlordane		0.050	U
8001-35-2	Toxaphene		5.0	U
12674-11-2	Aroclor-1016		1.0	U
11104-28-2	Aroclor-1221		2.0	U
11141-16-5	Aroclor-1232		1.0	U
53469-21-9	Aroclor-1242		1.0	U
12672-29-6	Aroclor-1248		1.0	U
11097-69-1	Aroclor-1254		1.0	U
11096-82-5	Aroclor-1260		1.0	U

CLIENT SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

ACS-GWMW38-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970647804

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0701505.D

Level: (low/med) LOW Date Received: 06/26/97

% Moisture: not dec. Date Analyzed: 07/01/97

GC Column: DB-624 ID: .53 (mm) Dilution Factor: 1.0

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

Number TICs Found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW39-02

Lab Name: IEA-NC Method: SOW 1/91

DATE SAMPLED: 6/25/97

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970647911

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0627116.D

Level: (low/med) LOW Date Received: 06/26/97

% Moisture: not dec. Date Analyzed: 06/27/97

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CRQL MULTIPLIER = 1.00

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

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW39-02

DATE SAMPLED: 6/25/97

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970647911

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 7021413.D

Level: (low/med) LOW Date Received: 06/26/97

% Moisture: decanted: (Y/N) Date Extracted: 06/27/97 ②

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/02/97 ⑥

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: CRQL MULTIPLIER = 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	ug/l	Q
108-95-2	Phenol	104	3	J
111-44-4	Bis(2-Chloroethyl)Ether		1	J
95-57-8	2-Chlorophenol		10	U
541-73-1	1,3-Dichlorobenzene		10	U
106-46-7	1,4-Dichlorobenzene		10	U
95-50-1	1,2-Dichlorobenzene		10	U
95-48-7	2-Methylphenol		10	U
108-60-1	2,2'-Oxybis(1-Chloropropane)		10	U
106-44-5	4-Methylphenol		10	U
621-64-7	N-Nitrosodi-N-Propylamine		10	U
67-72-1	Hexachloroethane	UJ	10	U
98-95-3	Nitrobenzene		10	U
78-59-1	Isophorone		10	U
88-75-5	2-Nitrophenol		10	U
105-67-9	2,4-Dimethylphenol		10	U
111-91-1	Bis(2-Chloroethoxy) Methane		10	U
120-83-2	2,4-Dichlorophenol		10	U
120-82-1	1,2,4-Trichlorobenzene		10	U
91-20-3	Naphthalene		10	U
106-47-8	4-Chloroaniline		10	U
87-68-3	Hexachlorobutadiene	UJ	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		25	U
91-58-7	2-Chloronaphthalene		10	U
88-74-4	2-Nitroaniline		25	U
131-11-3	Dimethylphthalate		10	U
208-96-8	Acenaphthylene		10	U
606-20-2	2,6-Dinitrotoluene		10	U
99-09-2	3-Nitroaniline		25	U
83-32-9	Acenaphthene		10	U

1C

CLIENT SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

ACS-GWMW39-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970647911

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 7021413.D

Level: (low/med) LOW Date Received: 06/26/97

% Moisture: decanted: (Y/N) Date Extracted: 06/27/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/02/97

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	ug/l	Q
51-28-5	2,4-Dinitrophenol		25	U
100-02-7	4-Nitrophenol	UJ	25	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		25	U
534-52-1	4,6-Dinitro-2-Methylphenol		25	U
86-30-6	N-Nitrosodiphenylamine		10	U
101-55-3	4-Bromophenyl-phenylether		10	U
118-74-1	Hexachlorobenzene		10	U
87-86-5	Pentachlorophenol		25	U
85-01-8	Phenanthrene		10	U
120-12-7	Anthracene		10	U
86-74-8	Carbazole		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		10	U
56-55-3	Benzo(A)Anthracene		10	U
218-01-9	Chrysene		10	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	U	18	
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

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW39-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970647911

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 7021413.D

Level: (low/med) LOW Date Received: 06/26/97

% Moisture: decanted: (Y/N) Date Extracted: 06/27/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/02/97

Injection Volume: 2 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs Found: 3

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
000112-36-7	ETHANE, 1,1'-OXYBIS[2-ETHOXY	10.61	JN 2	JN
	Substituted Benzene Isomer	16.85	4	J
	Unknown	25.58	5	J

000112-36-7 ETHANE, 1,1'-OXYBIS[2-ETHOXY-]

FORM I SV-TIC

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
ACS-GWMW39-02

MW39

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

DATE SAMPLED: 6/25/97

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970647911

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P4070197_036.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 06/26/97

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 06/28/97 (3)

Concentrated Extract Volume: 10000(uL) Date Analyzed: 07/11/97 (13)

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CRQL MULTIPLIER = 1.00

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	UJ 0.10	U
72-20-8	Endrin	UJ 0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	UJ 0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	UJ 0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	UJ 0.10	U
7421-93-4	Endrin aldehyde	UJ 0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

CLIENT SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

ACS-GWMW39-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970647911

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0627116.D

Level: (low/med) LOW Date Received: 06/26/97

% Moisture: not dec. Date Analyzed: 06/27/97

GC Column: DB-624 ID: 0.53(mm) Dilution Factor: 1.0

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

Number TICs Found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW40-02 6-26-97

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-059 SDG No.: 06511

Matrix: (soil/water) WATER Lab Sample ID: 970651103

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0701512.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: not dec. Date Analyzed: 07/01/97

GC Column: DB-624 ID: .53(mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	ug/l	Q
74-87-3	Chloromethane		10	U
74-83-9	Bromomethane		10	U
75-01-4	Vinyl Chloride		10	U
75-00-3	Chloroethane	UJ	10	U
75-09-2	Methylene Chloride		10	U
67-64-1	Acetone		10	U
75-15-0	Carbon Disulfide		10	U
75-35-4	1,1-Dichloroethene		10	U
75-34-3	1,1-Dichloroethane		10	U
540-59-0	1,2-Dichloroethene (total)		10	U
67-66-3	Chloroform		10	U
107-06-2	1,2-Dichloroethane	UJ	10	U
78-93-3	2-Butanone		10	U
71-55-6	1,1,1-Trichloroethane		10	U
56-23-5	Carbon Tetrachloride		10	U
75-27-4	Bromodichloromethane		10	U
78-87-5	1,2-Dichloropropane		10	U
10061-01-5	cis-1,3-Dichloropropene		10	U
79-01-6	Trichloroethene		10	U
124-48-1	Dibromochloromethane		10	U
79-00-5	1,1,2-Trichloroethane		10	U
71-43-2	Benzene		10	U
10061-02-6	Trans-1,3-Dichloropropene		10	U
75-25-2	Bromoform		10	U
108-10-1	4-Methyl-2-Pentanone		10	U
591-78-6	2-Hexanone		10	U
127-18-4	Tetrachloroethene		10	U
108-88-3	Toluene		10	U
79-34-5	1,1,2,2-Tetrachloroethane		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

FORM I VOA

VALIDATED

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW40-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-059 SDG No.: 06511

Matrix: (soil/water) WATER Lab Sample ID: 970651103

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0707810.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: decanted: (Y/N) Date Extracted: 06/30/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/07/97

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
108-95-2	Phenol	4	J
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
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitrosodi-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
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	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

VALIDATED

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW40-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-059 SDG No.: 06511

Matrix: (soil/water) WATER Lab Sample ID: 970651103

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0707810.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: decanted: (Y/N) Date Extracted: 06/30/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/07/97

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	ug/l	Q
51-28-5	2,4-Dinitrophenol		25	U
100-02-7	4-Nitrophenol		25	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		25	U
534-52-1	4,6-Dinitro-2-Methylphenol		25	U
86-30-6	N-Nitrosodiphenylamine		10	U
101-55-3	4-Bromophenyl-phenylether		10	U
118-74-1	Hexachlorobenzene		10	U
87-86-5	Pentachlorophenol		25	U
85-01-8	Phenanthrene		10	U
120-12-7	Anthracene		10	U
86-74-8	Carbazole		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		10	U
56-55-3	Benzo(A)Anthracene		10	U
218-01-9	Chrysene		10	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	u	13	
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

FORM I SV-2

VALIDATED

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW40-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-059 SDG No.: 06511

Matrix: (soil/water) WATER Lab Sample ID: 970651103

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0707810.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: decanted: (Y/N) Date Extracted: 06/30/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/07/97

Injection Volume: 2 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs Found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	~~UNKNOWN~~	~~8.87~~	~~3~~	~~JB~~ R
000149-57-5	HEXANOIC ACID, 2-ETHYL-	11.74	2	JN

FORM I SV-TIC

VALIDATED

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW40
ACS-GWMW40-02

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-059 SDG No.: 06511

Matrix: (soil/water) WATER Lab Sample ID: 970651103

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P4071597_025.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 06/27/97

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 07/01/97

Concentrated Extract Volume: 10000(uL) Date Analyzed: 07/17/97

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

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	UJ	0.10	U
72-20-8	Endrin	UJ	0.10	U
33213-65-9	Endosulfan II		0.10	U
72-54-8	4,4'-DDD	UJ	0.10	U
1031-07-8	Endosulfan sulfate		0.10	U
50-29-3	4,4'-DDT	UJ	0.10	U
72-43-5	Methoxychlor		0.50	U
53494-70-5	Endrin ketone	UJ	0.10	U
7421-93-4	Endrin aldehyde	UJ	0.10	U
5103-71-9	alpha-Chlordane		0.050	U
5103-74-2	gamma-Chlordane		0.050	U
8001-35-2	Toxaphene		5.0	U
12674-11-2	Aroclor-1016		1.0	U
11104-28-2	Aroclor-1221		2.0	U
11141-16-5	Aroclor-1232		1.0	U
53469-21-9	Aroclor-1242		1.0	U
12672-29-6	Aroclor-1248		1.0	U
11097-69-1	Aroclor-1254		1.0	U
11096-82-5	Aroclor-1260		1.0	U

VALIDATED

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

ACS-GWMW40-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-059 SDG No.: 06511

Matrix: (soil/water) WATER Lab Sample ID: 970651103

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0701512.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: not dec. Date Analyzed: 07/01/97

GC Column: DB-624 ID: .53(mm) Dilution Factor: 1.0

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

Number TICs Found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC

VALIDATED

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW41-02

Lab Name: IEA-NC Method: SOW 1/91

DATE SAMPLED: 6/25/97

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970647908

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0701506.D

Level: (low/med) LOW Date Received: 06/26/97 ①

% Moisture: not dec. Date Analyzed: 07/01/97 ⑥

GC Column: DB-624 ID: .53 (mm) Dilution Factor: 1.0

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

CRQL MULTIPLIER = 1.00

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

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW41-02

DATE SAMPLED: 6/25/97

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970647908

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 7021410.D

Level: (low/med) LOW Date Received: 06/26/97

% Moisture: decanted: (Y/N) Date Extracted: 06/27/97 (2)

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/02/97 (6)

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: CRQL MULTIPLIER=1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	ug/l	Q
108-95-2	Phenol	104	4	J
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
95-50-1	1,2-Dichlorobenzene		10	U
95-48-7	2-Methylphenol		10	U
108-60-1	2,2'-Oxybis(1-Chloropropane)		10	U
106-44-5	4-Methylphenol		10	U
621-64-7	N-Nitrosodi-N-Propylamine		10	U
67-72-1	Hexachloroethane	UJ	10	U
98-95-3	Nitrobenzene		10	U
78-59-1	Isophorone		10	U
88-75-5	2-Nitrophenol		10	U
105-67-9	2,4-Dimethylphenol		10	U
111-91-1	Bis(2-Chloroethoxy) Methane		10	U
120-83-2	2,4-Dichlorophenol		10	U
120-82-1	1,2,4-Trichlorobenzene		10	U
91-20-3	Naphthalene		10	U
106-47-8	4-Chloroaniline		10	U
87-68-3	Hexachlorobutadiene	UJ	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		25	U
91-58-7	2-Chloronaphthalene		10	U
88-74-4	2-Nitroaniline		25	U
131-11-3	Dimethylphthalate		10	U
208-96-8	Acenaphthylene		10	U
606-20-2	2,6-Dinitrotoluene		10	U
99-09-2	3-Nitroaniline		25	U
83-32-9	Acenaphthene		10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW41-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970647908

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 7021410.D

Level: (low/med) LOW Date Received: 06/26/97

% Moisture: decanted: (Y/N) Date Extracted: 06/27/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/02/97

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	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	25	U
534-52-1	4,6-Dinitro-2-Methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	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	10	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

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW41-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970647908

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 7021410.D

Level: (low/med) LOW Date Received: 06/26/97

% Moisture: decanted: (Y/N) Date Extracted: 06/27/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/02/97

Injection Volume: 2 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs Found: 4

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	Unknown	7.64	IN 3	J
	Unknown	7.87	2	J
	Unknown	8.25	4	J
	Unknown	13.88	3	J

FORM I SV-TIC

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
ACS-GWMW41-02

MW41

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

DATE SAMPLED: 6/25/97

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970647908

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P4070197_030.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 06/26/97

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 06/28/97 (3)

Concentrated Extract Volume: 10000(uL) Date Analyzed: 07/10/97 (13)

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CRQL MULTIPLIER = 1.00

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	UJ	0.10	U
72-20-8	Endrin	UJ	0.10	U
33213-65-9	Endosulfan II		0.10	U
72-54-8	4,4'-DDD	UJ	0.10	U
1031-07-8	Endosulfan sulfate		0.10	U
50-29-3	4,4'-DDT	UJ	0.10	U
72-43-5	Methoxychlor		0.50	U
53494-70-5	Endrin ketone	UJ	0.10	U
7421-93-4	Endrin aldehyde	UJ	0.10	U
5103-71-9	alpha-Chlordane		0.050	U
5103-74-2	gamma-Chlordane		0.050	U
8001-35-2	Toxaphene		5.0	U
12674-11-2	Aroclor-1016		1.0	U
11104-28-2	Aroclor-1221		2.0	U
11141-16-5	Aroclor-1232		1.0	U
53469-21-9	Aroclor-1242		1.0	U
12672-29-6	Aroclor-1248		1.0	U
11097-69-1	Aroclor-1254		1.0	U
11096-82-5	Aroclor-1260		1.0	U

1E

CLIENT SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

ACS-GWMW41-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970647908

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0701506.D

Level: (low/med) LOW Date Received: 06/26/97

% Moisture: not dec. Date Analyzed: 07/01/97

GC Column: DB-624 ID: .53(mm) Dilution Factor: 1.0

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

Number TICs Found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

ACS-GWMW41-92

Lab Name: IEA-NC Method: SOW 1/91

DATE SAMPLED: 6/25/97

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970647910

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0627115.D

Level: (low/med) LOW Date Received: 06/26/97 1

% Moisture: not dec. Date Analyzed: 06/27/97 2

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CRQL MULTIPLER = 1.00

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	UJ 10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10U 8	J
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	UJ 10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
108-88-3	Toluene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	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

1B

CLIENT SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

ACS-GWMW41-92

DATE SAMPLED: 6/25/97

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970647910

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 7021412.D

Level: (low/med) LOW Date Received: 06/26/97

% Moisture: decanted: (Y/N) Date Extracted: 06/27/97 (2)

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/02/97 (6)

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CARL MULTIPLIER = 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
108-95-2	Phenol	IDU 3	J
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
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitrosodi-N-Propylamine	10	U
67-72-1	Hexachloroethane	UJ 10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	Bis(2-Chloroethoxy) Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	UJ 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	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW41-92

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970647910

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 7021412.D

Level: (low/med) LOW Date Received: 06/26/97

% Moisture: decanted: (Y/N) Date Extracted: 06/27/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/02/97

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	UJ 25	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	25	U
534-52-1	4,6-Dinitro-2-Methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	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	10	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

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

V CLIENT SAMPLE NO.

ACS-GWMW41-92

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970647910

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 7021412.D

Level: (low/med) LOW Date Received: 06/26/97

% Moisture: decanted: (Y/N) Date Extracted: 06/27/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/02/97

Injection Volume: 2 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs Found: 4

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	Unknown	7.64	JN 4	J
	Unknown	7.94	2	J
	Unknown	8.25	4	J
	Unknown	13.90	10	J

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
ACS-GWMW41-92

MW419

DATE SAMPLED: 6/25/97

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970647910

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P4070197_032.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 06/26/97

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 06/28/97 (3)

Concentrated Extract Volume: 10000(uL) Date Analyzed: 07/10/97 (12)

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CRQL MULTIPLIER = 1.00

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	UJ 0.10	U
72-20-8	Endrin	UJ 0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	UJ 0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	UJ 0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	UJ 0.10	U
7421-93-4	Endrin aldehyde	UJ 0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

CLIENT SAMPLE NO

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

ACS-GWMW41-92

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

atrix: (soil/water) WATER Lab Sample ID: 970647910

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0627115.D

Level: (low/med) LOW Date Received: 06/26/97

% Moisture: not dec. Date Analyzed: 06/27/97

GC Column: DB-624 ID: 0.53(mm) Dilution Factor: 1.0

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

Number TICs Found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

VOLATILE SAMPLE NO.

ACS-GWMW42-02

DATE SAMPLED: 6/26/97

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970650317

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0701112.D

Level: (low/med) LOW Date Received: 06/27/97 (1)

% Moisture: not dec. Date Analyzed: 07/01/97 (5)

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CRQL MULTIPLIER = 1.00

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	US 10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
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	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
108-88-3	Toluene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	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

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW42-02

DATE SAMPLED: 6/26/97

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970650317

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0701P06.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: decanted: (Y/N) Date Extracted: 06/30/97 (4)

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/02/97 (3)

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: CRQL MULTIPLIER = 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
108-95-2	Phenol	10U 3	J
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
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitrosodi-N-Propylamine	10	U
67-72-1	Hexachloroethane	UJ 10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	Bis(2-Chloroethoxy) Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

CLIENT SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

ACS-GWMW42-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970650317

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0701P06.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: decanted: (Y/N) Date Extracted: 06/30/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/02/97

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	ug/l	Q
51-28-5	2,4-Dinitrophenol		25	U
100-02-7	4-Nitrophenol	45	25	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		25	U
534-52-1	4,6-Dinitro-2-Methylphenol		25	U
86-30-6	N-Nitrosodiphenylamine		10	U
101-55-3	4-Bromophenyl-phenylether		10	U
118-74-1	Hexachlorobenzene		10	U
87-86-5	Pentachlorophenol		25	U
85-01-8	Phenanthrene		10	U
120-12-7	Anthracene		10	U
86-74-8	Carbazole		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		10	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

1F

CLIENT SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

ACS-GWMW42-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970650317

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0701P06.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: decanted: (Y/N) Date Extracted: 06/30/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/02/97

Injection Volume: 2 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs Found: 3

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	Unknown	7.71	3	J
	Unknown	7.95	2	J
	~~Unknown~~	~~8.53~~	~~7~~	~~JB~~

FORM I SV-TIC

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
ACS-GWMW42-02

MW42

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

DATE SAMPLED: 6/26/97

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970650317

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P4070197_044.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 06/27/97

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 06/30/97 (4)

Concentrated Extract Volume: 10000(uL) Date Analyzed: 07/11/97 (11)

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CRQL MULTIPLIER = 1.00

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	UJ 0.10	U
72-20-8	Endrin	UJ 0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	UJ 0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	UJ 0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	UJ 0.10	U
7421-93-4	Endrin aldehyde	UJ 0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

ACS-GWMW42-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970650317

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0701112.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: not dec. Date Analyzed: 07/01/97

GC Column: DB-624 ID: 0.53(mm) Dilution Factor: 1.0

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

Number TICs Found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

ACS-GWMW42-92

DATE SAMPLED: 6/26/97

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970650318

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0701113.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: not dec. Date Analyzed: 07/01/97 5

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CRQL MULTIPLIER = 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
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	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
108-88-3	Toluene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	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

1B

CLIENT SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

ACS-GWMW42-92

DATE SAMPLED: 6/26/97

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970650318

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0701P07.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: decanted: (Y/N) Date Extracted: 06/30/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/02/97

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: CRQL MULTIPLIER F 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
108-95-2	Phenol	104 2	J
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
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitrosodi-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
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	45 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	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C

CLIENT SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

ACS-GWMW42-92

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970650318

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0701P07.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: decanted: (Y/N) Date Extracted: 06/30/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/02/97

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	ug/l	Q
51-28-5	2,4-Dinitrophenol		25	U
100-02-7	4-Nitrophenol	UJ	25	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		25	U
534-52-1	4,6-Dinitro-2-Methylphenol		25	U
86-30-6	N-Nitrosodiphenylamine		10	U
101-55-3	4-Bromophenyl-phenylether		10	U
118-74-1	Hexachlorobenzene		10	U
87-86-5	Pentachlorophenol		25	U
85-01-8	Phenanthrene		10	U
120-12-7	Anthracene		10	U
86-74-8	Carbazole		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		10	U
56-55-3	Benzo(A)Anthracene		10	U
218-01-9	Chrysene		10	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	104	6	J
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

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW42-92

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970650318

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0701P07.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: decanted: (Y/N) Date Extracted: 06/30/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/02/97

Injection Volume: 2 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs Found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	Unknown	7.71	JN 3	J
	~~Unknown~~	~~8.53~~	R ~~7~~	~~JB~~

PESTICIDE ORGANICS ANALYSIS DATA SHEET

ACS-GWMW42-92

MW4292

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

DATE SAMPLED: 6/26/97

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

atrix: (soil/water) WATER Lab Sample ID: 970650318

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P4070197_045.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 06/27/97

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 06/30/97

Concentrated Extract Volume: 10000(uL) Date Analyzed: 07/11/97

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CRQL MULTIPLIER = 1.00

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	UJ 0.10	U
72-20-8	Endrin	UJ 0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	UJ 0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	UJ 0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	UJ 0.10	U
7421-93-4	Endrin aldehyde	UJ 0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

ACS-GWMW42-92

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970650318

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0701113.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: not dec. Date Analyzed: 07/01/97

GC Column: DB-624 ID: 0.53(mm) Dilution Factor: 1.0

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

Number TICs Found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

ACS-GWMW43-02

DATE SAMPLED: 6/26/97

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970650315

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0701110.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: not dec. Date Analyzed: 07/01/97

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CRQL MULTIPLIER = 1.00

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	UJ 10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
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	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
108-88-3	Toluene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	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

1B CLIENT SAMPLE O.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

ACS-GWMW43-02

DATE SAMPLED: 6/26/97

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970650315

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0701P04.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: decanted: (Y/N) Date Extracted: 06/30/97 (4)

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/02/97 (3)

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: CRQL MULTIPLIER = 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	ug/l	Q
108-95-2	Phenol	(4)	12	
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
95-50-1	1,2-Dichlorobenzene		10	U
95-48-7	2-Methylphenol		10	U
108-60-1	2,2'-Oxybis(1-Chloropropane)		10	U
106-44-5	4-Methylphenol		10	U
621-64-7	N-Nitrosodi-N-Propylamine		10	U
67-72-1	Hexachloroethane	45	10	U
98-95-3	Nitrobenzene		10	U
78-59-1	Isophorone		10	U
88-75-5	2-Nitrophenol		10	U
105-67-9	2,4-Dimethylphenol		10	U
111-91-1	Bis(2-Chloroethoxy) Methane		10	U
120-83-2	2,4-Dichlorophenol		10	U
120-82-1	1,2,4-Trichlorobenzene		10	U
91-20-3	Naphthalene		10	U
106-47-8	4-Chloroaniline		10	U
87-68-3	Hexachlorobutadiene		10	U
59-50-7	4-Chloro-3-Methylphenol		10	U
91-57-6	2-Methylnaphthalene		10	U
77-47-4	Hexachlorocyclopentadiene		10	U
88-06-2	2,4,6-Trichlorophenol		10	U
95-95-4	2,4,5-Trichlorophenol		25	U
91-58-7	2-Chloronaphthalene		10	U
88-74-4	2-Nitroaniline		25	U
131-11-3	Dimethylphthalate		10	U
208-96-8	Acenaphthylene		10	U
606-20-2	2,6-Dinitrotoluene		10	U
99-09-2	3-Nitroaniline		25	U
83-32-9	Acenaphthene		10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW43-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970650315

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0701P04.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: decanted: (Y/N) Date Extracted: 06/30/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/02/97

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	ug/l	Q
51-28-5	2,4-Dinitrophenol		25	U
100-02-7	4-Nitrophenol	UJ	25	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		25	U
534-52-1	4,6-Dinitro-2-Methylphenol		25	U
86-30-6	N-Nitrosodiphenylamine		10	U
101-55-3	4-Bromophenyl-phenylether		10	U
118-74-1	Hexachlorobenzene		10	U
87-86-5	Pentachlorophenol		25	U
85-01-8	Phenanthrene		10	U
120-12-7	Anthracene		10	U
86-74-8	Carbazole		10	U
84-74-2	Di-N-Butylphthalate		10	U
206-44-0	Fluoranther		10	U
129-00-0	Pyrene		10	U
85-68-7	Butylbenzylphthalate		10	U
91-94-1	3,3'-Dichlorobenzidine		10	U
56-55-3	Benzo(A)Anthracene		10	U
218-01-9	Chrysene		10	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	JA	13	
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

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW43-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970650315

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0701P04.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: decanted: (Y/N) Date Extracted: 06/30/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/02/97

Injection Volume: 2 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs Found: 3

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	Unknown	7.71	JN 3	J
	~~Unknown~~	~~8.53~~	~~B 7~~	~~JB~~
000149-57-5	HEXANOIC ACID, 2-ETHYL-	11.29	JN 2	JN

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
ACS-GWMW43-02

MW43

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

DATE SAMPLED: 6/26/97

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970650315

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P4070197_042.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 06/27/97

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 06/30/97 (4)

Concentrated Extract Volume: 10000(uL) Date Analyzed: 07/11/97 (11)

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CRQL MULTIPLIER = 1.00

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	UJ	0.10	U
72-55-9	4,4'-DDE	UJ	0.10	U
72-20-8	Endrin		0.10	U
33213-65-9	Endosulfan II		0.10	U
72-54-8	4,4'-DDD	UJ	0.10	U
1031-07-8	Endosulfan sulfate		0.10	U
50-29-3	4,4'-DDT	UJ	0.10	U
72-43-5	Methoxychlor		0.50	U
53494-70-5	Endrin ketone	UJ	0.10	U
7421-93-4	Endrin aldehyde	UJ	0.10	U
5103-71-9	alpha-Chlordane		0.050	U
5103-74-2	gamma-Chlordane		0.050	U
8001-35-2	Toxaphene		5.0	U
12674-11-2	Aroclor-1016		1.0	U
11104-28-2	Aroclor-1221		2.0	U
11141-16-5	Aroclor-1232		1.0	U
53469-21-9	Aroclor-1242		1.0	U
12672-29-6	Aroclor-1248		1.0	U
11097-69-1	Aroclor-1254		1.0	U
11096-82-5	Aroclor-1260		1.0	U

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

ACS-GWMW43-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970650315

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0701110.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: not dec. Date Analyzed: 07/01/97

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs Found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

ACS-GWMW44-02

DATE SAMPLED: 6/26/97

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970650620

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0701115.D

Level: (low/med) LOW Date Received: 06/27/97 (1)

% Moisture: not dec. Date Analyzed: 07/01/97 (5)

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CRQL MULTIPLIER = 1.00

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	UJ 10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
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	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
108-88-3	Toluene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	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

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW44-02

DATE SAMPLED: 6/26/97

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970650620

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0701P09.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: decanted: (Y/N) Date Extracted: 06/30/97 (4)

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/02/97 (3)

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: CRQL MULTIPLER = 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
108-95-2	Phenol	10U 2	J
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
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitrosodi-N-Propylamine	10	U
67-72-1	Hexachloroethane	4J 10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	Bis(2-Chloroethoxy) Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C

CLIENT SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

ACS-GWMW44-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970650620

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0701P09.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: decanted: (Y/N) Date Extracted: 06/30/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/02/97

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	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	25	U
534-52-1	4,6-Dinitro-2-Methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	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	10	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

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW44-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970650620

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0701P09.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: decanted: (Y/N) Date Extracted: 06/30/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/02/97

Injection Volume: 2 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs Found: 7

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	Unknown	7.67	JN 2	J
	Unknown	7.71	2	J
	Unknown	7.95	2	J
004291-79-6	CYCLOHEXANE, 1-METHYL-2-PROP	8.27	2	JN
	~~Unknown~~	~~8.53~~	~~6~~	~~JB~~
	Unknown	13.20	JN 2	J
	Unknown	13.92	12	J

→ 004291-79-6 CYCLOHEXANE, 1-METHYL-2-PROPYL-

FORM I SV-TIC

PESTICIDE ORGANICS ANALYSIS DATA SHEET

ACS-GWMW44-02

MW44

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

DATE SAMPLED: 6/26/97

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970650620

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P4070197_049.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 06/27/97

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 06/30/97 4

Concentrated Extract Volume: 10000(uL) Date Analyzed: 07/11/97 11

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CRQL MULTIPLIER = 1.00

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	UJ	0.10	U
72-20-8	Endrin	UJ	0.10	U
33213-65-9	Endosulfan II		0.10	U
72-54-8	4,4'-DDD	UJ	0.10	U
1031-07-8	Endosulfan sulfate		0.10	U
50-29-3	4,4'-DDT	UJ	0.10	U
72-43-5	Methoxychlor		0.50	U
53494-70-5	Endrin ketone	UJ	0.10	U
7421-93-4	Endrin aldehyde	UJ	0.10	U
5103-71-9	alpha-Chlordane		0.050	U
5103-74-2	gamma-Chlordane		0.050	U
8001-35-2	Toxaphene		5.0	U
12674-11-2	Aroclor-1016		1.0	U
11104-28-2	Aroclor-1221		2.0	U
11141-16-5	Aroclor-1232		1.0	U
53469-21-9	Aroclor-1242		1.0	U
12672-29-6	Aroclor-1248		1.0	U
11097-69-1	Aroclor-1254		1.0	U
11096-82-5	Aroclor-1260		1.0	U

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

ACS-GWMW44-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970650620

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0701115.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: not dec. Date Analyzed: 07/01/97

GC Column: DB-624 ID: 0.53(mm) Dilution Factor: 1.0

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

Number TICs Found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW45-02 6-25-97

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-059 SDG No.: 06511

Matrix: (soil/water) WATER Lab Sample ID: 970651107

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0701J06.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: not dec. Date Analyzed: 07/02/97

GC Column: DB-624 ID: 0.53(mm) Dilution Factor: 8.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
74-87-3	Chloromethane	80	U
74-83-9	Bromomethane	80	U
75-01-4	Vinyl Chloride	80	U
75-00-3	Chloroethane	J 120	
75-09-2	Methylene Chloride	80	U
67-64-1	Acetone	80	U
75-15-0	Carbon Disulfide	80	U
75-35-4	1,1-Dichloroethene	80	U
75-34-3	1,1-Dichloroethane	80	U
540-59-0	1,2-Dichloroethene (total)	80	U
67-66-3	Chloroform	80	U
107-06-2	1,2-Dichloroethane	UJ 80	U
78-93-3	2-Butanone	80	U
71-55-6	1,1,1-Trichloroethane	80	U
56-23-5	Carbon Tetrachloride	80	U
75-27-4	Bromodichloromethane	80	U
78-87-5	1,2-Dichloropropane	80	U
10061-01-5	cis-1,3-Dichloropropene	80	U
79-01-6	Trichloroethene	80	U
124-48-1	Dibromochloromethane	80	U
79-00-5	1,1,2-Trichloroethane	80	U
71-43-2	Benzene	940	
10061-02-6	Trans-1,3-Dichloropropene	80	U
75-25-2	Bromoform	80	U
108-10-1	4-Methyl-2-Pentanone	80	U
591-78-6	2-Hexanone	80	U
127-18-4	Tetrachloroethene	80	U
108-88-3	Toluene	80	U
79-34-5	1,1,2,2-Tetrachloroethane	80	U
108-90-7	Chlorobenzene	42	J
100-41-4	Ethylbenzene	80	U
100-42-5	Styrene	80	U
1330-20-7	Xylene (total)	280	

FORM I VOA

VALIDATED

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW45-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-059 SDG No.: 06511

Matrix: (soil/water) WATER Lab Sample ID: 970651107

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0708803.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: decanted: (Y/N) Date Extracted: 06/30/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/08/97

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCE. (ug/L or	Q
108-95-2	Phenol	.9	J
111-44-4	Bis(2-Chloroethyl)Ether	8	J
95-57-8	2-Chlorophenol	20	U
541-73-1	1,3-Dichlorobenzene	20	U
106-46-7	1,4-Dichlorobenzene	20	U
95-50-1	1,2-Dichlorobenzene	2 ~~8~~	J JAK
95-48-7	2-Methylphenol	20	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	U
106-44-5	4-Methylphenol	20	U
621-64-7	N-Nitrosodi-N-Propylamine	20	U
67-72-1	Hexachloroethane	20	U
98-95-3	Nitrobenzene	20	U
78-59-1	Isophorone	20	U
88-75-5	2-Nitrophenol	20	U
105-67-9	2,4-Dimethylphenol	20	U
111-91-1	Bis(2-Chloroethoxy) Methane	20	U
120-83-2	2,4-Dichlorophenol	20	U
120-82-1	1,2,4-Trichlorobenzene	20	U
91-20-3	Naphthalene	140	
106-47-8	4-Chloroaniline	20	U
87-68-3	Hexachlorobutadiene	20	U
59-50-7	4-Chloro-3-Methylphenol	20	U
91-57-6	2-Methylnaphthalene	7	J
77-47-4	Hexachlorocyclopentadiene	20	U
88-06-2	2,4,6-Trichlorophenol	20	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	20	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethylphthalate	20	U
208-96-8	Acenaphthylene	20	U
606-20-2	2,6-Dinitrotoluene	20	U
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	20	U

FORM I SV-1

VALIDATED

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW45-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-059 SDG No.: 06511

Matrix: (soil/water) WATER Lab Sample ID: 970651107

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0708803.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: decanted: (Y/N) Date Extracted: 06/30/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/08/97

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	20	U
121-14-2	2,4-Dinitrotoluene	20	U
84-66-2	Diethylphthalate	20	U
7005-72-3	4-Chlorophenyl-phenylether	20	U
86-73-7	Fluorene	20	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-Methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine	20	U
101-55-3	4-Bromophenyl-phenylether	20	U
118-74-1	Hexachlorobenzene	20	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	20	U
120-12-7	Anthracene	20	U
86-74-8	Carbazole	20	U
84-74-2	Di-N-Butylphthalate	20	U
206-44-0	Fluoranthene	20	U
129-00-0	Pyrene	20	U
85-68-7	Butylbenzylphthalate	20	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(A)Anthracene	20	U
218-01-9	Chrysene	20	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	u 4	J
117-84-0	Di-N-Octylphthalate	20	U
205-99-2	Benzo(B)Fluoranthene	20	U
207-08-9	Benzo(K)Fluoranthene	20	U
50-32-8	Benzo(A)Pyrene	20	U
193-39-5	Indeno(1,2,3-Cd)Pyrene	20	U
53-70-3	Dibenz(A,H)Anthracene	20	U
191-24-2	Benzo(G,H,I)Perylene	20	U

VALIDATED

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW45-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-059 SDG No.: 06511

Matrix: (soil/water) WATER Lab Sample ID: 970651107

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0708803.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: decanted: (Y/N) Date Extracted: 06/30/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/08/97

Injection Volume: 2 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) N pH:

Number TICs Found: 15

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	SUBSTITUTED BENZENE	7.97	17	J
000103-65-1	BENZENE, PROPYL-	8.57	17	JN
	SUBSTITUTED BENZENE	8.87	30	J
	SUBSTITUTED BENZENE	9.38	270	J
	SUBSTITUTED BENZENE	9.94	91	J
	UNKNOWN	11.27	8	J
	SUBSTITUTED BENZENE	11.62	7	J
	SUBSTITUTED BENZENE	11.70	12	J
	UNKNOWN	12.05	5	J
	UNKNOWN	12.25	16	J
000090-12-0	NAPHTHALENE, 1-METHYL-	14.87	9	JN
000499-06-9	BENZOIC ACID, 3,5-DIMETHYL-	16.01	6	JN
000480-63-7	BENZOIC ACID, 2,4,6-TRIMETHYL-	16.31	12	JN
	UNKNOWN	18.07	6	J
	SECOBARBITAL ISOMER	21.15	16	J

FORM I SV-TIC

VALIDATED

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW45
ACS-GWMW45-02

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-059 SDG No.: 06511

Matrix: (soil/water) WATER Lab Sample ID: 970651107

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P4071597_029.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 06/27/97

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 07/01/97

Concentrated Extract Volume: 10000(uL) Date Analyzed: 07/18/97

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

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	UJ	0.10	U
72-20-8	Endrin	UJ	0.10	U
33213-65-9	Endosulfan II		0.10	U
72-54-8	4,4'-DDD	UJ	0.10	U
1031-07-8	Endosulfan sulfate		0.10	U
50-29-3	4,4'-DDT	UJ	0.10	U
72-43-5	Methoxychlor		0.50	U
53494-70-5	Endrin ketone	UJ	0.10	U
7421-93-4	Endrin aldehyde	UJ	0.10	U
5103-71-9	alpha-Chlordane		0.050	U
5103-74-2	gamma-Chlordane		0.050	U
8001-35-2	Toxaphene		5.0	U
12674-11-2	Aroclor-1016		1.0	U
11104-28-2	Aroclor-1221		2.0	U
11141-16-5	Aroclor-1232		1.0	U
53469-21-9	Aroclor-1242		1.0	U
12672-29-6	Aroclor-1248		1.0	U
11097-69-1	Aroclor-1254		1.0	U
11096-82-5	Aroclor-1260		1.0	U

VALIDATED

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

ACS-GWMW45-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-059 SDG No.: 06511

Matrix: (soil/water) WATER Lab Sample ID: 970651107

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0701J06.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: not dec. Date Analyzed: 07/02/97

GC Column: DB-624 ID: 0.53(mm) Dilution Factor: 8.0

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

Number TICs Found: 5

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	TRIMETHYLBENZENE ISOMER	21.10	43	J
	TRIMETHYLBENZENE ISOMER	21.97	410	J
	TRIMETHYLBENZENE ISOMER	22.96	120	J
	SUBSTITUTED BENZENE	23.41	61	J
~~000091-20-3~~	~~NAPHTHALENE~~	~~27.10~~	~~160~~	~~JN~~

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TIC

FORM I VOA-TIC

VALIDATED

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW46-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-054 6/24/97 SDG No.: 06448

Matrix: (soil/water) WATER Lab Sample ID: 970644802

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0627103.D

Level: (low/med) LOW Date Received: 06/25/97

% Moisture: not dec. Date Analyzed: 06/27/97

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
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	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	2	J
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
108-88-3	Toluene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	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

VALIDATED

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW46-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-054 SDG No.: 06448

Matrix: (soil/water) WATER Lab Sample ID: 970644802

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0702807.D

Level: (low/med) LOW Date Received: 06/25/97

% Moisture: decanted: (Y/N) Date Extracted: 06/26/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/02/97

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
108-95-2	Phenol	10	U
111-44-4	Bis(2-Chloroethyl)Ether	4	J
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitrosodi-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
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	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW46-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-054 SDG No.: 06448

Matrix: (soil/water) WATER Lab Sample ID: 970644802

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0702807.D

Level: (low/med) LOW Date Received: 06/25/97

% Moisture: decanted: (Y/N) Date Extracted: 06/26/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/02/97

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	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	25	U
534-52-1	4,6-Dinitro-2-Methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	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	10	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

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW46-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-054 SDG No.: 06448

Matrix: (soil/water) WATER Lab Sample ID: 970644802

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0702807.D

Level: (low/med) LOW Date Received: 06/25/97

% Moisture: decanted: (Y/N) Date Extracted: 06/26/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/02/97

Injection Volume: 2 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs Found: 3

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
000112-36-7	ETHANE, 1,1'-OXYBIS[2-ETHOXY	11.21	6	JN
000088-19-7	BENZENESULFONAMIDE, 2-METHYL	19.48	2	JN
000070-55-3	BENZENESULFONAMIDE, 4-METHYL	19.96	2	JN

VALIDATED

FORM I SV-TIC

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW46
ACS-GWMW46-02

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-054 SDG No.: 06448

Matrix: (soil/water) WATER Lab Sample ID: 970644802

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P2070197_055.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 06/25/97

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 06/27/97

Concentrated Extract Volume: 10000(uL) Date Analyzed: 07/10/97

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

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
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

VALIDATED

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

ACS-GWMW46-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-054 SDG No.: 06448

Matrix: (soil/water) WATER Lab Sample ID: 970644802

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0627103.D

Level: (low/med) LOW Date Received: 06/25/97

% Moisture: not dec. Date Analyzed: 06/27/97

GC Column: DB-624 ID: 0.53(mm) Dilution Factor: 1.0

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

Number TICs Found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
000108-20-3	DIISOPROPYL ETHER	7.20	14	JN

VALIDATED

FORM I VOA-TIC

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW47-02 6-26-97

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-059 SDG No.: 06511

Matrix: (soil/water) WATER Lab Sample ID: 970651106

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0701515.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: not dec. Date Analyzed: 07/01/97

GC Column: DB-624 ID: .53(mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
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	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
108-88-3	Toluene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	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

FORM I VOA

VALIDATED

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW47-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-059 SDG No.: 06511

Matrix: (soil/water) WATER Lab Sample ID: 970651106

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0707813.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: decanted: (Y/N) Date Extracted: 06/30/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/07/97

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
108-95-2	Phenol	16	
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
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitrosodi-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
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	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

VALIDATED

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW47-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-059 SDG No.: 06511

Matrix: (soil/water) WATER Lab Sample ID: 970651106

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0707813.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: decanted: (Y/N) Date Extracted: 06/30/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/07/97

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	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	25	U
534-52-1	4,6-Dinitro-2-Methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	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	10	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

VALIDATED

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW47-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-059 SDG No.: 06511

Matrix: (soil/water) WATER Lab Sample ID: 970651106

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0707813.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: decanted: (Y/N) Date Extracted: 06/30/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/07/97

Injection Volume: 2 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs Found: 6

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
002896-60-8	UNKNOWN	7.98	2	JN
	~~UNKNOWN~~	~~8.87~~	~~5~~	~~JB~~
000104-76-7	1-HEXANOL, 2-ETHYL-	10.14	7	JN
	SUBSTITUTED ETHANOL ISOMER	12.92	9	J
	UNKNOWN	14.15	3	J
000098-73-7	BENZOIC ACID, P-TERT-BUTYL-	17.42	4	JN

FORM I SV-TIC

VALIDATED

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW47
ACS-GWMW47-02

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-059 SDG No.: 06511

Matrix: (soil/water) WATER Lab Sample ID: 970651106

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P4071597_028.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 06/27/97

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 07/01/97

Concentrated Extract Volume: 10000(uL) Date Analyzed: 07/18/97

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

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	UJ	0.10	U
72-20-8	Endrin	UJ	0.10	U
33213-65-9	Endosulfan II		0.10	U
72-54-8	4,4'-DDD	UJ	0.10	U
1031-07-8	Endosulfan sulfate		0.10	U
50-29-3	4,4'-DDT	UJ	0.10	U
72-43-5	Methoxychlor		0.50	U
53494-70-5	Endrin ketone	UJ	0.10	U
7421-93-4	Endrin aldehyde	UJ	0.10	U
5103-71-9	alpha-Chlordane		0.050	U
5103-74-2	gamma-Chlordane		0.050	U
8001-35-2	Toxaphene		5.0	U
12674-11-2	Aroclor-1016		1.0	U
11104-28-2	Aroclor-1221		2.0	U
11141-16-5	Aroclor-1232		1.0	U
53469-21-9	Aroclor-1242		1.0	U
12672-29-6	Aroclor-1248		1.0	U
11097-69-1	Aroclor-1254		1.0	U
11096-82-5	Aroclor-1260		1.0	U

VALIDATED

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

ACS-GWMW47-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-059 SDG No.: 06511

Matrix: (soil/water) WATER Lab Sample ID: 970651106

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0701515.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: not dec. Date Analyzed: 07/01/97

GC Column: DB-624 ID: .53(mm) Dilution Factor: 1.0

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

Number TICs Found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC

VALIDATED

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW48-02 6-26-97

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-059 SDG No.: 06511

Matrix: (soil/water) WATER Lab Sample ID: 970651208

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0701J08.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: not dec. Date Analyzed: 07/02/97

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 50

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

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

CAS NO.	COMPOUND		ug/l	Q
74-87-3	Chloromethane		500	U
74-83-9	Bromomethane		500	U
75-01-4	Vinyl Chloride		500	U
75-00-3	Chloroethane	J	670	
75-09-2	Methylene Chloride		500	U
67-64-1	Acetone		500	U
75-15-0	Carbon Disulfide		500	U
75-35-4	1,1-Dichloroethene		500	U
75-34-3	1,1-Dichloroethane		500	U
540-59-0	1,2-Dichloroethene (total)		500	U
67-66-3	Chloroform		500	U
107-06-2	1,2-Dichloroethane	UJ	500	U
78-93-3	2-Butanone		500	U
71-55-6	1,1,1-Trichloroethane		500	U
56-23-5	Carbon Tetrachloride		500	U
75-27-4	Bromodichloromethane		500	U
78-87-5	1,2-Dichloropropane		500	U
10061-01-5	cis-1,3-Dichloropropene		500	U
79-01-6	Trichloroethene		500	U
124-48-1	Dibromochloromethane		500	U
79-00-5	1,1,2-Trichloroethane		500	U
71-43-2	Benzene		7700	
10061-02-6	Trans-1,3-Dichloropropene		500	U
75-25-2	Bromoform		500	U
108-10-1	4-Methyl-2-Pentanone		500	U
591-78-6	2-Hexanone		500	U
127-18-4	Tetrachloroethene		500	U
108-88-3	Toluene		500	U
79-34-5	1,1,2,2-Tetrachloroethane		500	U
108-90-7	Chlorobenzene		500	U
100-41-4	Ethylbenzene		500	U
100-42-5	Styrene		500	U
1330-20-7	Xylene (total)		500	U

VALIDATED

FORM I VOA

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW48-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-059 SDG No.: 06511

Matrix: (soil/water) WATER Lab Sample ID: 970651208

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0708804.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: decanted: (Y/N) Date Extracted: 06/30/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/08/97

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
108-95-2	Phenol	100	
111-44-4	Bis(2-Chloroethyl)Ether	18	J
95-57-8	2-Chlorophenol	20	U
541-73-1	1,3-Dichlorobenzene	20	U
106-46-7	1,4-Dichlorobenzene	20	U
95-50-1	1,2-Dichlorobenzene	20	U
95-48-7	2-Methylphenol	20	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	U
106-44-5	4-Methylphenol	20	U
621-64-7	N-Nitrosodi-N-Propylamine	20	U
67-72-1	Hexachloroethane	20	U
98-95-3	Nitrobenzene	20	U
78-59-1	Isophorone	20	U
88-75-5	2-Nitrophenol	20	U
105-67-9	2,4-Dimethylphenol	20	U
111-91-1	Bis(2-Chloroethoxy) Methane	20	U
120-83-2	2,4-Dichlorophenol	20	U
120-82-1	1,2,4-Trichlorobenzene	20	U
91-20-3	Naphthalene	20	U
106-47-8	4-Chloroaniline	20	U
87-68-3	Hexachlorobutadiene	20	U
59-50-7	4-Chloro-3-Methylphenol	20	U
91-57-6	2-Methylnaphthalene	20	U
77-47-4	Hexachlorocyclopentadiene	20	U
88-06-2	2,4,6-Trichlorophenol	20	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	20	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethylphthalate	20	U
208-96-8	Acenaphthylene	20	U
606-20-2	2,6-Dinitrotoluene	20	U
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	20	U

VALIDATED

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW48-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-059 SDG No.: 06511

Matrix: (soil/water) WATER Lab Sample ID: 970651208

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0708804.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: decanted: (Y/N) Date Extracted: 06/30/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/08/97

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	20	U
121-14-2	2,4-Dinitrotoluene	20	U
84-66-2	Diethylphthalate	20	U
7005-72-3	4-Chlorophenyl-phenylether	20	U
86-73-7	Fluorene	20	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-Methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine	20	U
101-55-3	4-Bromophenyl-phenylether	20	U
118-74-1	Hexachlorobenzene	20	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	20	U
120-12-7	Anthracene	20	U
86-74-8	Carbazole	20	U
84-74-2	Di-N-Butylphthalate	20	U
206-44-0	Fluoranthene	20	U
129-00-0	Pyrene	20	U
85-68-7	Butylbenzylphthalate	20	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(A)Anthracene	20	U
218-01-9	Chrysene	20	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	20	U
117-84-0	Di-N-Octylphthalate	20	U
205-99-2	Benzo(B)Fluoranthene	20	U
207-08-9	Benzo(K)Fluoranthene	20	U
50-32-8	Benzo(A)Pyrene	20	U
193-39-5	Indeno(1,2,3-Cd)Pyrene	20	U
53-70-3	Dibenz(A,H)Anthracene	20	U
191-24-2	Benzo(G,H,I)Perylene	20	U

VALIDATED

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW48-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-059 SDG No.: 06511

Matrix: (soil/water) WATER Lab Sample ID: 970651208

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 0708804.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: decanted: (Y/N) Date Extracted: 06/30/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/08/97

Injection Volume: 2 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) N pH:

Number TICs Found: 20

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
000110-81-6	DISULFIDE, DIETHYL	7.92	50	JN
000873-94-9	CYCLOHEXANONE, 3,3,5-TRIMETHYL-	10.26	410	JN
	UNKNOWN	11.34	24	J
	UNKNOWN	11.99	13	J
	UNKNOWN	12.07	30	J
016022-08-5	BICYCLO[3.1.1]HEPTAN-2-ONE,	13.22	13	JN
	UNKNOWN	14.00	12	J
000112-26-5	ETHANE, 1,2-BIS(2-CHLOROETHOXY)-	14.18	10	JN
	CHLORINATED BENZOIC ACID ISOMER	15.23	35	J
	UNKNOWN	15.30	6	J
033228-44-3	P-PENTYLANILINE	15.40	5	JN
	UNKNOWN	15.95	9	J
	METHYLATED BENZOIC ACID ISOMER	16.06	8	J
	UNKNOWN	17.69	96	J
	UNKNOWN	17.75	5	J
000101-10-0	PROPANOIC ACID, 2-(3-CHLOROPHENOXY)	18.51	12	JN
	SECOBARBITAL ISOMER	21.17	14	J
	UNKNOWN	22.16	28	J
000081-84-5	1,8-NAPHTHALIC ANHYDRIDE	23.93	7	JN
	UNKNOWN	26.98	16	J

VALIDATED

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW48
ACS-GWMW48-02

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

Lab Code: IEA Case No.: 2240-059 SDG No.: 06511

Matrix: (soil/water) WATER Lab Sample ID: 970651208

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P4071597_030.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 06/27/97

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 07/01/97

Concentrated Extract Volume: 10000(uL) Date Analyzed: 07/18/97

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

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	UJ 0.10	U
72-20-8	Endrin	UJ 0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	UJ 0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	UJ 0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	UJ 0.10	U
7421-93-4	Endrin aldehyde	UJ 0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

VALIDATED

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

ACS-GWMW48-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-059 SDG No.: 06511

Matrix: (soil/water) WATER Lab Sample ID: 970651208

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0701J08.D

Level: (low/med) LOW Date Received: 06/27/97

% Moisture: not dec. Date Analyzed: 07/02/97

GC Column: DB-624 ID: 0.53(mm) Dilution Factor: 50.0

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

Number TICs Found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
000060-29-7	ETHER	4.19	400	JN

FORM I VOA-TIC

VALIDATED

VOLATILE ORGANICS ANALYSIS DATA SHEET

ACS-GWMW49-02

DATE SAMPLED: 6/25/97

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970647806

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0701507.D

Level: (low/med) LOW Date Received: 06/26/97 ①

% Moisture: not dec. Date Analyzed: 07/01/97 ②

GC Column: DB-624 ID: .53(mm) Dilution Factor: 25

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

CRQL MULTIPLIER = 25.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
74-87-3	Chloromethane	250	U
74-83-9	Bromomethane	250	U
75-01-4	Vinyl Chloride	250	U
75-00-3	Chloroethane	J 540	
75-09-2	Methylene Chloride	250	U
67-64-1	Acetone	250	U
75-15-0	Carbon Disulfide	250	U
75-35-4	1,1-Dichloroethene	250	U
75-34-3	1,1-Dichloroethane	250	U
540-59-0	1,2-Dichloroethene (total)	250	U
67-66-3	Chloroform	250	U
107-06-2	1,2-Dichloroethane	250	U
78-93-3	2-Butanone	250	U
71-55-6	1,1,1-Trichloroethane	250	U
56-23-5	Carbon Tetrachloride	250	U
75-27-4	Bromodichloromethane	250	U
78-87-5	1,2-Dichloropropane	250	U
10061-01-5	cis-1,3-Dichloropropene	250	U
79-01-6	Trichloroethene	250	U
124-48-1	Dibromochloromethane	250	U
79-00-5	1,1,2-Trichloroethane	250	U
71-43-2	Benzene	J 4800	
10061-02-6	Trans-1,3-Dichloropropene	250	U
75-25-2	Bromoform	250	U
108-10-1	4-Methyl-2-Pentanone	250	U
591-78-6	2-Hexanone	250	U
127-18-4	Tetrachloroethene	250	U
108-88-3	Toluene	250	U
79-34-5	1,1,2,2-Tetrachloroethane	250	U
108-90-7	Chlorobenzene	250	U
100-41-4	Ethylbenzene	250	U
100-42-5	Styrene	250	U
1330-20-7	Xylene (total)	250	U

1B

CLIENT SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

ACS-GWMW49-02

DATE SAMPLED: 6/25/97

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970647806

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 7071413.D

Level: (low/med) LOW Date Received: 06/26/97

% Moisture: decanted: (Y/N) Date Extracted: 06/27/97 (2)

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/07/97 (11)

Injection Volume: 2.0 (uL) Dilution Factor: 5.0

GPC Cleanup: (Y/N) N pH: CRQL MULTIPLIER = 5.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
108-95-2	Phenol	SOU 34	J
111-44-4	Bis(2-Chloroethyl)Ether	50	U
95-57-8	2-Chlorophenol	50	U
541-73-1	1,3-Dichlorobenzene	50	U
106-46-7	1,4-Dichlorobenzene	50	U
95-50-1	1,2-Dichlorobenzene	50	U
95-48-7	2-Methylphenol	50	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	22	J
106-44-5	4-Methylphenol	50	U
621-64-7	N-Nitrosodi-N-Propylamine	50	U
67-72-1	Hexachloroethane	50	U
98-95-3	Nitrobenzene	50	U
78-59-1	Isophorone	7	J
88-75-5	2-Nitrophenol	50	U
105-67-9	2,4-Dimethylphenol	50	U
111-91-1	Bis(2-Chloroethoxy) Methane	50	U
120-83-2	2,4-Dichlorophenol	50	U
120-82-1	1,2,4-Trichlorobenzene	50	U
91-20-3	Naphthalene	50	U
106-47-8	4-Chloroaniline	50	U
87-68-3	Hexachlorobutadiene	UJ 50	U
59-50-7	4-Chloro-3-Methylphenol	50	U
91-57-6	2-Methylnaphthalene	50	U
77-47-4	Hexachlorocyclopentadiene	50	U
88-06-2	2,4,6-Trichlorophenol	50	U
95-95-4	2,4,5-Trichlorophenol	120	U
91-58-7	2-Chloronaphthalene	50	U
88-74-4	2-Nitroaniline	120	U
131-11-3	Dimethylphthalate	50	U
208-96-8	Acenaphthylene	50	U
606-20-2	2,6-Dinitrotoluene	50	U
99-09-2	3-Nitroaniline	120	U
83-32-9	Acenaphthene	50	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW49-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970647806

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 7071413.D

Level: (low/med) LOW Date Received: 06/26/97

% Moisture: decanted: (Y/N) Date Extracted: 06/27/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/07/97

Injection Volume: 2.0 (uL) Dilution Factor: 5.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	ug/l	Q
51-28-5	2,4-Dinitrophenol		120	U
100-02-7	4-Nitrophenol	UJ	120	U
132-64-9	Dibenzofuran		50	U
121-14-2	2,4-Dinitrotoluene		50	U
84-66-2	Diethylphthalate		50	U
7005-72-3	4-Chlorophenyl-phenylether		50	U
86-73-7	Fluorene		50	U
100-01-6	4-Nitroaniline		120	U
534-52-1	4,6-Dinitro-2-Methylphenol		120	U
86-30-6	N-Nitrosodiphenylamine		50	U
101-55-3	4-Bromophenyl-phenylether		50	U
118-74-1	Hexachlorobenzene		50	U
87-86-5	Pentachlorophenol		120	U
85-01-8	Phenanthrene		50	U
120-12-7	Anthracene		50	U
86-74-8	Carbazole		50	U
84-74-2	Di-N-Butylphthalate		50	U
206-44-0	Fluoranthene		50	U
129-00-0	Pyrene		50	U
85-68-7	Butylbenzylphthalate		50	U
91-94-1	3,3'-Dichlorobenzidine		50	U
56-55-3	Benzo(A)Anthracene		50	U
218-01-9	Chrysene		50	U
117-81-7	Bis(2-Ethylhexyl)Phthalate		50	U
117-84-0	Di-N-Octylphthalate		50	U
205-99-2	Benzo(B)Fluoranthene		50	U
207-08-9	Benzo(K)Fluoranthene		50	U
50-32-8	Benzo(A)Pyrene		50	U
193-39-5	Indeno(1,2,3-Cd)Pyrene		50	U
53-70-3	Dibenz(A,H)Anthracene		50	U
191-24-2	Benzo(G,H,I)Perylene		50	U

FORM I SV-2

1F

CLIENT SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

ACS-GWMW49-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970647806

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 7071413.D

Level: (low/med) LOW Date Received: 06/26/97

% Moisture: decanted: (Y/N) Date Extracted: 06/27/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/07/97

Injection Volume: 2 (uL) Dilution Factor: 5.0

GPC Cleanup: (Y/N) N pH:

Number TICs Found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
000076-73-3	SECOBARBITAL	20.10	JN 13	JN
	Unknown	21.01	↓ 25	J

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
ACS-GWMW49-02

MW49

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

DATE SAMPLED: 6/25/97

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970647806

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P4070197_028.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 06/26/97

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 06/28/97 (3)

Concentrated Extract Volume: 10000(uL) Date Analyzed: 07/10/97 (13)

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CRQL MULTIPLIER = 1.00

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	UJ	0.10	U
72-20-8	Endrin	UJ	0.10	U
33213-65-9	Endosulfan II		0.10	U
72-54-8	4,4'-DDD	UJ	0.10	U
1031-07-8	Endosulfan sulfate		0.10	U
50-29-3	4,4'-DDT	UJ	0.10	U
72-43-5	Methoxychlor		0.50	U
53494-70-5	Endrin ketone	UJ	0.10	U
7421-93-4	Endrin aldehyde	UJ	0.10	U
5103-71-9	alpha-Chlordane		0.050	U
5103-74-2	gamma-Chlordane		0.050	U
8001-35-2	Toxaphene		5.0	U
12674-11-2	Aroclor-1016		1.0	U
11104-28-2	Aroclor-1221		2.0	U
11141-16-5	Aroclor-1232		1.0	U
53469-21-9	Aroclor-1242		1.0	U
12672-29-6	Aroclor-1248		1.0	U
11097-69-1	Aroclor-1254		1.0	U
11096-82-5	Aroclor-1260		1.0	U

CLIENT SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

ACS-GWMW49-02

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970647806

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0701507.D

Level: (low/med) LOW Date Received: 06/26/97

% Moisture: not dec. Date Analyzed: 07/01/97

GC Column: DB-624 ID: .53 (mm) Dilution Factor: 25.0

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

Number TICs Found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
000873-94-9	CYCLOHEXANONE, 3,3,5-TRIMETH	24.94	IN 220	JN

FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

ACS-GWMW49-92

Lab Name: IEA-NC Method: SOW 1/91

DATE SAMPLED: 6/25/97

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970647807

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0701508.D

Level: (low/med) LOW Date Received: 06/26/97 (1)

% Moisture: not dec. Date Analyzed: 07/01/97 (6)

GC Column: DB-624 ID: .53 (mm) Dilution Factor: 40

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

CRQL MULTIPLIER = 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
74-87-3	Chloromethane	400	U
74-83-9	Bromomethane	400	U
75-01-4	Vinyl Chloride	400	U
75-00-3	Chloroethane	890	
75-09-2	Methylene Chloride	400	U
67-64-1	Acetone	400	U
75-15-0	Carbon Disulfide	400	U
75-35-4	1,1-Dichloroethene	400	U
75-34-3	1,1-Dichloroethane	400	U
540-59-0	1,2-Dichloroethene (total)	400	U
67-66-3	Chloroform	400	U
107-06-2	1,2-Dichloroethane	400	U
78-93-3	2-Butanone	400	U
71-55-6	1,1,1-Trichloroethane	400	U
56-23-5	Carbon Tetrachloride	400	U
75-27-4	Bromodichloromethane	400	U
78-87-5	1,2-Dichloropropane	400	U
10061-01-5	cis-1,3-Dichloropropene	400	U
79-01-6	Trichloroethene	400	U
124-48-1	Dibromochloromethane	400	U
79-00-5	1,1,2-Trichloroethane	400	U
71-43-2	Benzene	6200	
10061-02-6	Trans-1,3-Dichloropropene	400	U
75-25-2	Bromoform	400	U
108-10-1	4-Methyl-2-Pentanone	400	U
591-78-6	2-Hexanone	400	U
127-18-4	Tetrachloroethene	400	U
108-88-3	Toluene	400	U
79-34-5	1,1,2,2-Tetrachloroethane	400	U
108-90-7	Chlorobenzene	400	U
100-41-4	Ethylbenzene	400	U
100-42-5	Styrene	400	U
1330-20-7	Xylene (total)	400	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ACS-GWMW49-92

DATE SAMPLED: 6/26/97

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970647807

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 7071414.D

Level: (low/med) LOW Date Received: 06/26/97

% Moisture: decanted: (Y/N) Date Extracted: 06/27/97 (2)

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/07/97 (1)

Injection Volume: 2.0 (uL) Dilution Factor: 5.0

GPC Cleanup: (Y/N) N pH: CRQL MULTIPLIER = 5.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
108-95-2	Phenol	68	
111-44-4	Bis(2-Chloroethyl)Ether	50	U
95-57-8	2-Chlorophenol	50	U
541-73-1	1,3-Dichlorobenzene	50	U
106-46-7	1,4-Dichlorobenzene	50	U
95-50-1	1,2-Dichlorobenzene	50	U
95-48-7	2-Methylphenol	50	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	27	J
106-44-5	4-Methylphenol	50	U
621-64-7	N-Nitrosodi-N-Propylamine	50	U
67-72-1	Hexachloroethane	50	U
98-95-3	Nitrobenzene	50	U
78-59-1	Isophorone	8	J
88-75-5	2-Nitrophenol	50	U
105-67-9	2,4-Dimethylphenol	50	U
111-91-1	Bis(2-Chloroethoxy) Methane	50	U
120-83-2	2,4-Dichlorophenol	50	U
120-82-1	1,2,4-Trichlorobenzene	50	U
91-20-3	Naphthalene	50	U
106-47-8	4-Chloroaniline	50	U
87-68-3	Hexachlorobutadiene	50	U
59-50-7	4-Chloro-3-Methylphenol	50	U
91-57-6	2-Methylnaphthalene	50	U
77-47-4	Hexachlorocyclopentadiene	50	U
88-06-2	2,4,6-Trichlorophenol	50	U
95-95-4	2,4,5-Trichlorophenol	120	U
91-58-7	2-Chloronaphthalene	50	U
88-74-4	2-Nitroaniline	120	U
131-11-3	Dimethylphthalate	50	U
208-96-8	Acenaphthylene	50	U
606-20-2	2,6-Dinitrotoluene	50	U
99-09-2	3-Nitroaniline	120	U
83-32-9	Acenaphthene	50	U

1C

CLIENT SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

ACS-GWMW49-92

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970647807

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 7071414.D

Level: (low/med) LOW Date Received: 06/26/97

% Moisture: decanted: (Y/N) Date Extracted: 06/27/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/07/97

Injection Volume: 2.0 (uL) Dilution Factor: 5.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
51-28-5	2,4-Dinitrophenol	120	U
100-02-7	4-Nitrophenol	U5 120	U
132-64-9	Dibenzofuran	50	U
121-14-2	2,4-Dinitrotoluene	50	U
84-66-2	Diethylphthalate	50	U
7005-72-3	4-Chlorophenyl-phenylether	50	U
86-73-7	Fluorene	50	U
100-01-6	4-Nitroaniline	120	U
534-52-1	4,6-Dinitro-2-Methylphenol	120	U
86-30-6	N-Nitrosodiphenylamine	50	U
101-55-3	4-Bromophenyl-phenylether	50	U
118-74-1	Hexachlorobenzene	50	U
87-86-5	Pentachlorophenol	120	U
85-01-8	Phenanthrene	50	U
120-12-7	Anthracene	50	U
86-74-8	Carbazole	50	U
84-74-2	Di-N-Butylphthalate	50	U
206-44-0	Fluoranthene	50	U
129-00-0	Pyrene	50	U
85-68-7	Butylbenzylphthalate	50	U
91-94-1	3,3'-Dichlorobenzidine	50	U
56-55-3	Benzo(A)Anthracene	50	U
218-01-9	Chrysene	50	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	50	U
117-84-0	Di-N-Octylphthalate	50	U
205-99-2	Benzo(B)Fluoranthene	50	U
207-08-9	Benzo(K)Fluoranthene	50	U
50-32-8	Benzo(A)Pyrene	50	U
193-39-5	Indeno(1,2,3-Cd)Pyrene	50	U
53-70-3	Dibenz(A,H)Anthracene	50	U
191-24-2	Benzo(G,H,I)Perylene	50	U

1F

CLIENT SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

ACS-GWMW49-92

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970647807

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 7071414.D

Level: (low/med) LOW Date Received: 06/26/97

% Moisture: decanted: (Y/N) Date Extracted: 06/27/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/07/97

Injection Volume: 2 (uL) Dilution Factor: 5.0

GPC Cleanup: (Y/N) N pH:

Number TICs Found: 7

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
000112-36-7	ETHANE, 1,1'-OXYBIS[2-ETHOXY	10.55	JN 14	JN
	Unknown	10.90	12	J
	Unknown	12.64	12	J
	Chlorobenzoic acid isomer	14.44	13	J
	Substituted Benzene Isomer	16.81	170	J
	Unknown	21.01	30	J
	Unknown	25.50	26	J

→ 000112-36-7 ETHANE, 1,1'-OXYBIS[2-ETHOXY-]

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1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
ACS-GWMW49-92

MW4992

Lab Name: INDUSTRIAL & ENVIRONMENTA Contract: SOW 1/91

DATE SAMPLED: 6/25/97

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970647807

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P4070197_029.D

% Moisture: _____ decanted: (Y/N)___ Date Received: 06/26/97

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 06/28/97 (3)

Concentrated Extract Volume: 10000(uL) Date Analyzed: 07/10/97 (13)

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CRQL MULTIPLIER = 1.00

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	UJ 0.10	U
72-20-8	Endrin	UJ 0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	UJ 0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	UJ 0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	UJ 0.10	U
7421-93-4	Endrin aldehyde	UJ 0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

CLIENT SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

ACS-GWMW49-92

Lab Name: IEA-NC Method: SOW 1/91

Lab Code: IEA Case No.: 2240-056 SDG No.: 06478

Matrix: (soil/water) WATER Lab Sample ID: 970647807

Sample wt/vol: 5 (g/mL) ml Lab File ID: 0701508.D

Level: (low/med) LOW Date Received: 06/26/97

% Moisture: not dec. Date Analyzed: 07/01/97

GC Column: DB-624 ID: .53(mm) Dilution Factor: 40.0

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

Number TICs Found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

B

APPENDIX B

LABORATORY ANALYTICAL DATA
UPPER AQUIFER – INORGANICS

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

ACS-GW MW14-02 6-30-97

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_059___ SAS No.: _____ SDG No.: 06511_

Matrix (soil/water): WATER Lab Sample ID: 970704716

Level (low/med): LOW__ Date Received: 07/01/97

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	13800			P
7440-36-0	Antimony_	2.3	B		P
7440-38-2	Arsenic__	11.2			P
7440-39-3	Barium___	112	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium__	1.0	U		P
7440-70-2	Calcium__	104000			P
7440-47-3	Chromium_	36.4			P
7440-48-4	Cobalt___	12.2	B		P
7440-50-8	Copper___	26.4			P
7439-89-6	Iron____	33000			P
7439-92-1	Lead____	19.3			P
7439-95-4	Magnesium	25600			P
7439-96-5	Manganese	351			P
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	u 29.0	B		P
7440-09-7	Potassium	uJ 9870		E	P
7782-49-2	Selenium_	2.3	B		P
7440-22-4	Silver___	1.0	U		P
7440-23-5	Sodium___	9460			P
7440-28-0	Thallium_	2.0	U		P
7440-62-2	Vanadium_	34.3	B		P
7440-66-6	Zinc____	63.4			P
_____	Cyanide__	10.0	U		CA

Color Before: BROWN____ Clarity Before: CLOUDY Texture: _____

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
ACS-GWMW15-02

MW15

b Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

b de: IEA___ Case No:2240_056___ SAS No.: _____ SDG No.: 06478_

trix (soil/water): WATER Lab Sample ID: 970647801

vel (low/med): LOW__ Date Received: 06/26/97

Solids: __0.0 6/25/97

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	308			P
7440-36-0	Antimony	2.0	U		P
7440-38-2	Arsenic	41.0			P
7440-39-3	Barium	1070		E	P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	1.0	U		P
7440-70-2	Calcium	67900		E	P
7440-47-3	Chromium	6.1	B		P
7440-48-4	Cobalt	3.8	B		P
7440-50-8	Copper	12.2	B		P
7439-89-6	Iron	5510		E	P
7439-92-1	Lead	5.0			P
7439-95-4	Magnesium	66800		E	P
7439-96-5	Manganese	167		E	P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	19.4	B		P
7440-09-7	Potassium	96500		E	P
7782-49-2	Selenium	2.0	U		P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium	347000		E	P
7440-28-0	Thallium	2.0	U		P
7440-62-2	Vanadium	1.0	U		P
7440-66-6	Zinc	43.6			P
	Cyanide	10.0	U		CA

lor Before: BROWN____ Clarity Before: CLEAR_ Texture: _____

lor After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

mments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
ACS-GWMW18-02

MW18

.b Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

ode: IEA___ Case No:2240_056___ SAS No.: _____ SDG No.: 06478_

trix (soil/water): WATER Lab Sample ID: 970647805

vel (low/med): LOW__ Date Received: 06/26/97

Solids: __0.0 6/25/97

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	55.8	B		P_
7440-36-0	Antimony_	2.0	U		P_
7440-38-2	Arsenic__	2.0	U		P_
7440-39-3	Barium__	24.8	B	E	P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	63700		E	P_
7440-47-3	Chromium_	5.8	B		P_
7440-48-4	Cobalt___	1.0	U		P_
7440-50-8	Copper___	6.7	B		P_
7439-89-6	Iron____	54.2	B	E	P_
7439-92-1	Lead____	6.3			P_
7439-95-4	Magnesium	19600		E	P_
7439-96-5	Manganese	24.4		E	P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	2.4	B		P_
7440-09-7	Potassium	2720	B	E	P_
7782-49-2	Selenium_	3.2	B		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	67700		E	P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	1.0	U		P_
7440-66-6	Zinc____	67.3			P_
_____	Cyanide__	10.0	U		CA

olor Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

olor After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

omments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW19
HCS-GWMW 19-02

Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_064___ SAS No.: _____ SDG No.: 07050_

Matrix (soil/water): WATER Lab Sample ID: 970705001

Level (low/med): LOW__ Date Received: 07/01/97

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	[redacted]			P_
7440-36-0	Antimony_	2.0	U		P_
7440-38-2	Arsenic__	[redacted]			P_
7440-39-3	Barium___	[redacted]			P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	[redacted]			P_
7440-47-3	Chromium_	[redacted]			P_
7440-48-4	Cobalt___	[redacted]			P_
7440-50-8	Copper___	UJ [redacted]			P_
7439-89-6	Iron____	[redacted]			P_
7439-92-1	Lead____	[redacted]			P_
7439-95-4	Magnesium	[redacted]			P_
7439-96-5	Manganese	[redacted]			P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	[redacted]			P_
7440-09-7	Potassium	[redacted]			P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	[redacted]			P_
7440-28-0	Thallium_	[redacted]			P_
7440-62-2	Vanadium_	[redacted]			P_
7440-66-6	Zinc____	UJ [redacted]			P_
_____	Cyanide__	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW19
HCS-GWMW19-07

ab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

a. Code: IEA___ Case No:2240_064___ SAS No.: _____ SDG No.: 07050_

atrix (soil/water): WATER Lab Sample ID: 970705001

evel (low/med): LOW__ Date Received: 07/01/97

Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	[redacted]			P
7440-36-0	Antimony	2.0	U		P
7440-38-2	Arsenic	[redacted]			P
7440-39-3	Barium	[redacted]			P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	1.0	U		P
7440-70-2	Calcium	[redacted]			P
7440-47-3	Chromium	[redacted]			P
7440-48-4	Cobalt	[redacted]			P
7440-50-8	Copper	UJ [redacted]			P
7439-89-6	Iron	[redacted]			P
7439-92-1	Lead	[redacted]			P
7439-95-4	Magnesium	[redacted]			P
7439-96-5	Manganese	[redacted]			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	[redacted]			P
7440-09-7	Potassium	[redacted]			P
7782-49-2	Selenium	2.0	U		P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium	[redacted]			P
7440-28-0	Thallium	[redacted]			P
7440-62-2	Vanadium	[redacted]			P
7440-66-6	Zinc	UJ [redacted]			P
	Cyanide	10.0	U		CA

olor Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

olor After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

omments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW37
HCS-GWMW37-02

ab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

ab Code: IEA___ Case No:2240_054___ SAS No.: _____ SDG No.: 06448_

atrix (soil/water): WATER Lab Sample ID: 970647619

evel (low/med): LOW__ Date Received: 06/26/97

Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	~~6647~~	~~B~~		P_
7440-36-0	Antimony_	2.0	U		P_
7440-38-2	Arsenic__	2.0	U		P_
7440-39-3	Barium___	~~22.5~~	~~B~~		P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	~~37400~~		E	P_
7440-47-3	Chromium_	~~2.8~~	~~B~~		P_
7440-48-4	Cobalt___	~~5.1~~	~~B~~		P_
7440-50-8	Copper___	~~6.9~~	~~B~~		P_
7439-89-6	Iron_____	~~2140~~			P_
7439-92-1	Lead_____	U 3.9			P_
7439-95-4	Magnesium	~~9490~~			P_
7439-96-5	Manganese	~~154~~			P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	~~9.3~~	~~B~~		P_
7440-09-7	Potassium	~~1050~~	~~B~~		P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	~~3620~~			P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	~~1.0~~	~~B~~		P_
7440-66-6	Zinc_____	U 17.5	B		P_
_____	Cyanide__	10.0	U		CA
_____	_____	_____			

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
ACS-GWMW38-02

MW38

b Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

b de: IEA___ Case No:2240_056___ SAS No.: _____ SDG No.: 06478_

trix (soil/water): WATER Lab Sample ID: 970647804

vel (low/med): LOW__ Date Received: 06/26/97

Solids: __0.0 6/25/97

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	134	B		P
7440-36-0	Antimony	2.0	U		P
7440-38-2	Arsenic	2.0	U		P
7440-39-3	Barium	33.1	B	E	P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	1.0	U		P
7440-70-2	Calcium	54900		E	P
7440-47-3	Chromium	4.2	B		P
7440-48-4	Cobalt	7.1	B		P
7440-50-8	Copper	9.7	B		P
7439-89-6	Iron	1940		E	P
7439-92-1	Lead	1.1	B		P
7439-95-4	Magnesium	19400		E	P
7439-96-5	Manganese	1270		E	P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	21.8	B		P
7440-09-7	Potassium	593	B	E	P
7782-49-2	Selenium	2.0	U		P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium	5400		E	P
7440-28-0	Thallium	2.0	U		P
7440-62-2	Vanadium	2.7	B		P
7440-66-6	Zinc	72.7			P
	Cyanide	10.0	U		CA

lor Before: BROWN____ Clarity Before: CLOUDY Texture: _____

lor After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

mments:

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1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
ACS-GWMW39-02

MW39

ab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

a ode: IEA___ Case No:2240_056___ SAS No.: _____ SDG No.: 06478_

atrix (soil/water): WATER Lab Sample ID: 970647911

evel (low/med): LOW__ Date Received: 06/26/97

Solids: __0.0 6/25/97

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	153	B		P
7440-36-0	Antimony	2.0	U		P
7440-38-2	Arsenic	2.0	U		P
7440-39-3	Barium	67.8	B	E	P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	1.0	U		P
7440-70-2	Calcium	101000		E	P
7440-47-3	Chromium	2.5	B		P
7440-48-4	Cobalt	1.0	U		P
7440-50-8	Copper	2.8	B		P
7439-89-6	Iron	6730		E	P
7439-92-1	Lead	1.0	B		P
7439-95-4	Magnesium	17500		E	P
7439-96-5	Manganese	779		E	P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	3.1	B		P
7440-09-7	Potassium	7290		E	P
7782-49-2	Selenium	2.0	U		P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium	110000		E	P
7440-28-0	Thallium	2.0	U		P
7440-62-2	Vanadium	1.0	U		P
7440-66-6	Zinc	9.5	B		P
	Cyanide	10.0	U		CA

olor Before: COLORLESS Clarity Before: CLOUDY Texture: _____

olor After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

omments:

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1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

ACS-GWMW40-02
6-26-97

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_059___ SAS No.: _____ SDG No.: 06511_

Matrix (soil/water): WATER Lab Sample ID: 970651103

Level (low/med): LOW__ Date Received: 06/27/97

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	941			P
7440-36-0	Antimony_	2.0	U		P
7440-38-2	Arsenic__	2.0	U		P
7440-39-3	Barium___	23.9	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium__	1.0	U		P
7440-70-2	Calcium__	17200			P
7440-47-3	Chromium_	U 5.7	B		P
7440-48-4	Cobalt___	2.6	B		P
7440-50-8	Copper___	U 8.2	B		P
7439-89-6	Iron_____	3060			P
7439-92-1	Lead_____	U 4.6			P
7439-95-4	Magnesium	U 7030			P
7439-96-5	Manganese	365			P
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	U 7.2	B		P
7440-09-7	Potassium	UJ 1030	B	E	P
7782-49-2	Selenium_	2.0	U		P
7440-22-4	Silver___	1.0	U		P
7440-23-5	Sodium___	3320	B		P
7440-28-0	Thallium_	2.0	U		P
7440-62-2	Vanadium_	3.1	B		P
7440-66-6	Zinc_____	U 20.0			P
_____	Cyanide__	10.0	U		CA

Color Before: BROWN____ Clarity Before: CLOUDY Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW41
ACS-GWMW41-02

b Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

l ode: IEA___ Case No:2240_056___ SAS No.: _____ SDG No.: 06478_

trix (soil/water): WATER Lab Sample ID: 970647908

vel (low/med): LOW__ Date Received: 06/26/97

Solids: __0.0 6/25/97

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	J 289			P_
7440-36-0	Antimony_	2.0	U		P_
7440-38-2	Arsenic_	2.0	U		P_
7440-39-3	Barium	J 17.3	B	E	P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium_	1.0	U		P_
7440-70-2	Calcium	J 33300		E	P_
7440-47-3	Chromium_	U 7.4	B		P_
7440-48-4	Cobalt_	1.0	U		P_
7440-50-8	Copper	UJ 9.2	B		P_
7439-89-6	Iron	J 302		E	P_
7439-92-1	Lead	J 10.3			P_
7439-95-4	Magnesium	J 10900		E	P_
7439-96-5	Manganese	J 72.6		E	P_
7439-97-6	Mercury_	0.20	U		CV
7440-02-0	Nickel	U 5.7	B		P_
7440-09-7	Potassium	J 359	B	E	P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver_	1.0	U		P_
7440-23-5	Sodium	J 2900	B	E	P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium	1.1	B		P_
7440-66-6	Zinc	UJ 36.8			P_
	Cyanide_	10.0	U		CA

olor Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

olor After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

omments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
mw41 Dup

MW419
ACS-GW mw41-92

b Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

ode: IEA___ Case No:2240_056___ SAS No.: _____ SDG No.: 06478_

trix (soil/water): WATER Lab Sample ID: 970647910

vel (low/med): LOW__ Date Received: 06/26/97
6/25/97

Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	J 512			P
7440-36-0	Antimony	2.0	U		P
7440-38-2	Arsenic	2.0	U		P
7440-39-3	Barium	J 19.3	B	E	P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	1.0	U		P
7440-70-2	Calcium	J 33600		E	P
7440-47-3	Chromium	U 6.8	B		P
7440-48-4	Cobalt	1.0	U		P
7440-50-8	Copper	U J 5.5	B		P
7439-89-6	Iron	J 733		E	P
7439-92-1	Lead	J 5.3			P
7439-95-4	Magnesium	J 11300		E	P
7439-96-5	Manganese	J 141		E	P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	U 6.3	B		P
7440-09-7	Potassium	J 412	B	E	P
7782-49-2	Selenium	2.0	U		P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium	J 2590	B	E	P
7440-28-0	Thallium	2.0	U		P
7440-62-2	Vanadium	1.4	B		P
7440-66-6	Zinc	U J 19.5	B		P
	Cyanide	10.0	U		CA

olor Before: COLORLESS Clarity Before: CLOUDY Texture: _____

olor After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

omments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
ACS-GWMW42-02

MW42

Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

de: IEA___ Case No:2240_056___ SAS No.: _____ SDG No.: 06478_

trix (soil/water): WATER Lab Sample ID: 970650317

vel (low/med): LOW__ Date Received: 06/27/97

Solids: __0.0 6/24/97

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	725			P_
7440-36-0	Antimony_	2.0	U		P_
7440-38-2	Arsenic_	7.5	B		P_
7440-39-3	Barium_	71.3	B	E	P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium_	1.0	U		P_
7440-70-2	Calcium_	105000		E	P_
7440-47-3	Chromium_	8.1	B		P_
7440-48-4	Cobalt_	1.8	B		P_
7440-50-8	Copper_	9.2	B		P_
7439-89-6	Iron_	6300		E	P_
7439-92-1	Lead_	2.2	B		P_
7439-95-4	Magnesium	38700		E	P_
7439-96-5	Manganese	597		E	P_
7439-97-6	Mercury_	0.20	U		CV
7440-02-0	Nickel_	7.7	B		P_
7440-09-7	Potassium	1540	B	E	P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver_	1.0	U		P_
7440-23-5	Sodium_	11400		E	P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	1.8	B		P_
7440-66-6	Zinc_	17.8	B		P_
	Cyanide_	10.0	U		CA

lor Before: BROWN____ Clarity Before: CLOUDY Texture: _____

lor After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

mments:

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1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
MW42 Dup
MW4292
ACS-GWMW42-92

ab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

ode: IEA___ Case No:2240_056___ SAS No.: _____ SDG No.: 06478_

atrix (soil/water): WATER Lab Sample ID: 970650318

evel (low/med): LOW__ Date Received: 06/27/97

6/26/97

Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	694			P
7440-36-0	Antimony	2.0	U		P
7440-38-2	Arsenic	8.2	B		P
7440-39-3	Barium	71.0	B	E	P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	1.0	U		P
7440-70-2	Calcium	105000		E	P
7440-47-3	Chromium	8.5	B		P
7440-48-4	Cobalt	1.8	B		P
7440-50-8	Copper	11.8	B		P
7439-89-6	Iron	6960		E	P
7439-92-1	Lead	3.0	B		P
7439-95-4	Magnesium	39000		E	P
7439-96-5	Manganese	599		E	P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	9.5	B		P
7440-09-7	Potassium	1530	B	E	P
7782-49-2	Selenium	2.0	U		P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium	11700		E	P
7440-28-0	Thallium	2.0	U		P
7440-62-2	Vanadium	1.8	B		P
7440-66-6	Zinc	18.8	B		P
	Cyanide	10.0	U		CA

olor Before: BROWN____ Clarity Before: CLOUDY Texture: _____

olor After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

omments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
ACS-GWMW43-02

MW43

.b Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

ode: IEA___ Case No:2240_056___ SAS No.: _____ SDG No.: 06478_

trix (soil/water): WATER Lab Sample ID: 970650315

vel (low/med): LOW__ Date Received: 06/27/97

Solids: __0.0 6/24/97

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4270			P
7440-36-0	Antimony	2.0	U		P
7440-38-2	Arsenic	31.4			P
7440-39-3	Barium	J 80.6	B	E	P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	1.0	U		P
7440-70-2	Calcium	J 123000		E	P
7440-47-3	Chromium	25.9			P
7440-48-4	Cobalt	8.0	B		P
7440-50-8	Copper	39.4			P
7439-89-6	Iron	J 22200		E	P
7439-92-1	Lead	15.9			P
7439-95-4	Magnesium	J 55400		E	P
7439-96-5	Manganese	J 586		E	P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	23.1	B		P
7440-09-7	Potassium	J 2770	B	E	P
7782-49-2	Selenium	2.0	U		P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium	J 10300		E	P
7440-28-0	Thallium	2.0	U		P
7440-62-2	Vanadium	12.8	B		P
7440-66-6	Zinc	J 56.5			P
	Cyanide	10.0	U		CA

olor Before: BROWN____ Clarity Before: CLOUDY Texture: _____

olor After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

omments:

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EPA SAMPLE NO.

INORGANIC ANALYSES DATA SHEET

ACS-GWMW44-02

MW44

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_056___ SAS No.: _____ SDG No.: 06478_

Matrix (soil/water): WATER Lab Sample ID: 970650620

Level (low/med): LOW__ Date Received: 06/27/97

Solids: __0.0 6/26/97

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1710			P
7440-36-0	Antimony	2.0	U		P
7440-38-2	Arsenic	41.2			P
7440-39-3	Barium	150	B	E	P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	1.0	U		P
7440-70-2	Calcium	85700		E	P
7440-47-3	Chromium	31.3			P
7440-48-4	Cobalt	2.5	B		P
7440-50-8	Copper	27.4			P
7439-89-6	Iron	14700		E	P
7439-92-1	Lead	7.8			P
7439-95-4	Magnesium	36100		E	P
7439-96-5	Manganese	108		E	P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	17.8	B		P
7440-09-7	Potassium	2040	B	E	P
7782-49-2	Selenium	2.0	U		P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium	17400		E	P
7440-28-0	Thallium	2.0	U		P
7440-62-2	Vanadium	3.9	B		P
7440-66-6	Zinc	28.0			P
	Cyanide	10.0	U		CA

Color Before: BROWN____ Clarity Before: CLOUDY Texture: _____

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

ACS-GW MW45-02 6-2697

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_059___ SAS No.: _____ SDG No.: 06511_

Matrix (soil/water): WATER Lab Sample ID: 970651107

Level (low/med): LOW__ Date Received: 06/27/97

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	U 183	B		P_
7440-36-0	Antimony_	2.0	U		P_
7440-38-2	Arsenic__	23.6			P_
7440-39-3	Barium___	84.5	B		P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	89100			P_
7440-47-3	Chromium_	U 5.0	B		P_
7440-48-4	Cobalt___	2.9	B		P_
7440-50-8	Copper___	U 4.4	B		P_
7439-89-6	Iron_____	10100			P_
7439-92-1	Lead_____	12.2			P_
7439-95-4	Magnesium	23200			P_
7439-96-5	Manganese	416			P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	U 7.6	B		P_
7440-09-7	Potassium	UJ 6900		E	P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	79000			P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	1.0	U		P_
7440-66-6	Zinc_____	UJ 21.4			P_
_____	Cyanide__	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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VALIDATED

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW46
ACS-GWM6446-02

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_054___ SAS No.: _____ SDG No.: 06448_

Matrix (soil/water): WATER Lab Sample ID: 970644802

Level (low/med): LOW__ Date Received: 06/25/97

Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	~~544~~	~~B~~		P_
7440-36-0	Antimony_	2.0	U		P_
7440-38-2	Arsenic__	~~3.7~~	~~B~~		P_
7440-39-3	Barium___	~~110~~	~~B~~		P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	~~112000~~		E	P_
7440-47-3	Chromium_	~~4.1~~	~~B~~		P_
7440-48-4	Cobalt___	~~2.0~~	~~B~~		P_
7440-50-8	Copper___	~~4.9~~	~~B~~		P_
7439-89-6	Iron_____	~~21000~~			P_
7439-92-1	Lead_____	U 3.0			P_
7439-95-4	Magnesium	~~20700~~			P_
7439-96-5	Manganese	~~1390~~			P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	~~4.7~~	~~B~~		P_
7440-09-7	Potassium	~~1300~~	~~B~~		P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	~~58600~~			P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	~~3.0~~	~~B~~		P_
7440-66-6	Zinc_____	U 16.0	B		P_
_____	Cyanide__	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

ACS-GW MW47-02 6-26-97

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_059___ SAS No.: _____ SDG No.: 06511_

Matrix (soil/water): WATER Lab Sample ID: 970651106

Level (low/med): LOW__ Date Received: 06/27/97

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	1630	_		P_
7440-36-0	Antimony_	2.0	U		P_
7440-38-2	Arsenic__	2.0	U		P_
7440-39-3	Barium___	12.1	B		P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	6130			P_
7440-47-3	Chromium_	u 6.8	B		P_
7440-48-4	Cobalt___	1.3	B		P_
7440-50-8	Copper___	u 8.0	B		P_
7439-89-6	Iron____	1130	_		P_
7439-92-1	Lead____	12.2	_		P_
7439-95-4	Magnesium	u 1950	B		P_
7439-96-5	Manganese	16.1	_		P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	u 4.8	B		P_
7440-09-7	Potassium	UJ 1050	B	E	P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	1780	B		P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	3.5	B		P_
7440-66-6	Zinc____	u 41.5	_		P_
_____	Cyanide__	10.0	U		CA

Color Before: BROWN____ Clarity Before: CLOUDY Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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VALIDATED

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

ACS-GW MW48-02 6-26-97

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No: 2240_059___ SAS No.: _____ SDG No.: 06511_

Matrix (soil/water): WATER Lab Sample ID: 970651208

Level (low/med): LOW__ Date Received: 06/27/97

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	U 146	B		P_
7440-36-0	Antimony_	2.0	U		P_
7440-38-2	Arsenic__	9.4	B		P_
7440-39-3	Barium___	125	B		P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	107,000			P_
7440-47-3	Chromium_	U 3.9	B		P_
7440-48-4	Cobalt___	3.3	B		P_
7440-50-8	Copper___	U 4.8	B		P_
7439-89-6	Iron____	23,300			P_
7439-92-1	Lead____	U 2.5	B		P_
7439-95-4	Magnesium	14,300			P_
7439-96-5	Manganese	504			P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	U 15.7	B		P_
7440-09-7	Potassium	UJ 8470		E	P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	43600			P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	1.6	B		P_
7440-66-6	Zinc____	U 25.8			P_
_____	Cyanide__	10.0	U		CA
_____	_____	_____			

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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VALIDATED

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW49
ACS-GWMW49-02

ab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

ode: IEA___ Case No:2240_056___ SAS No.: _____ SDG No.: 06478_

atrix (soil/water): WATER Lab Sample ID: 970647806

evel (low/med): LOW__ Date Received: 06/26/97

6/25/97

Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	273			P
7440-36-0	Antimony	2.0	U		P
7440-38-2	Arsenic	26.1			P
7440-39-3	Barium	127	B	E	P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	1.0	U		P
7440-70-2	Calcium	94200		E	P
7440-47-3	Chromium	4.0	B		P
7440-48-4	Cobalt	2.4	B		P
7440-50-8	Copper	5.3	B		P
7439-89-6	Iron	26700		E	P
7439-92-1	Lead	5.7			P
7439-95-4	Magnesium	11800		E	P
7439-96-5	Manganese	2150		E	P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	14.3	B		P
7440-09-7	Potassium	5340		E	P
7782-49-2	Selenium	2.0	U		P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium	29700		E	P
7440-28-0	Thallium	2.0	U		P
7440-62-2	Vanadium	1.0	U		P
7440-66-6	Zinc	77.3			P
	Cyanide	10.0	U		CA

olor Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

olor After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

omments:

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1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
PCS-GWMW01S-02

MW1S

ab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

ode: IEA___ Case No:2240_056___ SAS No.: _____ SDG No.: 06478_

atrix (soil/water): WATER Lab Sample ID: 970650314

evel (low/med): LOW__ Date Received: 06/27/97

Solids: __0.0 6/27/97

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	u 105	B		P
7440-36-0	Antimony	2.0	U		P
7440-38-2	Arsenic	2.0	U		P
7440-39-3	Barium	528		E	P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	1.0	U		P
7440-70-2	Calcium	212000		E	P
7440-47-3	Chromium	u 3.6	B		P
7440-48-4	Cobalt	2.2	B		P
7440-50-8	Copper	u 3.0	B		P
7439-89-6	Iron	19700		E	P
7439-92-1	Lead	1.0	U		P
7439-95-4	Magnesium	73400		E	P
7439-96-5	Manganese	577		E	P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	u 6.2	B		P
7440-09-7	Potassium	46400		E	P
7782-49-2	Selenium	2.0	U		P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium	67300		E	P
7440-28-0	Thallium	2.0	U		P
7440-62-2	Vanadium	1.8	B		P
7440-66-6	Zinc	u 15.1	B		P
	Cyanide	10.0	U		CA

Color Before: BROWN____ Clarity Before: CLEAR_ Texture: _____

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
ACS-GHMW02S-02

MW2S

ab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

a Code: IEA___ Case No:2240_056___ SAS No.: _____ SDG No.: 06478_

atrix (soil/water): WATER Lab Sample ID: 970650619

evel (low/med): LOW__ Date Received: 06/27/97

Solids: __0.0 6/26/97

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	U 104	B		P
7440-36-0	Antimony	2.0	U		P
7440-38-2	Arsenic	3.3	B		P
7440-39-3	Barium	S 95.2	B	E	P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	1.0	U		P
7440-70-2	Calcium	S 124000		E	P
7440-47-3	Chromium	U 3.2	B		P
7440-48-4	Cobalt	1.1	B		P
7440-50-8	Copper	U 3.9	B		P
7439-89-6	Iron	S 25300		E	P
7439-92-1	Lead	U 2.2	B		P
7439-95-4	Magnesium	S 35100		E	P
7439-96-5	Manganese	S 1340		E	P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	U 3.1	B		P
7440-09-7	Potassium	S 4580	B	E	P
7782-49-2	Selenium	2.0	U		P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium	S 17200		E	P
7440-28-0	Thallium	2.0	U		P
7440-62-2	Vanadium	1.8	B		P
7440-66-6	Zinc	U 12.1	B		P
	Cyanide	10.0	U		CA

Color Before: BROWN____ Clarity Before: CLOUDY Texture: _____

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
AKS-GWMW035-02

MW3S

ab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

a. Code: IEA___ Case No:2240_056___ SAS No.: _____ SDG No.: 06478_

atrix (soil/water): WATER Lab Sample ID: 970650316

evel (low/med): LOW__ Date Received: 06/27/97

Solids: __0.0 6/26/97

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	72.1	B		P
7440-36-0	Antimony	2.0	U		P
7440-38-2	Arsenic	6.7	B		P
7440-39-3	Barium	112	B	E	P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	1.0	U		P
7440-70-2	Calcium	85400		E	P
7440-47-3	Chromium	4.3	B		P
7440-48-4	Cobalt	1.5	B		P
7440-50-8	Copper	3.5	B		P
7439-89-6	Iron	2820		E	P
7439-92-1	Lead	3.0	B		P
7439-95-4	Magnesium	30300		E	P
7439-96-5	Manganese	618		E	P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	8.0	B		P
7440-09-7	Potassium	8330		E	P
7782-49-2	Selenium	2.0	U		P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium	24100		E	P
7440-28-0	Thallium	2.0	U		P
7440-62-2	Vanadium	1.5	B		P
7440-66-6	Zinc	17.1	B		P
	Cyanide	10.0	U		CA

olor Before: BROWN____ Clarity Before: CLEAR_ Texture: _____

olor After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

omments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

ACS-GWMW4S-62
6-26-97

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_059___ SAS No.: _____ SDG No.: 06511_

Matrix (soil/water): WATER Lab Sample ID: 970651105

Level (low/med): LOW__ Date Received: 06/27/97

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	653			P_
7440-36-0	Antimony_	2.0	U		P_
7440-38-2	Arsenic__	5.5	B		P_
7440-39-3	Barium___	737			P_
7440-41-7	Beryllium	1.2	B		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	397000			P_
7440-47-3	Chromium_	u 5.8	B		P_
7440-48-4	Cobalt___	6.3	B		P_
7440-50-8	Copper___	u 5.9	B		P_
7439-89-6	Iron_____	39500			P_
7439-92-1	Lead_____	u 2.2	B		P_
7439-95-4	Magnesium	49500			P_
7439-96-5	Manganese	353			P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	u 17.2	B		P_
7440-09-7	Potassium	uJ 23000		E	P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	130,000			P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	3.4	B		P_
7440-66-6	Zinc_____	u 20.4			P_
_____	Cyanide__	10.0	U		CA
_____	_____	_____			

Color Before: BROWN____ Clarity Before: CLOUDY Texture: _____

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW6
ACS-AUMW6-02

ab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

a ode: IEA___ Case No:2240_064___ SAS No.: _____ SDG No.: 07050_

atrix (soil/water): WATER Lab Sample ID: 970705404

evel (low/med): LOW__ Date Received: 07/01/97

Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	[redacted]			P_
7440-36-0	Antimony_	2.0	U		P_
7440-38-2	Arsenic__	[redacted]			P_
7440-39-3	Barium___	[redacted]			P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	[redacted]			P_
7440-47-3	Chromium_	[redacted]			P_
7440-48-4	Cobalt___	[redacted]			P_
7440-50-8	Copper___	[redacted]			P_
7439-89-6	Iron____	[redacted]			P_
7439-92-1	Lead____	[redacted]			P_
7439-95-4	Magnesium	3[redacted]			P_
7439-96-5	Manganese	[redacted]			P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	[redacted]			P_
7440-09-7	Potassium	[redacted]			P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	[redacted]			P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	1.0	U		P_
7440-66-6	Zinc____	U [redacted]			P_
_____	Cyanide__	[redacted]			CA

olor Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

olor After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

omments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW6
ACS-FLDMW6-02

Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

ab Code: IEA___ Case No:2240_064___ SAS No.: _____ SDG No.: 07050_

atrix (soil/water): WATER Lab Sample ID: 970705404

evel (low/med): LOW__ Date Received: 07/01/97

Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	[redacted]			P_
7440-36-0	Antimony_	2.0	U		P_
7440-38-2	Arsenic__	[redacted]			P_
7440-39-3	Barium___	[redacted]			P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	[redacted]			P_
7440-47-3	Chromium_	[redacted]			P_
7440-48-4	Cobalt___	[redacted]			P_
7440-50-8	Copper___	[redacted]			P_
7439-89-6	Iron_____	[redacted]			P_
7439-92-1	Lead_____	[redacted]			P_
7439-95-4	Magnesium	3[redacted]			P_
7439-96-5	Manganese	[redacted]			P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	[redacted]			P_
7440-09-7	Potassium	[redacted]			P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	[redacted]			P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	1.0	U		P_
7440-66-6	Zinc_____	[redacted]			P_
_____	Cyanide__	[redacted]			CA

olor Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

olor After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

omments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

[redacted]
ACS-GWMW11-02

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

L Code: IEA___ Case No:2240_054___ SAS No.: _____ SDG No.: 06448_

Matrix (soil/water): WATER Lab Sample ID: 970644804

Level (low/med): LOW__ Date Received: 06/25/97

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	[redacted]			P_
7440-36-0	Antimony_	2.0	U		P_
7440-38-2	Arsenic__	2.0	U		P_
7440-39-3	Barium___	[redacted]			P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	[redacted]		E	P_
7440-47-3	Chromium_	[redacted]			P_
7440-48-4	Cobalt___	[redacted]			P_
7440-50-8	Copper___	[redacted]			P_
7439-89-6	Iron____	[redacted]			P_
7439-92-1	Lead____	U 5.3			P_
7439-95-4	Magnesium	[redacted]			P_
7439-96-5	Manganese	[redacted]			P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	[redacted]			P_
7440-09-7	Potassium	[redacted]			P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	[redacted]			P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	[redacted]			P_
7440-66-6	Zinc____	[redacted]			P_
_____	Cyanide__	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW12
ACS-GWMW 12-02

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_054___ SAS No.: _____ SDG No.: 06448_

Matrix (soil/water): WATER Lab Sample ID: 970645008

Level (low/med): LOW__ Date Received: 06/25/97

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	~~[illegible]~~			P_
7440-36-0	Antimony_	2.0	U		P_
7440-38-2	Arsenic__	2.0	U		P_
7440-39-3	Barium___	~~[illegible]~~	~~B~~		P_
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	1.0	U		P_
7440-70-2	Calcium__	~~43900~~		E	P_
7440-47-3	Chromium_	~~[illegible]~~			P_
7440-48-4	Cobalt___	~~1.1~~	~~B~~		P_
7440-50-8	Copper___	~~5.0~~	~~B~~		P_
7439-89-6	Iron_____	~~10800~~			P_
7439-92-1	Lead_____	4.1			P_
7439-95-4	Magnesium	~~15700~~			P_
7439-96-5	Manganese	~~1070~~			P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	~~3.6~~	~~B~~		P_
7440-09-7	Potassium	~~2610~~	~~B~~		P_
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___	~~8600~~			P_
7440-28-0	Thallium_	2.0	U		P_
7440-62-2	Vanadium_	~~7.9~~	~~B~~		P_
7440-66-6	Zinc_____	11.5	B		P_
_____	Cyanide__	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

ACS-GWMW13-02
6-27-97

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: _____

Lab Code: IEA___ Case No:2240_059___ SAS No.: _____ SDG No.: 06511_

Matrix (soil/water): WATER Lab Sample ID: 970702313

Level (low/med): LOW__ Date Received: 06/28/97

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	427			P
7440-36-0	Antimony_	2.0	U		P
7440-38-2	Arsenic__	2.0	U		P
7440-39-3	Barium___	68.2	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium__	1.0	U		P
7440-70-2	Calcium__	107,000			P
7440-47-3	Chromium_	u 4.2	B		P
7440-48-4	Cobalt___	1.7	B		P
7440-50-8	Copper___	u 4.3	B		P
7439-89-6	Iron_____	5780			P
7439-92-1	Lead_____	u 2.3	B		P
7439-95-4	Magnesium	30,000			P
7439-96-5	Manganese	656			P
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	u 4.3	B		P
7440-09-7	Potassium	uJ 2820	B	E	P
7782-49-2	Selenium_	2.0	U		P
7440-22-4	Silver___	1.0	U		P
7440-23-5	Sodium___	35700			P
7440-28-0	Thallium_	2.0	U		P
7440-62-2	Vanadium_	1.8	B		P
7440-66-6	Zinc_____	u 17.2	B		P
	Cyanide__	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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