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**GROUNDWATER INVESTIGATION REPORT
PIERCE AND STEVENS FACILITY
BUFFALO, NEW YORK**

PREPARED FOR:

SOVEREIGN SPECIALTY CHEMICALS, INC.

**710 Ohio Street
Buffalo, NY 14203**

PREPARED BY:

IT Corporation

300 West Washington Street

Suite 900

Chicago, Illinois 60606

March 2000

Project Number 768912

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1.0 INTRODUCTION

IT Corporation (IT) on behalf of Sovereign Specialty Chemicals implemented a groundwater investigation at the Pierce and Stevens facility located at 710 Ohio Street, Buffalo, New York. The groundwater investigation was conducted in accordance with the Groundwater Investigation Work Plan dated January, 1999, and the Field Sampling and QA Plan dated April, 1999 (included as Appendix A). The primary objective of this groundwater investigation is to evaluate groundwater conditions associated with the existing aboveground tank (AST) farm, in anticipation of the construction of a new storage facility. A further objective is to evaluate groundwater conditions at the site border, regionally downgradient from the AST farm area. This work was performed as a requirement for obtaining environmental closure of this site under the New York voluntary cleanup program.

1.1 *Technical Approach*

Four shallow monitoring wells were proposed to evaluate groundwater conditions associated with the existing tank farm, and to evaluate potential offsite sources of groundwater contamination which may be contaminating the Pierce and Stevens site. A fifth monitoring well was proposed to document any potential groundwater impacts at the edge of the property near Ohio Street.

2.0 SITE DESCRIPTION

2.1 *Site Setting*

The Pierce & Stevens Buffalo facility is located at 710 Ohio Street, in the county of Erie. The plant is approximately one mile southeast of the Central Business District of the City of Buffalo. The site is less than 500-feet east of a ship canal which connects to the Buffalo Outer Harbor, and approximately 600-feet west of the Buffalo River.

The subject property encompasses approximately 10-acres of flat lying land in a highly industrialized area on the east side of Ohio Street, adjacent to a number of Conrail railroad tracks. Access to the property is from Ohio Street only. Approximately 80 percent of the land is developed with buildings, storage facilities, or paved parking/truck turnaround areas.

2.2 Regional Geology/Hydrogeology

The bedrock underlying the site consists of Paleozoic sedimentary rocks comprised of limestone, dolomite, sandstone and shale. The rock surface dips in a southerly direction approximately 30-40 feet per mile. The formation underlying the Pierce & Stevens site is the lower Devonian Onondaga limestone. The Onondaga limestone averages approximately 140-feet thick.

As is the case throughout most of the Great Lakes basin areas, the unconsolidated geologic materials overlying the bedrock consist of glacially derived materials deposited in the Late Wisconsinan Glacial advance. These materials vary throughout the area, and consist of ice-deposited till and stratified sand and gravel transported and deposited by water from the melting ice sheets. Stratified silt and clay deposited in lakes associated with the retreating ice sheet also occur in the area.

Groundwater in the Onondaga limestone occurs primarily in joint sets paralleling original bedding planes. Yield from the Onondaga aquifer is commonly in the vicinity of 100 gallons-per-minute (GPM). Recharge to the Onondaga aquifer is from precipitation infiltration in areas where the unit outcrops, and recharge from overlying glacial deposits. Regional horizontal groundwater flow is from areas of high elevation toward Lake Erie.

Groundwater yield in glacial deposits varies widely depending upon the nature of the material; significant yields are possible in well-sorted sand and gravel deposits, while

glacial till and/or lacustrine clay yields are low.

2.3 Site Soil Profiles

Soil boring results from the Pierce & Stevens site indicate that fill materials are present from the surface to a maximum depth of 16-feet. The fill consists of construction materials, asphalt, and soil fill. Natural soils underlying the fill consist of variations of silty clay, silt, and silty sand.

2.4 Site History

Information obtained during a title search and related historical research conducted as part of a Phase I site assessment indicates that at least a portion of the subject property was originally part of the Creek Indian Reservation. The entire area was commonly known as Kelley Island. An 1891 Atlas of the City of Buffalo identified the Western New York and Pennsylvania Railroad Company as the owner of all the property in the area. In October 1924, Pierce & Stevens purchased a portion of the property from the railroad and began construction of the plant. Additional parcels were purchased from the railroad in 1925 and 1927. In 1942 and in 1946, parcels of land south of the original tract were purchased from the Gulf Oil Corporation. In 1957, apparently a small parcel was purchased from the Penndel Company and the lease on an additional parcel owned by the Penndel Company was transferred from the Pennsylvania Railroad to P & S. The land containing the western portion of the present AST farm was purchased from the Rigidized Meals Corporation in 1971.

Conversations with Pierce & Stevens personnel indicate that excavations performed for building additions encountered fill material dating to the early 19th century. The site is believed to be a former municipal landfill.

3.0 ENVIRONMENTAL INVESTIGATION HISTORY

A site-wide Phase II investigation was performed at the subject site in 1996. Soil and groundwater impacts from organic compounds were encountered in this investigation. In 1997, a focused soil investigation was performed in the AST area to document organic levels in soil and evaluate potential treatment/disposal options for soil in this area.

4.0 GROUNDWATER INVESTIGATION

4.1 Overview

The primary objective of this groundwater investigation is to evaluate groundwater conditions associated with the existing aboveground tank farm, in anticipation of the construction of a new storage facility. A further objective is to evaluate groundwater conditions at the site border, regionally downgradient from the tank farm area.

4.2 MONITORING WELL INSTALLATION

As outlined in the Groundwater Investigation Work Plan five groundwater monitoring wells were installed on the Pierce & Stevens, Inc. property on May 10 through 12, 1999. Maxim Technologies, Inc., Hamburg, New York was contracted to advance the soil borings and install the wells at locations shown in Figure 1. Continuous soil samples were collected by 2-inch split spoons driven ahead of the 4.25-inch hollow stem augers. Borings were advanced through the surficial fill to the underlying native clay overburden. After opening each split spoon, a representative soil sample was placed in laboratory prepared glass jars for possible analysis and a portion was put in a resealable plastic bag to screen for volatile organic compounds (VOCs) using a Photoionization Detector (PID). Fill and overburden soils were described noting any staining and/or odors. Soil Boring Logs are present in Appendix B.

The soil sample which exhibited the highest PID reading was submitted for analysis. If elevated PID readings were not encountered a composite soil sample from the fill horizon was collected for analysis. Five soil samples were analyzed for VOCs by EPA Method 8260, semivolatile organic compounds (SVOCs) by EPA Method 8270, polychlorinated biphenyls (PCBs) and pesticides by EPA Method 8080, target analyte list (TAL) inorganic compounds including metals and total cyanide. A total of 5 soil samples were submitted for laboratory analysis.

4.2.1 Monitoring Well Installation and Development

Upon completion of each borehole a two-inch PVC groundwater monitoring well was installed and completed to facilitate collection of groundwater samples. Each well was constructed with a seven and a half foot slotted screen (0.020" slot size) threaded to solid wall PVC riser pipe. The well screens were extended across the fill zone and into the underlying clay a short distance. Appropriately sized sand pack was placed to approximately six inches to one foot above the screened section. A one foot to one and a half feet bentonite pellet seal was installed over the sand pack and each well was completed with either a traffic rated flush mounted road box (MW-1, MW-2 and MW-3) or steel protective stick up (MW-4 and MW-5) cemented in place.

After 24 hours the wells were developed to remove fines from the sand pack and establish greater groundwater flow into the well. This was accomplished by surging and bailing each well using a dedicated polyethylene bailer and/or a foot valve threaded onto disposable polyethylene tubing. An odor and slight sheen were noted at MW-1 during development. No other wells exhibited an odor or sheen. Approximately 11 gallons (MW-3) to 47 gallons (MW-2) of groundwater was removed and containerized pending disposal. The water level in MW-3 was drawn down several times during development but recovered over a short period of time. The water levels in the other wells declined only slightly during

development indicating perched water present through the fill zone atop the tighter clay overburden.

4.2.2 Groundwater Level Measurements

Groundwater elevations were measured several times following well installation, development and sampling. All wells were measured on at least five dates between mid-May and June 1999. On June 14, 1999 the wells were surveyed to determine relative ground and top of casing (TOC) elevations. Table 1 presents the groundwater elevation data. Groundwater appears to flow in a radial direction north and northeast towards the Buffalo River and Lake Erie located west of the property. Groundwater gradient is very low owing to the property's proximity to the river and Lake Erie. Hydraulic conductivity testing, which determines the groundwater velocity of the overburden material the wells are screened across, was not performed.

4.2.3 Groundwater Sampling and Analysis

On May 26, 1999 all five wells were purged a minimum of three well volumes and sampled for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs) and herbicides, total and dissolved metals and total cyanide. Purge water removed from the well was containerized for future disposal. An odor and a slight sheen was noted on groundwater collected from MW-1. Samples were collected from each well using dedicated polyethylene bailers, placed in laboratory prepared glassware and shipped under chain-of-custody documentation to Columbia Analytical Services, Inc. of Rochester, New York. Representatives from Haag Environmental also collected groundwater samples at that time. Analytical results are presented in Appendix C.

4.3 PHYSICAL SITE CHARACTERISTICS

4.3.1 Site-Specific Geology

In the immediate facility area approximately seven to eight feet of varied fill material has been placed over native soils as seen in the five soil borings. It was reported that the site and surrounding area was previously used as a landfill for burned municipal waste and the composition of the material seems to confirm this interpretation. Underlying native soil is composed of moist, firm to stiff silty clay and clayey silt which increases in moisture content and becomes softer and sandier with depth.

Bedrock underlying the site is mapped as Devonian age Onondaga Limestone, a massive limestone with cherty interbeds, which is frequently fossiliferous. No attempt was made to confirm the depth to or type of bedrock underlying the site. The five groundwater monitoring wells installed during this investigation were completed in the overburden, primarily in the fill material.

Fill material mantles the facility and ranges in thickness from approximately six feet (as seen in MW-1) to approximately 8 feet. This material consists of a mixture of sand, gravel, silt, ash, brick fragments, bottles, slag, wood, coal and ceramic chips. Native soils encountered below the fill consists of a heterogeneous mixtures of silty-clay to clayey silt with little to some silty fine sand and plastic clay.

4.3.2 Regional Hydrogeological Setting

The Pierce & Stevens property is located approximately 2,400 feet east of Lake Erie and the Buffalo River is approximately 1,000 feet to the north and east of the site. A shipping channel is approximately 600 feet west of the property. Lake Erie is the ultimate discharge zone for local groundwater found in the unconsolidated overburden deposits. Locally, shallow groundwater is typically found in coarser grained glacially derived sediments or as perched water over deposits of fine grained sediments of lower permeability. Perched

groundwater was encountered in the fill material placed over the finer grained native soils at the site. Contributions of groundwater from bedrock units underlying the site were not considered as no bedrock wells were installed during the assessment.

4.3.3 Site Specific Hydrogeology

On May 26, 1999 depth to groundwater ranged between 4.30 feet and 8.94 feet below TOC in MW-1 through MW-5, which are located at the northern boundary of the property, and was found in the unconsolidated fill materials. Recharge of the water table is provided by meteoric precipitation infiltrating the unpaved areas of the property. During collection of groundwater samples on May 26, 1999 an odor and slight sheen was noted at MW-1.

A slight groundwater divide appears to direct groundwater flow towards the west and east property boundaries. Flow direction is generally to the west from MW-2 towards MW-3 and trends to the east-northeast as measured in wells MW-1, MW-4 and MW-5. Groundwater gradient is relatively flat. This variance in flow directions probably reflects the influence of the surrounding Buffalo River and nearby shipping canal as discharge zones for perched groundwater moving through the unconsolidated fill materials. Figures 2A and 2B show the groundwater contours for May 13, 1999, and June 26, 1999, respectively.

5.0 PRESENCE AND NATURE OF CONTAMINATION

Analytical results for soil and groundwater samples are presented in Tables 2 through 8. Soil and groundwater analytical results are also summarized in Figures 3A, 3B, 4A, and 4B.

5.1 Soils

Five soil samples were collected for analysis of volatile and semivolatile compounds, metals and PCBs by methods listed in section 1.0. Composite soil samples were collected from borings MW-2 (0 - 8'), MW-3 (0 - 10') and MW-4 (0 - 8'). Discrete soil samples were

collected from MW-1 (2' - 4') and MW-5 (6' - 8'). Detected VOCs (acetone, tetrachloroethene and toluene) found in soils collected from MW-2 through MW-4 were at concentrations below the recommended soil cleanup objectives, as listed in the New York State Department of Environmental Conservation's (NYSDEC) Technical and Administrative Guidance Memorandum (TAGM) #4046; Determination of Soil Cleanup Objectives and Cleanup Levels. In the remaining soil samples from MW-1 and MW-5 total VOC concentrations ranged from 135,200 to 1,572 µg/kg or parts per billion (ppb), respectively. The VOC compounds detected were acetone and xylenes in MW-1. In soil analyzed from MW-5, only one VOC, acetone at 200 ppb, was at the NYSDEC recommended soil cleanup objective. VOC results for soil samples are shown on Table 2.

The highest levels of Total SVOC's were detected at MW-3 (77,000 ppb), followed by MW-4 (24,722 ppb), MW-1 (19,635 ppb), MW-2 (9,318 ppb), and MW-5/MW-5DUP (8,070/9,124 ppb). All soil samples exhibited several SVOCs at concentrations above NYSDEC recommended soil cleanup objective. The SVOCs detected in the subsurface are commonly associated with being by-products of combustion (ie. residues resulting from incineration). Results are shown on Table 3.

PCBs, specifically Aroclor-1254, were detected in the composite samples for MW-2 (0 – 8 ft) and MW-3 (0 – 10 ft) and the grab sample from MW-5 (6 – 8 ft). The concentrations of Aroclor 1254 in these samples were 98 µg/kg, 41 µg/kg, and 915 µg/kg (average of two duplicates), respectively. Results are shown in Table 4. Metals detected above background concentrations in some of the soil samples included arsenic, barium, cadmium, calcium, chromium, copper, lead, magnesium, mercury, nickel, selenium and zinc. Results are shown on Table 5. No herbicides or pesticides were detected in any of the soil samples analyzed.

5.2 Groundwater

Five groundwater samples were collected for analysis of volatile and semivolatile compounds, pesticides and PCBs, total cyanide and total and dissolved metals. Total concentrations of VOCs ranged from non-detect (MW-3) to 132,310 ppb (MW-1), but were well below TOG levels in MW-2, MW-3, and MW-4. Liquid phase hydrocarbons, observed as sheens and films, were occasionally noted on groundwater during excavation activities at the site and a sheen was observed on groundwater from MW-1 during purging and sampling of the well. Groundwater analytical results indicate detectable concentrations of benzene in excess of regulatory levels in water samples collected from MW-4 and MW-5.

Toluene was detected above New York State standards in MW-1, MW-4 and MW-5. An exceedance of ethylbenzene was detected in MW-5 at a concentration above the standard of 5 ppb. Exceedances of xylenes and chloroethane were found in MW-1 and MW-5. Methylene chloride, methylcyclopentane and 1,1-dichloroethane were found in groundwater from MW-1. MW-2 exhibited low concentrations of 1,1-dichloroethane and 1,1,1-trichloroethane, while MW-4 had low concentrations of chloroethane, trichloroethene, benzene, toluene and methylcyclopentane. Results are shown in Table 6.

Several semivolatile organic compounds were detected in groundwater from MW-1 through MW-5. Total concentrations of SVOCs ranged from 2.0 (MW-2) to 399.2 ppm at MW-1, but well below TOG levels in MW-2, MW-3, MW-4 and MW-5. Exceedances of 2-Methylphenol, 4-Methylphenol and phenol were detected at MW-1. Results are shown in Table 7.

Levels of dissolved metals above New York State Ambient Water Quality Standards and Guidance Values for iron, sodium, manganese, selenium and mercury were found in one or more groundwater samples. Total metals analysis detected elevated levels of barium, copper, iron, lead, manganese, mercury, sodium and zinc were found in one or more groundwater samples collected. Results are shown in Table 8.

No PCBs or pesticides were detected in any of the groundwater samples collected. Analytical results are presented in Appendix C.

6.0 CONCLUSIONS

IT performed this groundwater investigation in conformance with the Groundwater Investigation Work Plan and the Field Sampling and QA Plan. Based on the results of the investigation, IT concludes the following:

1. The highest concentrations of VOCs in soil and groundwater were detected in MW-1.
2. There is no evidence that contamination from MW-1 is moving offsite to the west. MW-2, located west of MW-1 and east of the most downgradient well (MW-3) had significantly lower concentrations of VOCs than MW-1. MW-3 did not have detectable VOCs in groundwater.
3. The groundwater gradient is low, thereby mitigating the likelihood of offsite migration of contamination.
4. The underlying native material is clay. The clay was encountered at approximately 8 feet below grade and underlies the fill. The presence of the clay layer beneath the fill minimizes the potential for vertical migration of contaminants.

FIGURES

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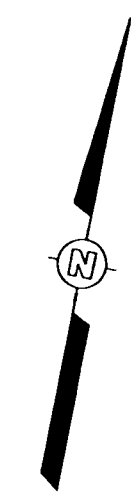
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OHIO STREET

LIMITS OF SITE

LIMITS OF EXCAVATION
PHASE 1

LIMITS OF EXCAVATION
PHASE 2

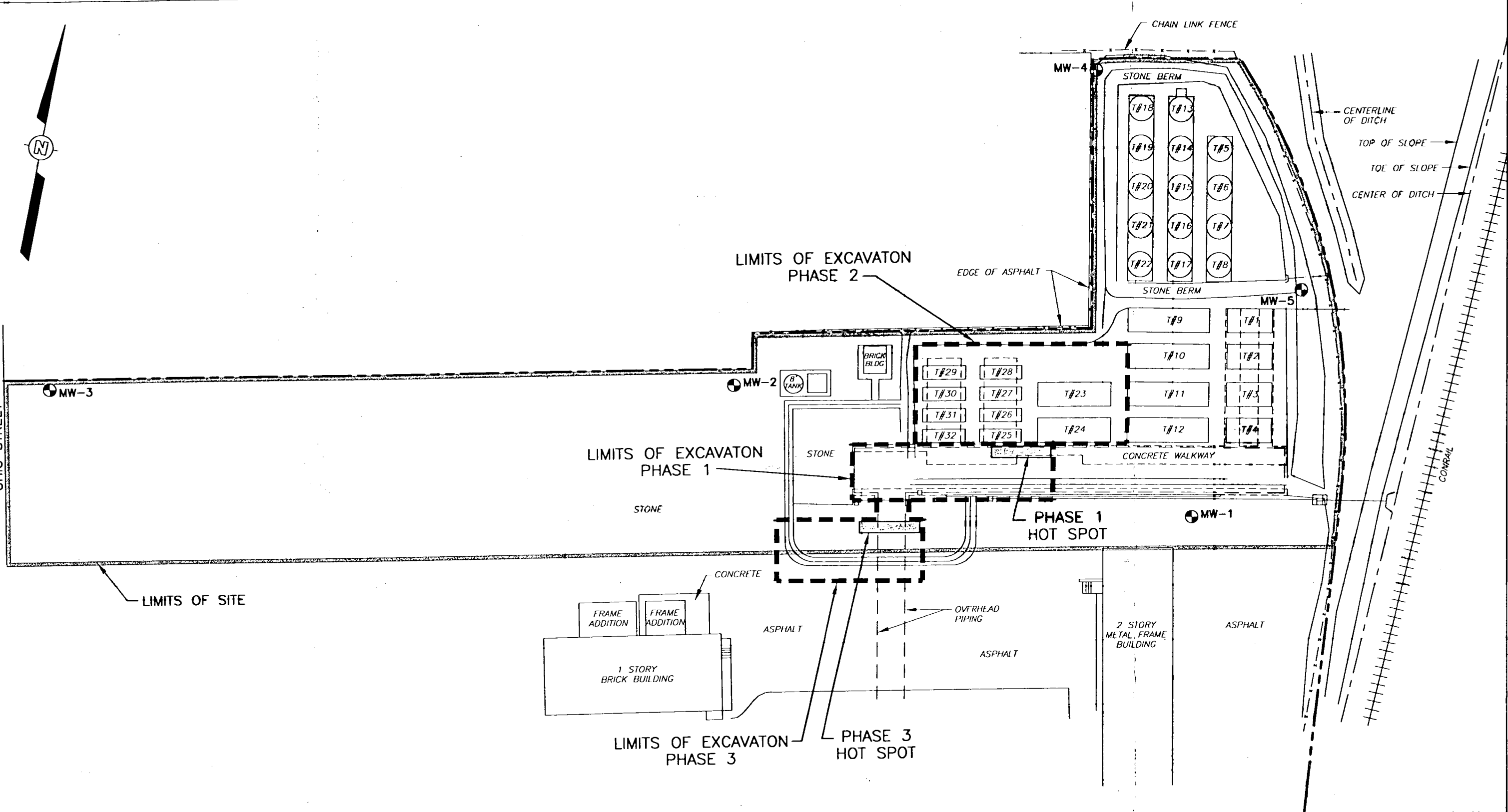
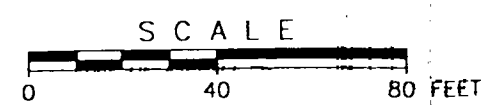
LIMITS OF EXCAVATION
PHASE 3

PHASE 3
HOT SPOT

PHASE 1
HOT SPOT

LEGEND:

MW-1 MONITORING WELL LOCATION



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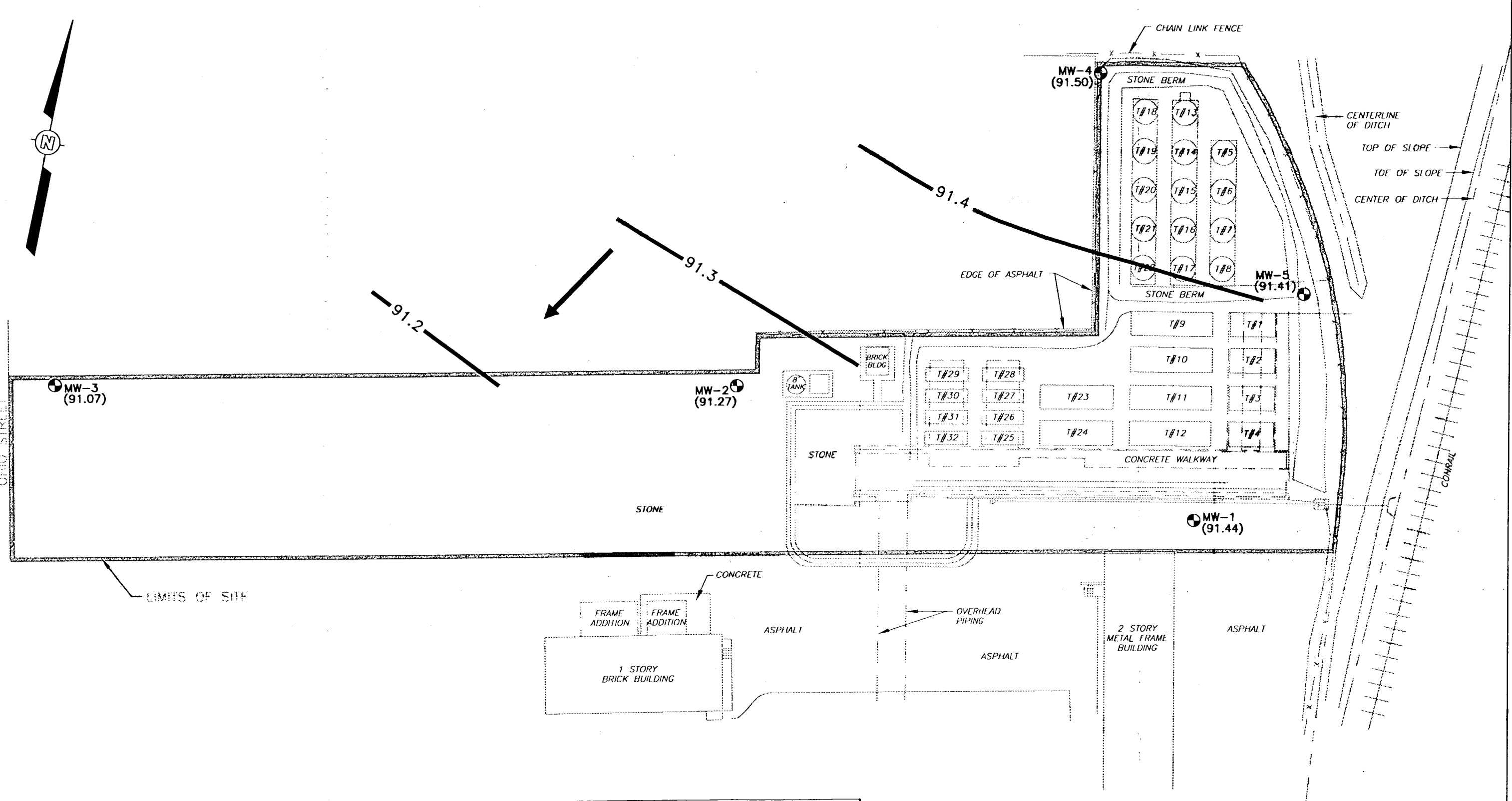
FIGURE 1

BASE MAP
GROUNDWATER INVESTIGATION REPORT

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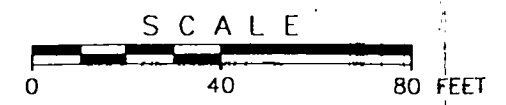
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LEGEND:

- MW-1 (91.44) MONITORING WELL LOCATION GROUNDWATER ELEVATION
- 91.2 GROUNDWATER CONTOUR (1' INTERVAL)
- APPARENT GROUNDWATER FLOW DIRECTION



REFERENCE:
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"TOPOGRAPHIC SURVEY", DATED: 8/17/95, SCALE: 1"=20'.



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FIGURE 2A
GROUNDWATER CONTOUR MAP
MAY 13, 1999
GROUNDWATER INVESTIGATION REPORT

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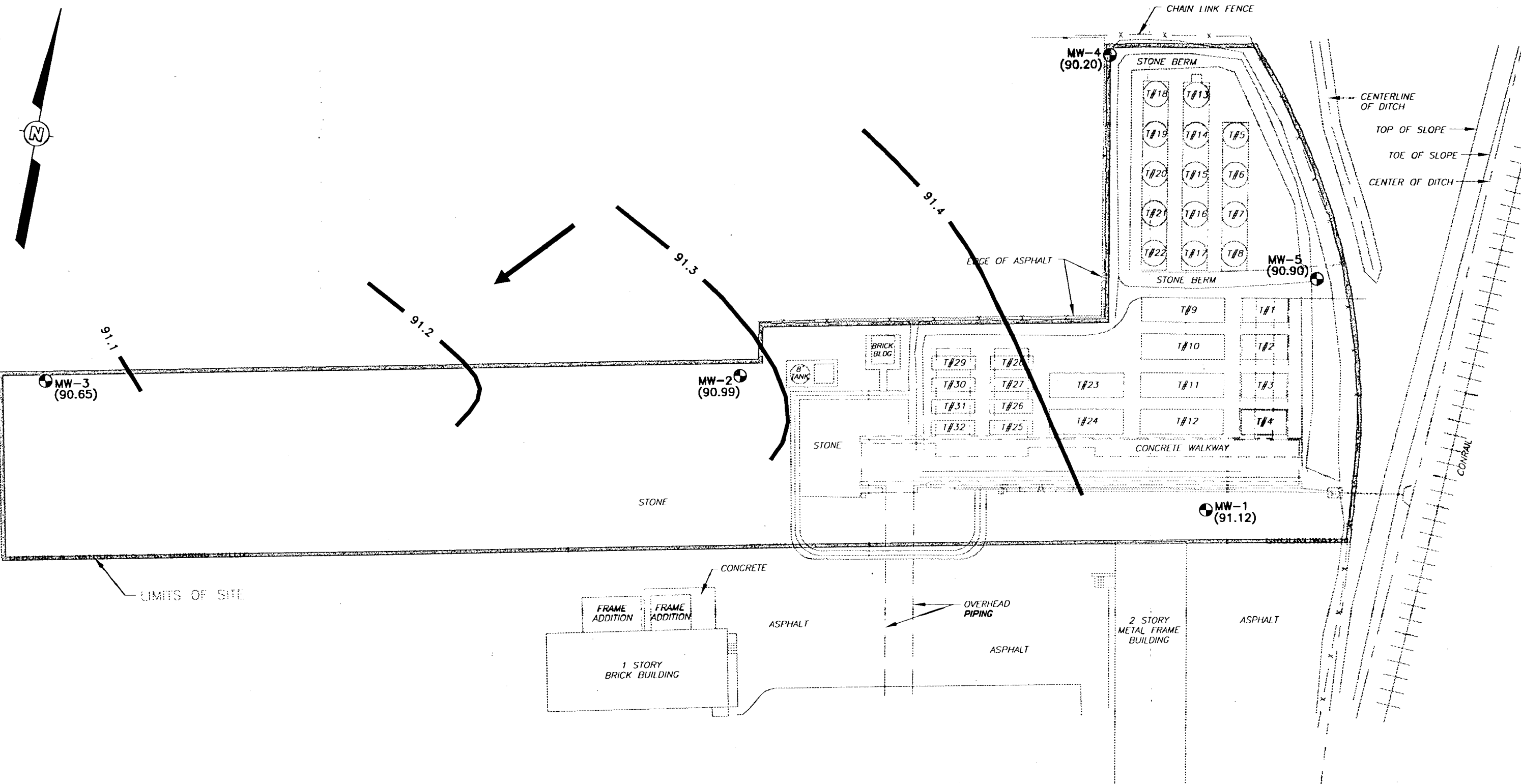
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R. Weibie

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Pittsburgh, PA

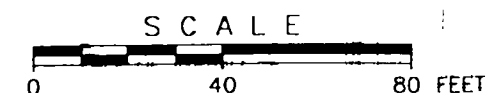
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LEGEND:

- MW-1 (91.12) MONITORING WELL LOCATION
GROUNDWATER ELEVATION
- 91.2 GROUNDWATER CONTOUR
(1' INTERVAL)
- ← APPARENT GROUNDWATER
FLOW DIRECTION



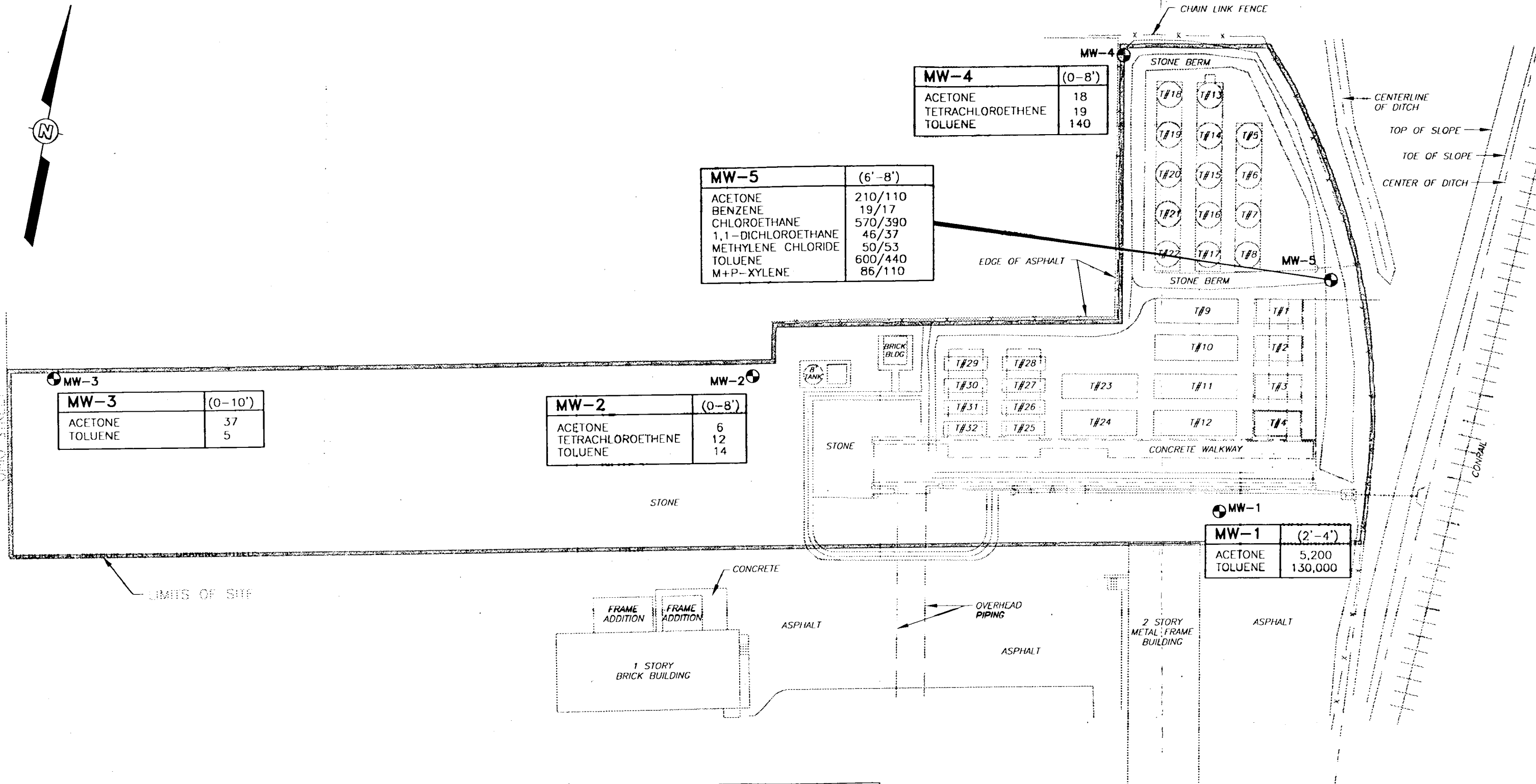
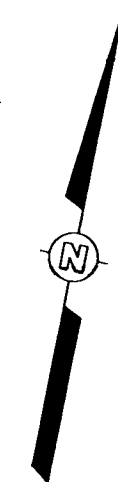
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"TOPOGRAPHIC SURVEY", DATED: 8/17/95, SCALE: 1"=20'.



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FIGURE 2B
GROUNDWATER CONTOUR MAP
JUNE 26, 1999
GROUNDWATER INVESTIGATION REPORT



MW-3	(0-10')
ACETONE	37
TOLUENE	5

MW-2	(0-8')
ACETONE	6
TETRACHLOROETHENE	12
TOLUENE	14

MW-5	(6'-8')
ACETONE	210/110
BENZENE	19/17
CHLOROETHANE	570/390
1,1-DICHLOROETHANE	46/37
METHYLENE CHLORIDE	50/53
TOLUENE	600/440
M+P-XYLENE	86/110

MW-4	(0-8')
ACETONE	18
TETRACHLOROETHENE	19
TOLUENE	140

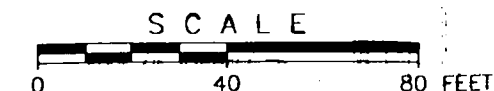
MW-1	(2'-4')
ACETONE	5,200
TOLUENE	130,000

LEGEND:

- MW-1 MONITORING WELL LOCATION
- 200/110 DUPLICATE SAMPLE

NOTES:

- ANALYTICAL RESULTS SHOWN IN $\mu\text{g}/\text{kg}$ (ppb).
- ANALYTICAL RESULTS SHOWN FOR COMPOUNDS ABOVE METHOD DETECTION LIMIT.



REFERENCE:

DEBORAH A. NAYBOR PLS, PC. DRAWING TITLED:
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FIGURE 3A

VOC CONCENTRATIONS IN SOIL
GROUNDWATER INVESTIGATION REPORT

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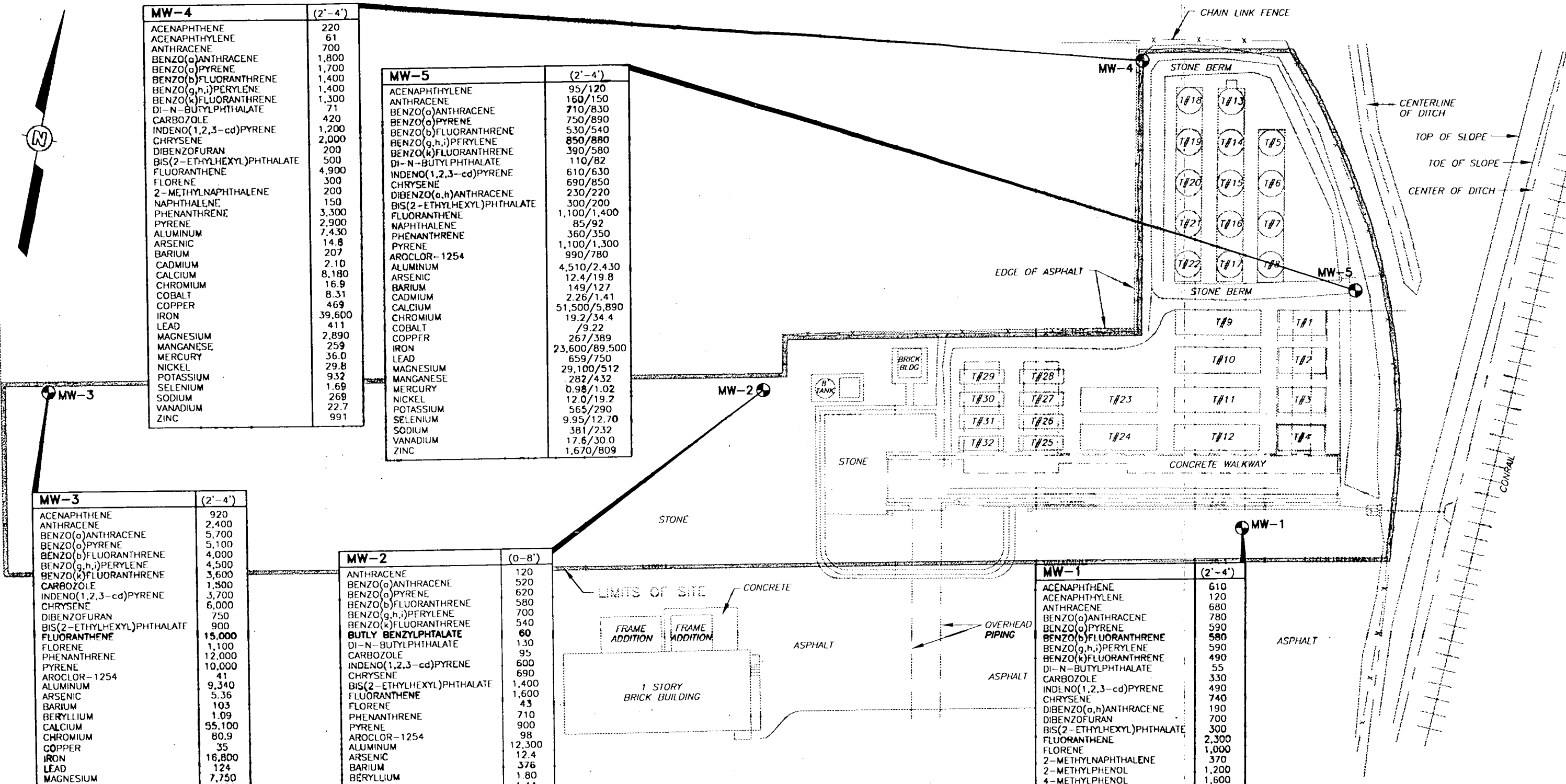
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MW-4	(2'-4')
ACENAPHTHENE	220
ACENAPHTHYLENE	61
ANTHRACENE	700
BENZO(a)ANTHRACENE	1,800
BENZO(a)PYRENE	1,700
BENZO(b)FLUORANTHRENE	1,400
BENZO(g,h,i)PERYLENE	1,400
BENZO(k)FLUORANTHRENE	1,300
DI-N-BUTYLPHthalATE	71
CARBOZOLE	420
INDENO(1,2,3-cd)PYRENE	1,200
CHRYSENE	2,000
DIBENZOFURAN	200
BIS(2-ETHYLHEXYL)PHTHALATE	500
FLUORANTHENE	4,900
FLORENE	300
2-METHYLNAPHTHALENE	200
NAPHTHALENE	150
PHENANTHRENE	3,300
PYRENE	2,900
ALUMINUM	7,430
ARSENIC	14.8
BARIIUM	207
CADMIUM	2.10
CALCIUM	8,180
CHROMIUM	16.9
COBALT	8.31
COPPER	469
IRON	39,600
LEAD	411
MAGNESIUM	2,890
MANGANESE	259
MERCURY	36.0
NICKEL	29.8
POTASSIUM	932
SELENIUM	1.69
SODIUM	269
VANADIUM	22.7
ZINC	991

MW-5	(2'-4')
ACENAPHTHYLENE	95/120
ANTHRACENE	160/150
BENZO(a)ANTHRACENE	710/830
BENZO(a)PYRENE	750/890
BENZO(b)FLUORANTHRENE	530/540
BENZO(g,h,i)PERYLENE	850/880
BENZO(k)FLUORANTHRENE	390/580
DI-N-BUTYLPHthalATE	110/82
INDENO(1,2,3-cd)PYRENE	610/630
CHRYSENE	690/850
DIBENZO(a,h)ANTHRACENE	230/220
BIS(2-ETHYLHEXYL)PHTHALATE	300/200
FLUORANTHENE	1,100/1,400
NAPHTHALENE	85/92
PHENANTHRENE	360/350
PYRENE	1,100/1,300
AROCLOR-1254	990/780
ALUMINUM	4,510/2,430
ARSENIC	12.4/19.8
BARIIUM	149/127
CADMIUM	2.26/1.41
CALCIUM	51,500/5,890
CHROMIUM	19.2/34.4
COBALT	/9.22
COPPER	267/389
IRON	23,600/89,500
LEAD	659/750
MAGNESIUM	29,100/512
MANGANESE	282/432
MERCURY	0.98/1.02
NICKEL	12.0/19.2
POTASSIUM	565/290
SELENIUM	9.95/12.70
SODIUM	381/232
VANADIUM	17.6/30.0
ZINC	1,670/809

MW-3	(2'-4')
ACENAPHTHENE	920
ANTHRACENE	2,400
BENZO(a)ANTHRACENE	5,700
BENZO(a)PYRENE	5,100
BENZO(b)FLUORANTHRENE	4,000
BENZO(g,h,i)PERYLENE	4,500
BENZO(k)FLUORANTHRENE	3,600
CARBOZOLE	1,500
INDENO(1,2,3-cd)PYRENE	3,700
CHRYSENE	6,000
DIBENZOFURAN	750
BIS(2-ETHYLHEXYL)PHTHALATE	900
FLUORANTHENE	15,000
FLORENE	1,100
PHENANTHRENE	12,000
PYRENE	10,000
AROCLOR-1254	41
ALUMINUM	9,340
ARSENIC	5.36
BARIIUM	103
BERYLLIUM	1.09
CALCIUM	55,100
CHROMIUM	80.9
COPPER	35
IRON	16,800
LEAD	124
MAGNESIUM	7,750
MANGANESE	3,080
MERCURY	0.35
NICKEL	10.9
POTASSIUM	718
SODIUM	793
VANADIUM	34.3
ZINC	90.8
TOTAL CYANIDE	2.66

MW-2	(0-8')
ANTHRACENE	120
BENZO(a)ANTHRACENE	520
BENZO(a)PYRENE	620
BENZO(b)FLUORANTHRENE	580
BENZO(g,h,i)PERYLENE	700
BENZO(k)FLUORANTHRENE	540
BUTLY BENZYLPHthalATE	60
DI-N-BUTYLPHthalATE	130
CARBOZOLE	95
INDENO(1,2,3-cd)PYRENE	600
CHRYSENE	690
BIS(2-ETHYLHEXYL)PHTHALATE	1,400
FLUORANTHENE	1,600
FLORENE	43
PHENANTHRENE	710
PYRENE	900
AROCLOR-1254	98
ALUMINUM	12,300
ARSENIC	12.4
BARIIUM	376
BERYLLIUM	1.80
CADMIUM	1.44
CALCIUM	59,800
CHROMIUM	21.0
COPPER	154
IRON	28,300
LEAD	739
MAGNESIUM	10,300
MANGANESE	1,360
MERCURY	0.577
NICKEL	26.8
POTASSIUM	812
SELENIUM	1.17
SILVER	2.07
SODIUM	644
VANADIUM	18.3
ZINC	1,130
TOTAL CYANIDE	0.862

MW-1	(2'-4')
ACENAPHTHENE	610
ACENAPHTHYLENE	120
ANTHRACENE	680
BENZO(a)ANTHRACENE	780
BENZO(a)PYRENE	590
BENZO(b)FLUORANTHRENE	580
BENZO(g,h,i)PERYLENE	590
BENZO(k)FLUORANTHRENE	490
DI-N-BUTYLPHthalATE	55
CARBOZOLE	330
INDENO(1,2,3-cd)PYRENE	490
CHRYSENE	740
DIBENZO(a,h)ANTHRACENE	190
DIBENZOFURAN	700
BIS(2-ETHYLHEXYL)PHTHALATE	300
FLUORANTHENE	2,300
FLORENE	1,000
2-METHYLNAPHTHALENE	370
2-METHYLPHENOL	1,200
4-METHYLPHENOL	1,600
NAPHTHALENE	420
PHENANTHRENE	3,900
PYRENE	1,600
ALUMINUM	6,880
ARSENIC	18.8
BARIIUM	699
CADMIUM	4.77
CALCIUM	6,880
CHROMIUM	22.5
COBALT	7.45
COPPER	420
IRON	43,800
LEAD	622
MAGNESIUM	1,190
MANGANESE	226
MERCURY	3.13
NICKEL	21.7
POTASSIUM	804
SELENIUM	1.57
SODIUM	490
VANADIUM	25.1
ZINC	2,350

LEGEND:
● MW-1 MONITORING WELL LOCATION
230/220 DUPLICATE SAMPLE

NOTES:
1. ANALYTICAL RESULTS SHOWN IN $\mu\text{g/kg}$ (ppb) AND mg/kg (ppm).
2. ANALYTICAL RESULTS SHOWN FOR COMPOUNDS ABOVE METHOD DETECTION LIMIT.

REFERENCE:
DEBORAH A. NAYBOR PLS, PC. DRAWING TITLED:
"TOPOGRAPHIC SURVEY", DATED: 8/17/95, SCALE: 1"=20'.

SCALE
0 40 80 FEET

IT CORPORATION

PIERCE & STEVENS
CHEMICAL CORPORATION
BUFFALO, NEW YORK

FIGURE 3B
SVOC, PCB AND METAL
CONCENTRATIONS IN SOIL
GROUNDWATER INVESTIGATION REPORT

DRAWING NUMBER 768912-B6

APPROVED BY

CHECKED BY

DRAWN BY

OFFICE

Pittsburgh, PA

R. Weible

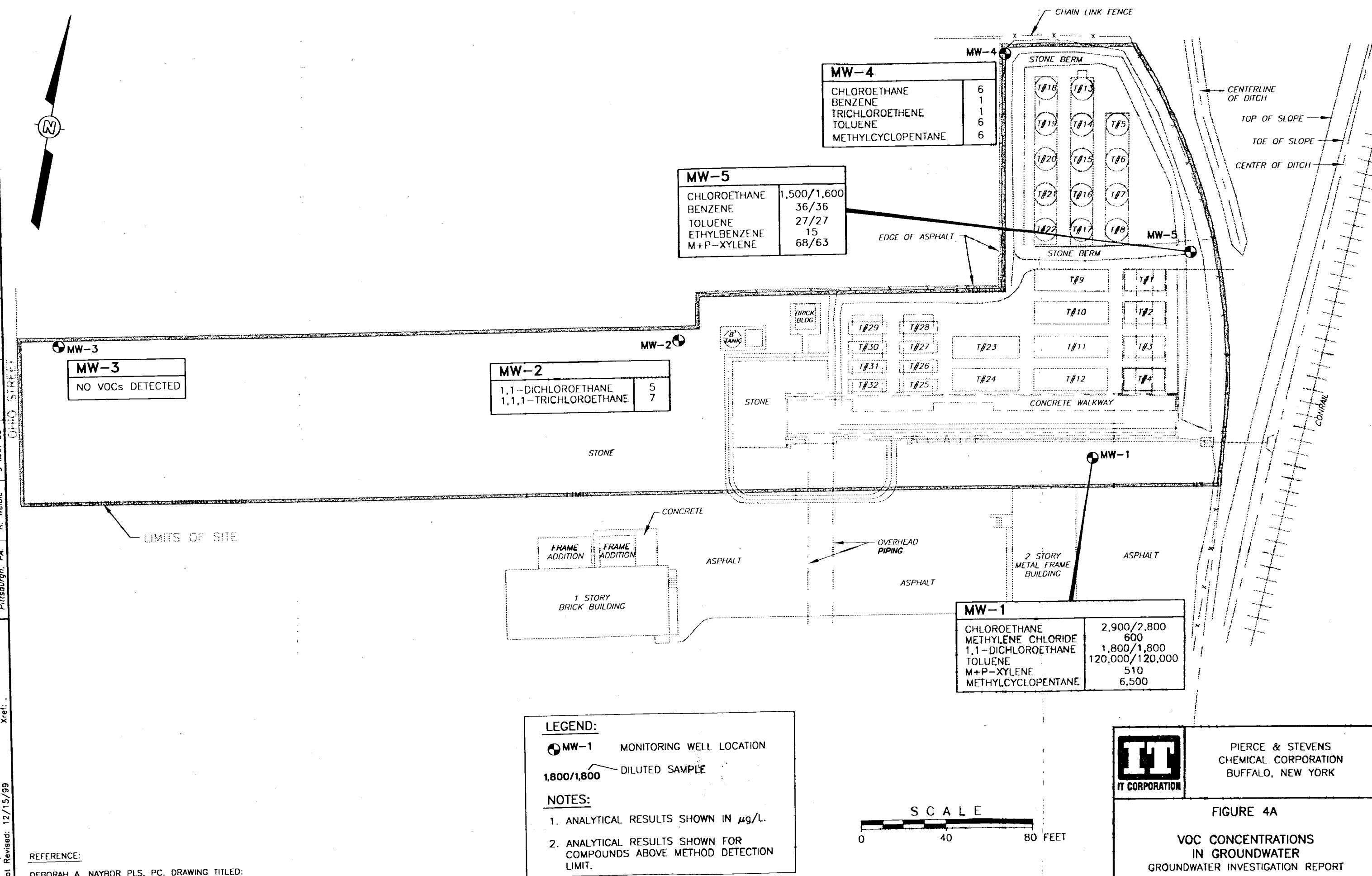
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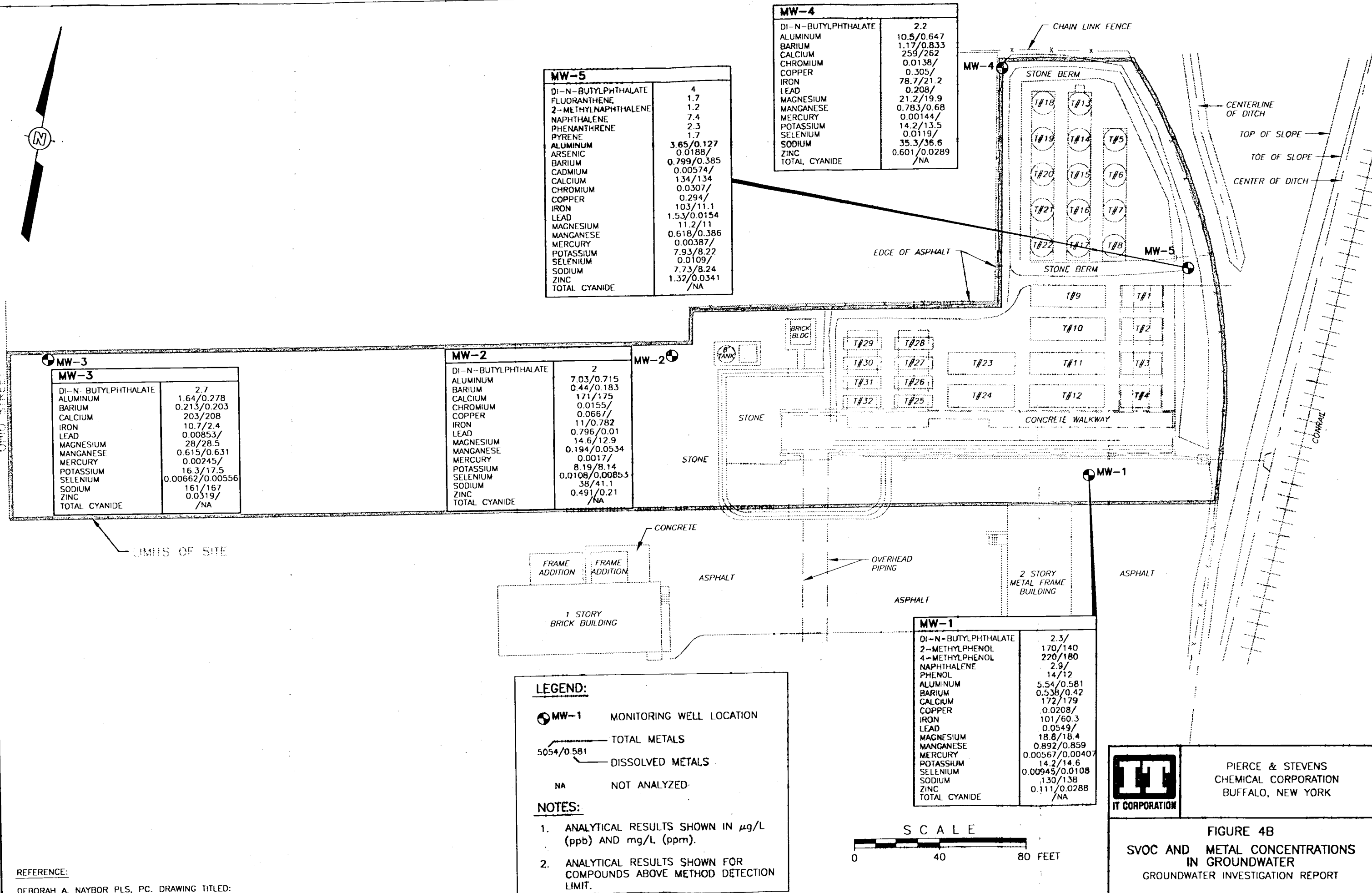
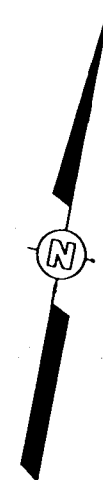
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TABLES

TABLE 1
OBSERVATION WELL GAUGING RESULTS
PIERCE STEVENS, INC.
BUFFALO, NEW YORK

Well ID	TOC Elevation (feet)	Date Gauged	DTW (feet)	DTP (feet)	Product Thickness (feet)	Product Specific Gravity	Corrected DTW (feet)	Corrected Water Elevation (feet)
MW-01	95.71	05/11/99	4.33	-	-	-	4.33	91.38
	95.71	05/11/99	4.27	-	-	-	4.27	91.44
	95.71	05/12/99	4.25	-	-	-	4.25	91.46
	95.71	05/13/99	4.27	-	-	-	4.27	91.44
	95.71	05/20/99	4.32	-	-	-	4.32	91.39
	95.71	05/26/99	4.30	-	-	-	4.30	91.41
	95.71	06/14/99	4.42	-	-	-	4.42	91.29
	95.71	06/26/99	4.59	-	-	-	4.59	91.12
MW-02	96.22	05/11/99	4.94	-	-	-	4.94	91.28
	96.22	05/12/99	4.93	-	-	-	4.93	91.29
	96.22	05/13/99	4.95	-	-	-	4.95	91.27
	96.22	05/20/99	5.03	-	-	-	5.03	91.19
	96.22	05/26/99	4.96	-	-	-	4.96	91.26
	96.22	06/14/99	5.10	-	-	-	5.10	91.12
	96.22	06/26/99	5.23	-	-	-	5.23	90.99
MW-03	95.36	05/11/99	4.27	-	-	-	4.27	91.09
	95.36	05/12/99	4.20	-	-	-	4.20	91.16
	95.36	05/13/99	4.29	-	-	-	4.29	91.07
	95.36	05/20/99	4.47	-	-	-	4.47	90.89
	95.36	05/26/99	4.46	-	-	-	4.46	90.90
	95.36	06/14/99	4.12	-	-	-	4.12	91.24
	95.36	06/26/99	4.71	-	-	-	4.71	90.65
MW-04	99.48	05/13/99	7.98	-	-	-	7.98	91.50
	99.48	05/20/99	8.09	-	-	-	8.09	91.39
	99.48	05/26/99	8.15	-	-	-	8.15	91.33
	99.48	06/14/99	8.32	-	-	-	8.32	91.16
	99.48	06/26/99	8.28	-	-	-	8.28	91.20
MW-05	100.20	05/11/99	8.80	-	-	-	8.80	91.40
	100.20	05/13/99	8.79	-	-	-	8.79	91.41
	100.20	05/20/99	8.90	-	-	-	8.90	91.30
	100.20	05/26/99	8.94	-	-	-	8.94	91.26
	100.20	06/14/99	9.14	-	-	-	9.14	91.06
	100.20	06/26/99	9.30	-	-	-	9.30	90.90

Notes: TOC Elevation = Elevation at the top of the PVC well casing.

DTW = Depth to water.

DTP = Depth to Non-Aqueous Phase Liquid (NAPL).

Product Thickness = NAPL thickness.

Product Specific Gravity = Estimated specific gravity of NAPL.

Corrected DTW = Depth to water corrected for NAPL/water density difference.

Corrected Water Elevation = Elevation of the water table using the corrected depth to water.

TABLE 2
VOLATILE ORGANIC COMPOUNDS (VOCs) IN SOIL SAMPLES
PIERCE STEVENS, INC.
BUFFALO, NEW YORK

Detected Volatile Analyte	Soil Sample Identification						Soil Cleanup Objectives to Protect Groundwater	Recommended Soil Cleanup Objectives
	MW-1 (2' - 4')	MW-2 (0 - 8')	MW-3 (0 - 10')	MW-4 (0 - 8')	MW-5 (6' - 8')	MW-5 Dup		
Acetone	5,200	6	37	18	210	110	110	200
Benzene					19	17	60	60
Chloroethane					570	390	1900	1900
1,1-Dichloroethane					46	37	200	200
Methylene Chloride					50	53	100	100
Tetrachloroethene		12		19			1400	1400
Toluene	130,000	14	5	140	600	440	1500	1500
M+P-Xylene					86	110	1200	1200
TOTAL VOLATILES	135,200	32	42	177	1,581	1,157		<10,000

Only analytes with concentrations above laboratory detection limits presented.

Results in µg/kg (ppb).

* New York State Dept. of Environmental Conservation, Div. of Hazardous Waste, Technical & Administrative Guidance Memo 4046, revised April 1995

Per TAGM 4046, Total VOCs <10 ppm, Total Semi-VOCs <500 ppm, and Individual Semi-VOCs <50 ppm.

TABLE 3
SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs) IN SOIL SAMPLES
PIERCE STEVENS, INC.
BUFFALO, NEW YORK

Detected Semivolatile Analyte	Soil Sample Identification						TAGM 4046*	
							Soil Cleanup Objectives to Protect Groundwater	Recommended Soil Cleanup Objectives
	MW-1 (2' - 4')	MW-2 (0 - 8')	MW-3 (0 - 10')	MW-4 (0 - 8')	MW-5 (6' - 8')	MW-5 Dup		
Acenaphthene	610		920	220			90,000	50,000
Acenaphthylene	120			61	95	120	41,000	41,000
Anthracene	680	120	2,400	700	160	150	700,000	50,000
Benzo(a)anthracene	780	520	5,700	1,800	710	830	224	224 or MDL
Benzo(a)pyrene	590	620	5,100	1,700	750	890	11,000	61 or MDL
Benzo(b)fluoranthrene	580	580	4,000	1,400	530	540	1,100	224 or MDL
Benzo(g,h,i)perylene	590	700	4,500	1,400	850	880	800,000	50,000
Benzo(k)fluoranthrene	490	540	3,700	1,300	390	580	1,100	224 or MDL
Butyl Benzylphthalate		60					122,000	50,000
Di-N-Butylphthalate	55	130		71	110	82	8,100	8,100
Carbazole	330	95	1,400	420				
Indeno(1,2,3-cd)pyrene	490	600	3,600	1,200	610	630	3,200	3,200
Chrysene	740	690	6,000	2,000	690	850	400	400
Dibenzo(a,h)anthracene	190				230	220	165,000,000	14 or MDL
Dibenzofuran	700		750	200			6,200	6,200
Bis(2-ethylhexyl)Phthalate	300	1,400	900	500	300	210	435,000	50,000
Fluoranthene	2,300	1,600	15,000	4,900	1,100	1,400	1,900,000	50,000
Fluorene	1,000	43	1,100	300			350,000	50,000
2-Methylnaphthalene	370			200			36,400	36,400
2-Methylphenol	1,200						100	100
4-Methylphenol	1,600						900	900
Naphthalene	420			150	85	92	13,000	13,000
Phenanthrene	3,900	710	12,000	3,300	360	350	220,000	220,000
Pyrene	1,600	910	10,000	2,900	1,100	1,300	665,000	50,000
TOTAL SVOCs	19,635	9,318	77,070	24,722	8,070	9,124	**	**

Results in µg/kg (ppb)

Blank cell(s) indicate compound at or below method detection limit.

* New York State Dept. of Environmental Conservation, Div. of Hazardous Waste, Technical & Administrative Guidance Memo 4046, revised April 1995

** Per TAGM 4046, Total VOCs <10 ppm, Total Semi-VOCs <500 ppm, and Individual Semi-VOCs <50 ppm.

TABLE 4
POLYCHLORINATED BIPHENYLS (PCBs) IN SOIL SAMPLES
PIERCE STEVENS, INC.
BUFFALO, NEW YORK

Detected Polychlorinated biphenyl Analyte	Soil Sample Identification						TAGM 4046*	
							Soil Cleanup Objectives to Protect Groundwater	Recommended Soil Cleanup Objectives
	MW-1 (2' - 4')	MW-2 (0 - 8')	MW-3 (0 - 10')	MW-4 (0 - 8')	MW-5 (6' - 8')	MW-5 Dup		
Aroclor-1016								
Aroclor-1221								
Aroclor-1232								
Aroclor-1242								
Aroclor-1248								
Aroclor-1254		98	41		990	780		
Aroclor-1260								
TOTAL PCBs	0	98	41	0	990	780	**	**

Results in µg/kg (ppb)

Blank cell(s) indicate compound at or below method detection limit.

* New York State Dept. of Environmental Conservation, Div. of Hazardous Waste, Technical & Administrative Guidance Memo 4046, revised April 1995

** Per TAGM 4046, Total VOCs <10 ppm, Total Semi-VOCs <500 ppm, and Individual Semi-VOCs <50 ppm.

TABLE 5
METALS IN SOIL SAMPLES
PIERCE STEVENS, INC.
BUFFALO, NEW YORK

Detected Metals Analyte	Soil Sample Identification						Eastern USA Background Value	TAGM 4046* Recommended Soil Cleanup Objectives
	MW-1 (2' - 4')	MW-2 (0 - 8')	MW-3 (0 - 10')	MW-4 (0 - 8')	MW-5 (6' - 8')	MW-5 Dup		
Aluminum	6,880	12,300	9,340	7,430	4,510	2,430	33,000	SB
Arsenic	18.8	12.4	5.36	14.8	12.4	19.8	3 - 12	7.5 or SB
Barium	699	376	103	207	149	127	15 - 600	300 or SB
Beryllium		1.80	1.09				0 - 1.75	0.16 or SB
Cadmium	4.77	1.44		2.10	2.26	1.41	0.1 - 1	1 or SB
Calcium	6,880	59,800	55,100	8,180	51,500	5,890	130 - 35,000	SB
Chromium	22.5	21.0	80.9	16.9	19.2	34.4	1.5 - 40	10 or SB
Cobalt	7.45			8.31		9.22	2.5 - 60	30 or SB
Copper	420	154	35	469	267	389	1 - 50	25 or SB
Iron	43,800	28,300	16,800	39,600	23,600	89,500	2,000 - 550,000	2,000 or SB
Lead	622	739	124	411	659	750	200 - 500**	SB**
Magnesium	1,190	10,300	7,750	2,890	29,100	512	100 - 5,000	SB
Manganese	226	1,360	3,080	259	282	432	50 - 5,000	SB
Mercury	3.13	0.577	0.35	36.0	0.98	1.02	0.001 - 0.2	0.1
Nickel	21.7	26.8	10.9	29.8	12.0	19.2	0.5 - 25	13 or SB
Potassium	804	812	718	932	565	290	8,500 - 43,000	SB
Selenium	1.57	1.17		1.69	9.95	12.70	0.1 - 3.9	2 or SB
Silver		2.07					N/A	SB
Sodium	490	644	793	269	381	232	6,000 - 8,000	SB
Vanadium	25.1	18.3	34.3	22.7	17.6	30.0	1 - 300	150 or SB
Zinc	2,350	1,130	90.8	991	1,670	809	9 - 50	20 or SB
Total Cyanide		0.862	2.66				N/A	***

Results in mg/kg (ppm)

SB - Site Background, N/A - Not Available

Only Detected Analytes presented. Blank cell(s) indicate compound at or below method detection limit or Eastern USA background value.

* New York State Dept. of Environmental Conservation, Div. of Hazardous Waste, Technical & Administrative Guidance Memo 4046, revised April 1995.

** Average background levels for lead in metropolitan areas or near highways typically range between 200 - 500 ppm.

*** Some forms of cyanide are complex and very stable while other forms are pH dependent and unstable. Site-specific forms of cyanide should be taken into account when establishing soil cleanup objectives.

TABLE 6
VOLATILE ORGANIC COMPOUNDS (VOCs) IN GROUNDWATER
PIERCE STEVENS, INC.
BUFFALO, NEW YORK

Detected Volatile Analyte	Groundwater Sample Identification							TOGS 1.1.1.* State Standards
	MW-1	MW-1DL	MW-2	MW-3	MW-04	MW-05	MW-5DL	
Chloroethane	2,900	2,800			6	1,500	1,600	50
Methylene Chloride	600							5
1,1-Dichloroethane	1,800	1,800	5					5
1,1,1-Trichloroethane			7					5
Benzene					1	36	36	0.7
Trichloroethene					1			5
Toluene	120,000	120,000			6	27	27	5
Ethylbenzene						15		5
M+P Xylene	510					68	63	5
Methylcyclopentane	6,500	6,200			6			
TOTAL VOLATILES	132,310	130,800	12	0	20	1,646	1,726	

DL = Diluted sample

Only analytes with concentrations above laboratory detection limits presented.

Results in µg/L

Blank cell(s) indicate compound at or below method detection limit.

* TOGS - NYS DEC Technical and Operational Guidance Series (1.1.1.), Ambient Water Quality Standards and Guidance Values, Oct 1993.

TABLE 7
SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs) IN GROUNDWATER
PIERCE STEVENS, INC.
BUFFALO, NEW YORK

Detected Semivolatile Analyte	Soil Sample Identification						TOGS 1.1.1.* State Standards
	MW-1	MW-1DL	MW-2	MW-3	MW-4	MW-5	
Di-N-Butyl Phthalate	2.3		2	2.7	2.2	4	50
Fluoranthene						1.7	50
2-Methylnaphthalene						1.2	50
2-Methylphenol	170	140					5
4-Methylphenol	220	180					50
Naphthalene	2.9					7.4	10
Phenanthrene						2.3	50
Phenol	14	12					1
Pyrene						1.7	50
TOTAL SVOCs	409.2	332	2	2.7	2.2	18.3	

Only analytes with concentrations above laboratory detection limits presented.

Results in µg/L

Blank cell(s) indicate compound at or below method detection limit.

* TOGS - NYS DEC Technical and Operational Guidance Series (1.1.1.), Ambient Water Quality Standards and Guidance Values, Oct 1993.

TABLE 8
METALS IN GROUNDWATER
PIERCE STEVENS, INC.
BUFFALO, NEW YORK

Detected Metals Analyte	Groundwater Sample Identification										TOGS 1.1.1.* State Standards
	MW-1T	MW-1D	MW-2T	MW-2D	MW-3T	MW-3D	MW-4T	MW-4D	MW-5T	MW-5D	
Aluminum	5.54	0.581	7.03	0.715	1.64	0.278	10.5	0.647	3.65	0.127	
Antimony											0.003
Arsenic									0.0188		0.025
Barium	0.538	0.42	0.44	0.183	0.213	0.203	1.17	0.833	0.799	0.385	1.0
Beryllium											0.003
Cadmium									0.00574		0.01
Calcium	172	179	171	175	203	208	259	262	134	134	
Chromium			0.0155				0.0138		0.0307		0.05
Cobalt											0.005
Copper	0.0208		0.0667				0.305		0.294		0.2
Iron	101	60.3	11	0.782	10.7	2.4	78.7	21.2	103	11.1	0.3
Lead	0.0549		0.796	0.01	0.00853		0.208		1.53	0.0154	0.025
Magnesium	18.8	18.4	14.6	12.9	28	28.5	21.2	19.9	11.2	11	35
Manganese	0.892	0.859	0.194	0.0534	0.615	0.631	0.783	0.68	0.618	0.386	0.3
Mercury	0.00567	0.00407	0.0017		0.00245		0.00144		0.00387		0.002
Nickel											
Potassium	14.2	14.6	8.19	8.14	16.3	17.5	14.2	13.5	7.93	8.22	
Selenium	0.00945	0.0108	0.0108	0.00853	0.00662	0.00556	0.0119		0.0109		0.01
Silver											0.05
Sodium	130	138	38	41.1	161	167	35.3	36.6	7.73	8.24	20
Thallium											0.004
Vanadium											
Zinc	0.111	0.0288	0.491	0.21	0.0319		0.601	0.0289	1.32	0.0341	0.3
Total Cyanide		NA		NA		NA		NA		NA	0.1

T = Total Metals, D = Dissolved Metals, NA = Not Analyzed

Results in mg/L (ppm)

Only Detected Analytes presented. Blank cell(s) indicate compound at or below method detection limit.

* TOGS - NYS DEC Technical and Operational Guidance Series (1.1.1.), Ambient Water Quality Standards and Guidance Values, 1993

APPENDIX A

FIELD SAMPLING AND QA PLAN

FIELD SAMPLING AND QA PLAN

Submitted by:

**IT CORPORATION
111 North Canal Street
Chicago, Illinois 60606**

Submitted to:

**SOVEREIGN SPECIALTY CHEMICALS
BUFFALO, NEW YORK**

APRIL 1999

Field Sampling and QA Plan

**Sovereign Specialty Chemicals
Buffalo, New York**

Objective

The following QA plan was prepared by IT Corporation on behalf of Sovereign Specialty Chemicals, Inc., Buffalo, New York. This QA plan is submitted along with the Groundwater Investigation Work Plan for approval by New York State Department of Environmental Conservation (NYSDEC) for the implementation of a groundwater investigation at the Buffalo facility. The area which is the subject of this investigation underlies an above-ground storage tank facility which is presently undergoing renovation. This QA plan was required by NYSDEC in order to obtain approval of the application of this site into the Voluntary Cleanup Program (VCP).

Groundwater Investigation

The purpose of the groundwater investigation is to:

- Obtain groundwater data which will identify any environmental impacts, if any, which may be associated with the AST farm;
- Evaluate potential sources of groundwater contamination entering the Buffalo site from upgradient sources;
- Determine the requirements for handling potentially contaminated groundwater in preparation for the remediation of soils underlying the tank farm area.

Monitoring Well Installation

Figure 1 illustrates the locations of the proposed monitoring wells. Four monitoring wells will be installed to evaluate groundwater conditions up gradient and down gradient of the tank farm area. A fifth monitoring well will be installed at the western border of the site (Ohio Street) to evaluate groundwater conditions in the presumed down gradient direction from the tank farm area. Groundwater samples will be collected from each monitoring well and analyzed for volatile organic compounds, semi-volatile organic compounds, pesticides/PCBs, total and dissolved metals, and total cyanide. Analytical methods and protocols are discussed in a future section.

The proposed monitoring well network was designed to evaluate groundwater conditions surrounding the AST farm. Piezometric and chemical data obtained from these wells will be used to evaluate what measures are required to address potentially contaminated groundwater encountered during the soil excavation in the AST farm area.

Drilling Procedures

Soil borings will be performed at the proposed locations using the hollow stem auger drilling technique. Continuous split-spoon samples will be taken in all soil borings in order to obtain a continuous record of the geologic conditions encountered. An IT geologist will record soil type, discoloration or staining, and whether the sample is saturated or unsaturated. All soils data will be recorded on a soil boring log during drilling. All soil samples will be screened using a photoionization detector (PID) or equivalent. The soil samples with the highest reading as detected with the PID will be sent to a laboratory for analysis. Analytical parameters for soil samples are discussed in a future section.

Soil borings immediately surrounding the AST farm will be drilled to the water table plus ten feet (approximate total depth of 20-feet bgs). Monitoring wells will be installed in each of the soil borings so as the well screen straddles the observed water table. The fifth soil boring will be advanced to a depth to confirm the presence of a clay aquitard underlying the site. The boring will not be advanced deeper than 5-feet into the underlying clay (maximum depth of 50-feet bgs). The boring will be backfilled with bentonite and a monitoring well will be installed at the water table as in the case of the first four wells.

Soil cuttings will be containerized in 55-gallon drums and temporarily staged on site. All drilling equipment will be decontaminated between soil borings to prevent cross contamination.

Well Construction

Monitoring wells will be constructed of 2-inch Schedule 40 PVC well materials, consisting of 10-feet of 10-slot well screen (or a shorter length as water table conditions dictate), and appropriate length of riser pipe. The annulus between the borehole wall and screen will be filled with a suitable sand filter pack to a level of 2-feet above the top of the well screen. The annulus will be sealed above the sand filter pack with a 2-foot bentonite-pellet seal. If sufficient vertical space remains above the bentonite-pellet seal, the annular space will be filled with a bentonite-cement grout; otherwise the remaining annular space will be sealed with a concrete-mix when the protective casing is installed. The protective casing will consist of a metal stand pipe, approximately 3-feet in length. A concrete apron will be constructed around the base of the pipe so that rain water will not collect around the casing. A keyed-lock will be used to secure the well. One set of keys will be stored at the Sovereign office on site.

As-built well construction forms will document well construction details. An example of an as-built form is attached.

All wells will be surveyed by a licensed land surveyor for location and elevation. Elevation will be relative to mean sea level, and will be measured relative to a known elevation benchmark, if available. If a known benchmark is unavailable, to a fixed, permanent structure on site. A potentiometric map of groundwater flow will be developed from this data and included in the report.

Well Development

Groundwater wells be mechanically developed 24-hours after completion of the well installations. The wells will be developed with the surge and bail method. A minimum of five casing volumes of water will be removed from each well if possible, subject to the hydraulic conductivity of the aquifer. Groundwater extracted during well development will be monitored for stabilization of pH, specific conductance, temperature and turbidity. This data will be used as indirect indicators of adequate well development, however turbidity may not stabilize if the aquifer contains a naturally high clay/silt content. Well development data will be summarized on the as-built forms described previously.

Sampling and Analysis Plan

The following section describes the procedures to be used in the field for the groundwater investigation. This section summarizes sample collection procedures, sample handling, and sample documentation/numbering.

Sample Collection Procedures Groundwater Sampling

Groundwater samples will be collected from all five monitoring wells installed in this investigation. Prior to sampling, all monitoring wells will be gauged for piezometric data, and purged a minimum of three well volumes, or as limited by well performance. Every care will be taken to prevent dewatering the sand filter pack surrounding the well screen, which could significantly affect the quality of the groundwater sample. In the event a monitoring well is very slow to recharge, it may be necessary to limit purging of the well to an amount less than 3 well volumes to prevent this from occurring.

Groundwater samples will be collected using pre-cleaned sample containers and appropriate preservatives to be provided by the off-site analytical laboratory.

Vials containing samples for volatile organic compound (VOC) analysis will be filled directly from the well bailer using the sampling-spout of the bailer. VOC vials will be completely filled with groundwater, leaving no headspace in the vial after capping. Every VOC vial will be checked for trapped bubbles as part of field quality assurance protocols. Groundwater samples with trapped gas bubbles will be rejected and a new groundwater sample will be collected.

Groundwater samples collected for dissolved metals analysis will be filtered in the field.

Dedicated PVC well bailers will be used for groundwater sampling.

Field QC Samples

Three types of QC samples will be collected and analyzed for liquids sampled during this project:

- Duplicates, and;
- Trip Blanks

As described previously, dedicated bailers will be used , therefore field blanks (which are used to evaluate the effectiveness of decontamination procedures) will not be necessary.

Duplicates

One duplicate will be collected for each sampling event. Additionally, one matrix spike, one matrix spike duplicate and one matrix spike blank will be collected. Sampling procedures for each of the samples will be identical to those used to collect the monitoring samples.

Trip Blanks

Trip blanks will consist of pre-sealed vials of documented VOC free water forwarded directly by the laboratory. The vials will remain sealed during all sampling events. The vials will be stored and transported in the coolers containing the monitoring VOC samples. One set of trip blanks will be shipped with each daily shipment of analytical samples and will be used to evaluate potential outside sources of volatile organic contamination which may affect the accuracy of the analytical data.

Sample Handling

Groundwater samples will be stored in coolers with ice until transferred to the analytical laboratory. Samples will be dropped off daily to the analytical laboratory. Coolers will be isolated from potential outside sources of organic compounds, such as car exhausts.

Sample Documentation/Numbering

All samples will be documented using IT Corporation chain-of-custody (COC) records. Each discrete soil and/or groundwater sample will be entered on a separate line of the COC. The COC will remain with the samples until custody of the samples is transferred to the analytical laboratory. Transfer of the custody will be documented by date, time of the transfer, and the signature of the person transferring the samples.

All samples, whether soil or groundwater, will be identified initially using the symbol "MW" for monitoring wells, then followed by the appropriate well number, i.e., MW-1, MW-2, etc. Groundwater samples will be identified on the analytical laboratory sheets as simply MW-1, MW-2; the sheet will identify the samples as aqueous. Soil samples will

be identified by the discrete interval from which the soil sample originated, ex. "MW-1, 5'-10'", "MW-2, 8'-10'", and so on.

Field Records

Field observations and other information pertinent to the collection of samples will be recorded in the field. All entries will be made in a field notebook or on field sampling sheets. The data to be recorded in the field. All entries will be made in a field notebook or on field sampling description, and the person collecting the sample. Photographs will be taken and logged to document sampling activities.

Analytical Program

All samples collected in this investigation will be analyzed in accordance with the methods specified in the NYSDEC Analytical Services Protocol (ASP) dated December, 1991. Analytical parameters are summarized in Table 1.

TABLE 1
Summary of Soil and Groundwater Analytical Parameters

Soil Samples

Parameter	Method¹	Number of Samples	QA/QC Samples²
TCL VOCs	ASP-1	5	3
TCL SVOCs	ASP-2	5	2
TCL Pest./PCBs	ASP-3	5	2
TAL Metals	CLP-M	5	2
Total Cyanide	CLP-M	5	2

Groundwater Samples

Parameter	Method¹	Number of Samples	QA/QC Samples²
TCL VOCs	ASP-1	5	3
TCL SVOCs	ASP-2	5	2
TCL Pest./PCBs	ASP-3	5	2
TAL Metals (Total)	CLP-M	5	2
TAL Metals (Dissolved) ³	CLP-M	5	2
Total Cyanide	CLP-M	5	2

¹ All methods reference NYSDEC ASP / 95 NYSDEC CLP

² MS/MSD samples will be collected for all parameters. Trip blanks will be submitted for VOC samples.

³ Dissolved metals samples will be field filtered.

Data Quality Assurance Plan

This data quality assurance plan focuses on the QA/QC to be performed as part of the proposed environmental monitoring program.

Quality Assurance Objectives for Measurement Data

The overall QA objective is to develop and implement procedures for field sampling, chain-of-custody, laboratory analysis and reporting that will provide defensible and reproducible results. This section defines the goals for the level of QA effort, accuracy, precision and sensitivity of analyses and completeness, representativeness, and comparability of measurement data. QA objectives for field measurements are also discussed as well as chain-of-custody, calibration, laboratory analysis, reporting internal quality control and corrective actions.

Water samples will be analyzed for TCL VOCs and total and dissolved cadmium, chromium and lead. The level of laboratory QA effort for TCL analyses of water and sediment samples will be consistent with NYSDEC ASP, December 1991.

Accuracy, Precision, and Sensitivity of Analyses

Accuracy, precision and sensitivity (detection limit) criteria for analytical services for organics will be consistent with the corresponding with the NYSDEC ASP dated December, 1991. In addition, the analytical laboratory used will have a current New York state Department of health Environmental Laboratory Approval Program (DOHELAP) certification in all categories of CLP and Solid and hazardous Waste.

Completeness, Representativeness, and Comparability

The analytical laboratory will provide analytical results with the completeness required in the NYSDEC ASP dated December, 1991. The sampling network was designed to provide data representative of site conditions for the intended objectives of the project as defined in this Work Plan.

Field Measurements

Measurement data will be generated during field activities that are incidental to collecting samples for analytical testing or unrelated to sampling. These activities include, but are not limited to determining pH, specific conductance and temperature of water samples.

The general QA objective for field measurement data is to obtain reproducible and comparable measurements to a degree of accuracy consistent with the intended use of data through standardized procedures.

Chain-of-Custody Procedures

Chain-of-custody procedures document the history of sample containers and samples from the time of preparation of sample containers through sample collection, shipment, and analysis. A sample is considered in custody if:

- The sample is in the sampler's physical possession;
- The sample is secured by the sampler to prevent tampering; or
- The sample is secured by the sampler in an area that is restricted to authorized personnel.

To maintain a record of sample collection, transfer between personnel, shipment, and receipt by the laboratory, a chain-of-custody record will be completed for each sample at each sampling location. Each time the samples are transferred, signatures of the person relinquishing and receiving the samples, as well as the date and time, will be documented.

Decontamination Program

All sampling equipment will be decontaminated prior to each use by the following protocol:

- Scrub equipment thoroughly in a low-sudsing detergent solution (e.g. Alconx);
- Rinse with distilled water; and
- Wrap equipment in plastic or aluminum foil for handling and /or storage until next use.

All drilling and borehole sampling equipment will be steam cleaned before beginning work, between borings and prior to leaving the site.

Calibration Procedures and Frequency

The calibration procedures and frequency of calibration for analysis of specified TCL parameters to be followed are specified in the NYSDEC ASP dated December, 1991.

Calibration of the field pH meter will be checked prior to the collection of each water sample. The field pH meter will be calibrated using two reference solutions as appropriate to the pH of the sample. The calibration of the specific conductance/temperature meter will be checked using a reference solution of 0.01 N KCl (specific conductance, μ 1413 mhos/cm at 25°C) on a daily basis. Calibration readings must be within 5 percent to be acceptable.

Quality Control Samples

Field duplicates and trip blanks are in the quality control program. Field duplicate samples are analyzed to check for sampling and analytical reproductivity. Trip blanks are analyzed to evaluate potential outside sources of VOC contamination during sample collection, and shipment.

Data Assessment Procedures

Analytical data from the laboratory will be assessed for accuracy, precision, and conformance with QC criteria by the Laboratory Section Supervisors with overview by the Quality Assurance Manager in accordance with the NYSDEC ASP dated December, 1991.

Data from the field measurements will be assessed by thorough review of documentation of analytical procedures that were adhered to, and results of systems audits. All data will be reviewed for completeness by the oversight project manager as appropriate to his operational responsibilities.

Corrective Action Procedures

If a quality control audit results in detection of unacceptable conditions or data, the oversight project manager will be responsible for developing and initiating corrective actions. The laboratory will be notified if the nonconformance is of program significance. Corrective action may include:

- Reanalyzing the samples, if holding time criteria permit;
- Resampling and analyzing;
- Evaluating and amending sampling and analytical procedures; and
- Accepting the data and acknowledging its level of uncertainty.

Quality Assurance Reports

No separate QA report is planned for the environmental monitoring program. The quarterly reports will contain a separate QA/QC section summarizing the quality of the data collected and/or used as appropriate to the project.

APPENDIX B
SOIL BORING LOGS



IT CORPORATION

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Drilling Log

Monitoring Well

Project GROUNDWATER INVESTIGATION Owner SOVEREIGN SPECIALTY CHEMICALSLocation 710 OHIO ST. BUFFALO Project No. 765912 Date drilled 5/10/99Surface Elev. _____ Total Hole Depth ~14.5' Diameter ~7"Top of Casing _____ Water Level Initial _____ Static 4.33' BTOC (2")Screen: Dia 2" Length 7.5' Type/Size 20 SLOT SCH 40 PvcCasing: Dia 2" Length _____ Type SCH 40 PVCFilter Pack Material 20/5 SAND Rig/Core Type CME 75Drilling Company MAXIM Method 4 1/4" HSA's w/ 2" SSP's Permit # _____Driller PHIL BANCE Log By KEVIN CROWIN

Checked By _____ License No. _____

See Site Map
For Boring Location MW-1

COMMENTS:

~15.1' NE OF NE
CORNER OF BLDG. 29

Depth (ft.)	Well Completion	PID (ppm)	Sample ID Blow Count/ x Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%.
-2						
0						ASPHALT
CONCRETE						
2		140	S-1 8-3 6-4	REC 1.7'		DRY, LOOSE, BLACK, BROWN, CINDERS, WOOD, ASH CEMENTIC PIECES, BECOMING WET BELOW ~3.5'; (NOTE: SOLVENT ODOR IN 2'-4" SAMPLE.) (FILL) w/ SAND, GRAVEL, SILT, SLAG.
3.5		>250	S-2 2-3 2-2	REC 1.3'		
4		80	S-3 2-2 2-2	REC 1.0'		WET (FILL) AS ABOVE
6		170	S-4 2-2 4-5	REC 1.5'		0.3' (FILL) OVER MOIST, FIRM GRAY w/ RUST MOTTLING SiC-Csi, NO ODOR, OUTSIDE STAINING FROM ABOVE
8		14	S-5 2-3 2-2	REC 1.9'		SiC-Csi AA, NO STAIN OR ODOR
10		1.0	S-6 2-2 4-4	REC 2.0'		AS ABOVE
11		0.4	S-7 2-4 4-3	REC 2.0'		4" SiC-Csi AS ABOVE, MOIST, FIRM GRADES TO LOOSE, BROWNISH GRAY, MOIST TO WET SSI - SiS w/ SOME CLAY. NO STAIN OR ODOR
12						
14						ENDS BORING @ ~14.5' PGL
16						
18						
20						
22						
24						



Drilling Log

Monitoring Well

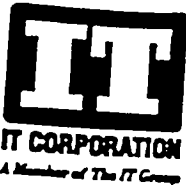
Project GROUNDWATER INVESTIGATION Owner SOVEREIGN SPECIALTY CHEMICALS
 Location 710 OHIO ST. BUFFALO Project No. 766912 Date drilled 5/11/99
 Surface Elev. _____ Total Hole Depth _____ Diameter _____
 Top of Casing _____ Water Level Initial _____ Static _____
 Screen: Dia 2" Length 7.5' Type/Size 0.020" SLOT SCH. 40 PVC
 Casing: Dia 2" Length _____ Type SCH 40 PVC
 Filter Pack Material 20/30 SAND Rig/Core Type CME 75
 Drilling Company MAXIM Method 4 1/4" HSA w/ 2" SSP Permit # _____
 Driller PHIL BENCE Log By KEVIN GROWIN
 Checked By _____ License No. _____

See Site Map
For Boring Location MWJ-2

COMMENTS:

COLLECT SOIL SAMPLE
(COMPOSITE FILL) FROM
0' - 8'

Depth (ft.)	Well Completion	PID (ppm)	Sample ID Blow Count/ % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%.
-2						
0						GRAVEL / SOIL
0	CONCRETE BOTTLE	0.4	S-1 13-6 4-4	S-1 REC. 1.1'		DRY, LOOSE, SAND, GRAVEL, SILT, ASH (FILL) NO ODOR NOTED
2		0.2	S-2 2-1 1-3	REC. 1.0'		AS ABOVE BECOMING MOIST TOWARDS BOTTOM.
4		0.2	S-3 4-1 1-2	REC. 0.1'		POOR RECOVERY - WET LOOSE COARSE SLAG AND FINE GRAVEL (NO ODOR NOTED (FILL)
6		ND	S-4 4-3 3-1	REC. 0.8'		SATURATED, LOOSE GRAVEL, SAND, CERAMIC CHIPS, SLAG (FILL) - 2" OVER MOST OLIVE BROWN FIRM SIC-CSI w/ RUST MOTTLING. NO STAIN OR ODOR
8		ND	S-5 4-5 5-9	REC. 1.5'		GRAY TO OLIVE BROWN, MOIST FIRM TO STIFF SIC- CSI w/ RUST MOTTLING NO STAIN OR ODOR
10		NT	S-6 5-6 7-7	REC. 0.1'		COARSE GRAVEL IN SHADE - VERY POOR RECOVERY. HAD LITTLE TALLOW CSI-SIC w/ GRAY MOTTLING NO STAIN OR ODOR
12						
14						
16						
18						
20						
22						
24						



Drilling Log

Monitoring Well

Project GROUNDWATER INVESTIGATION Owner SOVEREIGN SPECIALTY CHEMICALS
Location 710 OHIO ST. BUFFALO Project No. 768912 Date drilled 5/11/99

See Site Map
For Boring Location (MW) - 3

Surface Elev. _____ Total Hole Depth _____ Diameter _____
Top of Casing _____ Water Level Initial _____ Static _____
Screen: Dia 2" Length 7.5' Type/Size 0.020" SLOT SCH 40 PVC
Casing: Dia 2" Length _____ Type SCH 40 PVC
Filter Pack Material 20/5 Type CME 75
Drilling Company MAXIM Rig/Core Type _____
Driller PHIL BONDE Method 9/4" HSA w/ 2" SSP Permit # _____
Checked By _____ Log By KEVIN CROWIN

COMMENTS: WELL IS ~
66' WEST OF CHAIN LINK FENCE
30.5' EAST OF EDGE OF
OHIO ST. ~ 4' SOUTH OF
ASSUMED PROPERTY LINE.
COLLECTED COMPOSITE
FILL SAMPLE FROM 0-10'

Depth (ft.)	Well Completion	PID (ppm)	Sample ID Blow Count/ % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure)
-2						Trace < 10%. Little 10% to 20%, Some 20% to 35%, And 35% to 50%
0						ASPHALT PARKING LOT
2		ND	5-1 34-6 6-5	REC. 1.2		DRY, HARD OLD ASPHALT OVER DRY TO DAMP COMPACT BROWN TO BLACK SAND, GRAVEL, SILT, SLAG (FILL) NO STAIN OR ODOR
4		ND	5-2 5-3 3-2	REC. 0.3		POOR RECOVERY - SLAG IN SHALE (FILL) AS ABOVE w/ BLACK FRAGMENTS. NO STAIN OR ODOR
6		ND	5-3 6-3 2-2	REC. 0.4		POOR RECOVERY, WET, LOOSE, DK GRAY GRAVEL, SAND, SILT, SLAG (FILL) NO STAIN OR ODOR
8		ND	5-4 2-4 3-3	REC. 0.6		SATURATED, LOOSE DK GRAY, SAND, GRAVEL, SILT (FILL) NO STAIN OR ODOR.
10		ND	5-5 3-6 10-11	REC. 1.8		3" OF FILL, WET AS ABOVE, OVER MOIST, STIFF BROWNISH GRAY MOTTLED SIC-CSI. NO STAIN OR ODOR
12		ND	5-6 1-3 3-4	REC. 1.7		4" OF SIC-CSI AS ABOVE GRADES TO MOIST TO WET, SOFT SIC w/ LITTLE TO SOME SAND, BROWNISH GRAY.
14						
16						
18						
20						
22						
24						

END. BORING @ ~12' BGL, PLUG HOLE BACK
TO 10' w/ BENTONITE



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Drilling Log

Monitoring Well

Project GROUNDWATER INVESTIGATION Owner SOVEREIGN SPECIALTY CHEMICALS

Location 710 OHIO ST. BUFFALO Project No. 766912 Date drilled 5/12/99

Surface Elev. _____ Total Hole Depth _____ Diameter ~7"

Top of Casing _____ Water Level Initial _____ Static _____

Screen: Dia 2" Length 7.5' Type/Size 0.020" SLOT SCH 40 PVC

Casing: Dia 2" Length _____ Type SCH 40 PVC

Filter Pack Material 2095 SAND Rig/Core Type CME 75

Drilling Company MAXIM Method 4 1/4" HSAs w/ 2" SSP Permit # _____

Driller PHIL BACCL Log By KEVIN CROWIN

Checked By _____ License No. _____

See Site Map

For Boring Location MW-4

COMMENTS:

COMPOSITE FILL
SAMPLE FROM 0-6'
FOR ANALYSIS

Depth (ft.)	Well Completion	PID (ppm)	Sample ID Blow Count/ % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%.
-2						
0						NORTHWEST CORNER OF AST BARN BY NORTH FENCE
0						4' OF BROWN SIC TOP SOIL OVER DAMP, LOOSE, FINE TO 1
2		ND	5-1 1-2 3-4	REC 0.9'		SAND, GRAVEL, SILT (FILL), ASH, BRICK FRAGS. NO ODOR
4		ND	5-2 6-7 3-2	REC 1.0'		MOIST, LOOSE, BROWN TO BLACK FILL AS ABOVE
6		ND	5-3 4-4 6-7	REC 1.0'		FILL AS ABOVE, BECOMING WET, NO ODOR
8		ND	5-4 5-10 8-4	REC 1.2'		WET, COMPACT (FILL) AS ABOVE NO ODOR
10		ND	5-5 4-3 4-6	REC 1.8'		~ 3" FILL AS ABOVE OVER FIRM BROWNISH GRAY, MOIST SIC-CSI w/ RUST MOTTLING, NO ODOR
12		ND	5-6 4-7 8-7	REC 2.0'		MOIST, STIFF GRAYISH BRN SIC-CSI w/ RUST MOTTLING
14						END BORING @ ~12' BGL, PLUG BACK w/ BENTONITE TO ~10'.
16						
18						
20						
22						
24						



Drilling Log

Monitoring Well

Project GROUNDWATER INVESTIGATION Owner SOVEREIGN SPECIALTY CHEMICALS
 Location 710 OHIO ST. BUFFALO Project No. 766912 Date drilled 5/11/99
 Surface Elev. _____ Total Hole Depth 14 Diameter _____
 Top of Casing _____ Water Level Initial _____ Static _____
 Screen: Dia 2" Length 7.5' Type/Size 0.020" SLOT PVC
 Casing: Dia 2" Length 4.5 Type SCH 40 PVC
 Filter Pack Material 20/45 SAND Rig/Core Type CME 75
 Drilling Company MAXIM Method 1/4" HSA's w/ 2" SSP Permit # _____
 Driller _____ Log By KEVIN CROWIN
 Checked By _____ License No. _____

See Site Map
For Boring Location MW- 5

COMMENTS:

COLLECTED SOIL
SAMPLE FROM 6'-
8'

Depth (ft.)	Well Completion	PID (ppm)	Sample ID Blow Count/ X Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%.
-2						
0						EASTERN AST TANK BERA
0	Concrete Bentonite	ND	5-1 10-9	REC 1.1'		DRY TO MOIST COMPACT BLACK TO BROWN SAND GRAVEL, SILT, SLAG, CERAMIC CHIPS (FILL) TRACE ROOTS, NO ODOR
2		ND	5-1 4-3	REC 0.2		POOR RECOVERY, MOIST, STIFF BROWN SIC W/ SOME FINE GRAVEL, LITTLE SAND (FILL), NO ODOR
4		12	5-3 5-3	REC 1.2'		MOIST, LOOSE, BLACK, BROWN SI, SAND, GRAVEL COAL, ASH, WHITISH GRAY, SILT/CLAY (FILL), NO ODOR
6		22	5-4 2-3	REC 0.8'		MOIST, BECOMING WET, LOOSE BLACK SILT, CLAY GRAVEL, SAND, SLAG (FILL) NO ODOR
8		2.0	5-5 3-2 3-4	REC 1.2'		4" WET FILL AS ABOVE OVER GRAY FIRM MOIST, SIC- CSI NO ODOR (NATIVE)
10		1.0	5-6 1-2 4-5	REC 1.6'		MOIST, SOFT, GRAY W/ RUST MOTTLING SIC-CSI NO STAIN OR ODOR
12		0.8	5-7 5-7 7-6	REC 2.0'		AS ABOVE
14						
16						END BORING @ ~14' BGL (HSA's ADVANCED TO ~10') PLUG BACK TO 10' W/ BENTONITE
18						
20						
22						
24						

APPENDIX C

LABORATORY ANALYTICAL DATA

SOIL ANALYTICAL DATA



A FULL SERVICE ENVIRONMENTAL LABORATORY

June 18, 1999

Mr. Tim Bryan
IT Corporation
300 West Washington
Suite 900
Chicago, IL 60606

PROJECT: PIERCE & STEVENS, INC
Submission #: 9905000159

Dear Mr. Bryan:

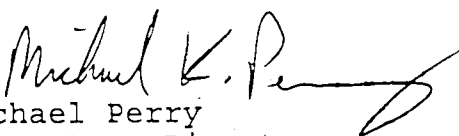
Enclosed are the analytical results of the analyses requested. The analytical data was provided to you on 05/24/99 per a Facsimile transmittal. All data has been reviewed prior to report submission.

Should you have any questions please contact me at (716) 288-5380.

Thank you for letting us provide this service.

Sincerely,

COLUMBIA ANALYTICAL SERVICES


Michael Perry
Laboratory Director

Enc.

This package has been reviewed by Columbia Analytical Services' QA Department/Laboratory Director prior to report submittal. *map 6/18/99*

CASE NARRATIVE

COMPANY: IT Corporation
PROJECT: Pierce & Stevens
SUBMISSION #: 9905000159

Samples were collected on 05/11/99 and received at CAS on 05/11/99 and 05/12/99 in good condition at a cooler temperatures of 5.2 and 4.0 °C. See CAS CLP Batching sheets for a cross reference between Client ID and CAS Job # and analyses requested. An ASP-A package has been supplied as requested.

VOLATILE ORGANIC ANALYSIS

Five soil samples were analyzed for Target Compound List (TCL) volatile organics by Method 95-1 from the NYS DEC 1995 ASP.

All Tuning criteria for BFB were within limits.

The initial and continuing calibration criteria were met for all analytes except for 1,1-Dichloroethene from the calibration curve on 5/21/99 due to the 200 ug/l standard being high. No 1,1-Dichloroethene was detected in the samples analyzed therefore no data was affected.

All internal standard areas were within QC limits except IS3 for MW-4(0'-8). This analysis was repeated and the IS area was confirmed.

All surrogate compounds were within QC limits for recovery except 1,2-Dichloroethane-d4 on MW-1, MW-1MS and MW-1MSD.

Matrix Spike/Matrix Spike Duplicate recoveries for low level soil sample MW-5(6-8') and medium level soil sample MW-1 and the Blank Spike recoveries were all acceptable except for TCE in the MS/MSD from the medium level and Toluene in the MS/MSD from the low level. These were due to the level of the target analyte detected in the samples.

All Laboratory Blanks were free from contamination.

Library Searches against the NBS/EPA library were conducted on all samples, reanalyzes, and blanks. The 30 largest peaks within 10 % of the nearest Internal Standard were searched. A summary of detected peaks is included following the Target data. Any analyte detected was quantitated based on the closest internal standard and has been reported flagged with a "J" as estimated.

Sample MW-1 was originally analyzed as a medium level dilution due to the level of target analytes and was reanalyzed at a larger dilution to bring target analytes within the calibration range of the method. Both dilutions were reported and any target analyte over the calibration range was flagged with an "E".

No other analytical or QC problems were encountered during the analysis of this SDG.

0001

SEMIVOLATILE ORGANICS

Five soil samples were analyzed for TCL Semivolatiles by NYSDEC ASP method 95-2.

All DFTPP tuning criteria were within acceptance limits.

The initial calibration criteria were met for all analytes.

The continuing calibration criteria were met for all analytes.

The surrogate standard recoveries were within QC limits.

All internal standard areas were within QC limits.

Matrix Spike/Matrix Spike Duplicate recoveries sample MW-5(6'-8) and the Blank Spike recoveries were all acceptable.

Library Searches against the NBS/EPA library were conducted on all samples, reanalyzes, and blanks for 95-2 analysis. The 30 largest peaks within 10 % of the nearest Internal Standard were searched. A summary of detected peaks is included following the Target data. Any analyte detected was quantitated based on the closest internal standard and has been reported flagged with a "J" as estimated. The Aliphatic Alkane Hydrocarbon peaks detected were excluded from being put on the TIC summary form I but were included with the raw data.

Sample MW-3 was analyzed at a 1/10 dilution due to the level of target and non-target analytes detected.

No other analytical or QC problems were encountered.

PESTICIDE/PCB ANALYSIS

Five soil samples were analyzed for TCL Pesticides and PCBs by NYSDEC Method 95-3. The analysis was performed on one instrument with one injection splitting into a dual column, dual electron capture detector system. The analysis was conducted concurrently on RTx-CLP and RTx-CLP2 capillary columns.

The initial and continuing calibration criteria were met for all analytes.

All surrogate recoveries were within QC limits on samples except DCB on column 2 for several samples. This was due to matrix interferences and the recoveries have been flagged with a "***".

The Matrix Spike/Matrix Spike Duplicate recoveries for sample MW-5(6'-8) were all within QC limits. The Blank Spike recoveries were all acceptable except Endrin in both due to breakdown. These recoveries were flagged with an "***".

Samples MW-5 and MW-5DUP were reanalyzed at 1/10 dilutions to bring target analytes within the calibration range of the method. Both dilutions were reported and any target analyte over the calibration range was flagged with an "E".

No other problems occurred during this analysis.

0002

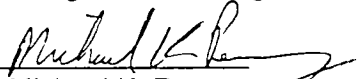
METALS ANALYSIS

Five soil samples were analyzed for Total TAL Metals and Total Cyanide using NYSDEC 1995 ASP protocol. Mercury was analyzed by cold vapor methodology and all other metals were analyzed by ICP.

The Blank Spike recoveries (LCS) were all acceptable. Several metals results were flagged with a "N" indicating the matrix spike recovery done on sample MW-5 were outside of QC limits. Several metals results were flagged with an "*" indicating the % RPD done on sample MW-5 were outside of QC limits. Several metals results were flagged with an "E" indicating the serial dilution done on sample MW-5 was outside of QC limits.

No other analytical problems were encountered.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.


Michael K. Perry
Laboratory Manager

6/18/99
Date

[illegible]

NCF1

0004

[illegible]

ORGANIC ANALYSES

[illegible]

B/N-A
ANALYSES

NCF4

ORGANIC ANALYSES

[illegible]

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SAMPLE PREPARATION AND ANALYSIS SUMMARY
PESTICIDE/PCB
ANALYSES

[illegible]

ORGANIC ANALYSES

[illegible]

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[illegible]

009789

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1DL

Lab Name: CASIROC

Contract: IT GROUP

Lab Code: 10145

Case No.: 99-5-159

SAS No.: _____

SDG No.: MW-1

Matrix: (soil/water) SOIL

Lab Sample ID: 291631 500

Sample wt/vol: 4.0 (g/ml) G

Lab File ID: Y2124.D

Level: (low/med) MED

Date Received: 05/11/99

% Moisture: not dec. 31

Date Analyzed: 05/21/99

GC Column: DB624 ID: 0.32 (mm)

Dilution Factor: 4.0

Soil Extract Volume: 10000 (uL)

Soil Aliquot Volume: 100 (uL)

CONCENTRATION UNITS:

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

74-87-3	Chloromethane	7200	U
75-01-4	Vinyl chloride	7200	U
75-00-3	Chloroethane	7200	U
74-83-9	Bromomethane	7200	U
67-64-1	Acetone	5200	JD
75-35-4	1,1-Dichloroethene	7200	U
75-09-2	Methylene chloride	7200	U
75-15-0	Carbon disulfide	7200	U
75-34-3	1,1-Dichloroethane	7200	U
78-93-3	2-Butanone	7200	U
540-59-0	1,2-Dichloroethene (total)	7200	U
67-66-3	Chloroform	7200	U
107-06-2	1,2-Dichloroethane	7200	U
71-55-6	1,1,1-Trichloroethane	7200	U
56-23-5	Carbon tetrachloride	7200	U
71-43-2	Benzene	7200	U
79-01-6	Trichloroethene	7200	U
78-87-5	1,2-Dichloropropane	7200	U
75-27-4	Bromodichloromethane	7200	U
10061-01-5	cis-1,3-Dichloropropene	7200	U
10061-02-6	trans-1,3-Dichloropropene	7200	U
79-00-5	1,1,2-Trichloroethane	7200	U
124-48-1	Dibromochloromethane	7200	U
75-25-2	Bromoform	7200	U
108-10-1	4-Methyl-2-pentanone	7200	U
108-88-3	Toluene	130000	D
591-78-6	2-Hexanone	7200	U
127-18-4	Tetrachloroethene	7200	U
108-90-7	Chlorobenzene	7200	U
100-41-4	Ethylbenzene	7200	U
1330-20-7	o-Xylene	7200	U
100-42-5	Styrene	7200	U
108-88-3	1,1,2,2-Tetrachloroethane	7200	U
108383& 106423	(m+p) Xylene	7200	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-1DL

Lab Name: CAS\ROC Contract: IT GROUP
Lab Code: 10145 Case No.: 99-5-159 SAS No.: SDG No.: MW-1
Matrix: (soil/water) SOIL Lab Sample ID: 291631 500
Sample wt/vol: 4.0 (g/ml) G Lab File ID: Y2124.D
Level: (low/med) MED Date Received: 05/11/99
% Moisture: not dec. 31 Date Analyzed: 05/21/99
GC Column: DB624 ID: 0.32 (mm) Dilution Factor: 4.0
Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

CONCENTRATION UNITS:

Number TICs found: 2 (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	RT	EST. CONC.	Q
1.	unknown hydrocarbon	5.42	18000	JD
2.	unknown hydrocarbon	6.16	6400	JD

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1

Lab Name: CASIROC

Contract: IT GROUP

Lab Code: 10145

Case No.: 99-5-159

SAS No.:

SDG No.: MW-1

Matrix: (soil/water) SOIL

Lab Sample ID: 291631 125

Sample wt/vol: 4.0 (g/ml) G

Lab File ID: Y2081.D

Level: (low/med) MED

Date Received: 05/11/99

% Moisture: not dec. 31

Date Analyzed: 05/18/99

GC Column: DB624 ID: 0.32 (mm)

Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL)

Soil Aliquot Volume: 100 (uL)

CONCENTRATION UNITS:

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

74-87-3	Chloromethane	1800	U
75-01-4	Vinyl chloride	1800	U
75-00-3	Chloroethane	1800	U
74-83-9	Bromomethane	1800	U
67-64-1	Acetone	1800	U
75-35-4	1,1-Dichloroethene	1800	U
75-09-2	Methylene chloride	1800	U
75-15-0	Carbon disulfide	1800	U
75-34-3	1,1-Dichloroethane	1800	U
78-93-3	2-Butanone	1800	U
540-59-0	1,2-Dichloroethene (total)	1800	U
67-66-3	Chloroform	1800	U
107-06-2	1,2-Dichloroethane	1800	U
71-55-6	1,1,1-Trichloroethane	1800	U
56-23-5	Carbon tetrachloride	1800	U
71-43-2	Benzene	1800	U
79-01-6	Trichloroethene	1800	U
78-87-5	1,2-Dichloropropane	1800	U
75-27-4	Bromodichloromethane	1800	U
10061-01-5	cis-1,3-Dichloropropene	1800	U
10061-02-6	trans-1,3-Dichloropropene	1800	U
79-00-5	1,1,2-Trichloroethane	1800	U
124-48-1	Dibromochloromethane	1800	U
75-25-2	Bromoform	1800	U
108-10-1	4-Methyl-2-pentanone	1800	U
108-88-3	Toluene	76000	E
591-78-6	2-Hexanone	1800	U
127-18-4	Tetrachloroethene	1800	U
108-90-7	Chlorobenzene	1800	U
100-41-4	Ethylbenzene	1800	U
1330-20-7	o-Xylene	1800	U
100-42-5	Styrene	1800	U
108-88-3	1,1,2,2-Tetrachloroethane	1800	U
108383& 106423	(m+p) Xylene	1800	U

001/3/80 95-1 ASP R

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-1

Lab Name: CAS\ROC Contract: IT GROUP
Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1
Matrix: (soil/water) SOIL Lab Sample ID: 291631 125
Sample wt/vol: 4.0 (g/ml) G Lab File ID: Y2081.D
Level: (low/med) MED Date Received: 05/11/99
% Moisture: not dec. 31 Date Analyzed: 05/18/99
GC Column: DB624 ID: 0.32 (mm) Dilution Factor: 1.0
Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

CONCENTRATION UNITS:

Number TICs found: 3

(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	RT	EST. CONC.	Q
1.	unknown hydrocarbon	5.43	6600	J
2.	unknown hydrocarbon	7.55	2400	J
3.	unknown hydrocarbon	8.42	3000	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1DL

Lab Name: CASIROC Contract: IT GROUP

Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) SOIL Lab Sample ID: 291631 500

Sample wt/vol: 4.0 (g/ml) G Lab File ID: Y2124.D

Level: (low/med) MED Date Received: 05/11/99

% Moisture: not dec. 31 Date Analyzed: 05/21/99

GC Column: DB624 ID: 0.32 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
74-87-3	Chloromethane	1800	U	
75-01-4	Vinyl chloride	1800	U	
74-83-9	Bromomethane	1800	U	
75-00-3	Chloroethane	1800	U	
75-35-4	1,1-Dichloroethene	1800	U	
67-64-1	Acetone	1300	J	
75-15-0	Carbon disulfide	1800	U	
75-09-2	Methylene chloride	1800	U	
75-34-3	1,1-Dichloroethane	1800	U	
78-93-3	2-Butanone	1800	U	
540-59-0	1,2-Dichloroethene (total)	1800	U	
67-66-3	Chloroform	1800	U	
107-06-2	1,2-Dichloroethane	1800	U	
71-55-6	1,1,1-Trichloroethane	1800	U	
56-23-5	Carbon tetrachloride	1800	U	
71-43-2	Benzene	1800	U	
79-01-6	Trichloroethene	1800	U	
78-87-5	1,2-Dichloropropane	1800	U	
75-27-4	Bromodichloromethane	1800	U	
10061-01-5	cis-1,3-Dichloropropene	1800	U	
10061-02-6	trans-1,3-Dichloropropene	1800	U	
79-00-5	1,1,2-Trichloroethane	1800	U	
124-48-1	Dibromochloromethane	1800	U	
75-25-2	Bromoform	1800	U	
108-10-1	4-Methyl-2-pentanone	1800	U	
108-88-3	Toluene	32000		
127-18-4	Tetrachloroethene	1800	U	
591-78-6	2-Hexanone	1800	U	
108-90-7	Chlorobenzene	1800	U	
100-41-4	Ethylbenzene	1800	U	
108383& 106423	(m+p) Xylene	1800	U	
1330-20-7	o-Xylene	1800	U	
100-42-5	Styrene	1800	U	
108-88-3	1,1,2,2-Tetrachloroethane	1800	U	

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-1DL

Lab Name: CAS\ROC Contract: IT GROUP
Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1
Matrix: (soil/water) SOIL Lab Sample ID: 291631 500
Sample wt/vol: 4.0 (g/ml) G Lab File ID: Y2124.D
Level: (low/med) MED Date Received: 05/11/99
% Moisture: not dec. 31 Date Analyzed: 05/21/99
GC Column: DB624 ID: 0.32 (mm) Dilution Factor: 1.0
Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Number TICs found: 2

CAS NO.	COMPOUND	RT	EST. CONC.	Q
1.	unknown hydrocarbon	5.42	4500	J
2.	unknown hydrocarbon	6.16	1600	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2

Lab Name: CAS-ROC Contract: IT GROUP

Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) SOIL Lab Sample ID: 291632 1.0

Sample wt/vol: 5.0 (g/ml) G Lab File ID: Q2058.D

Level: (low/med) LOW Date Received: 05/11/99

% Moisture: not dec. 17.1 Date Analyzed: 05/18/99

GC Column: HP624 ID: 0.20 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
74-87-3	Chloromethane	12	U	
75-01-4	Vinyl Chloride	12	U	
75-00-3	Chloroethane	12	U	
74-83-9	Bromomethane	12	U	
67-64-1	Acetone	6	J	
75-35-4	1,1-Dichloroethene	12	U	
75-09-2	Methylene Chloride	12	U	
75-15-0	Carbon Disulfide	12	U	
75-34-3	1,1-Dichloroethane	12	U	
78-93-3	2-Butanone	12	U	
540-59-0	1,2-Dichloroethene (total)	12	U	
67-66-3	Chloroform	12	U	
107-06-2	1,2-Dichloroethane	12	U	
71-55-6	1,1,1-Trichloroethane	12	U	
56-23-5	Carbon tetrachloride	12	U	
71-43-2	Benzene	12	U	
79-01-6	Trichloroethene	12	U	
78-87-5	1,2-Dichloropropane	12	U	
75-27-4	Bromodichloromethane	12	U	
10061-01-5	cis-1,3-Dichloropropene	12	U	
10061-02-6	trans-1,3-Dichloropropene	12	U	
79-00-5	1,1,2-Trichloroethane	12	U	
124-48-1	Dibromochloromethane	12	U	
75-25-2	Bromoform	12	U	
108-10-1	4-Methyl-2-pentanone	12	U	
108-88-3	Toluene	14		
127-18-4	Tetrachloroethene	12	J	
591-78-6	2-Hexanone	12	U	
108-90-7	Chlorobenzene	12	U	
100-41-4	Ethylbenzene	12	U	
108383&106423	(m+p) Xylene	12	U	
1330-20-7	o-Xylene	12	U	
100-42-5	Styrene	12	U	
79-34-5	1,1,2,2-Tetrachloroethane	12	U	

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-2

Lab Name: CAS-ROC Contract: IT GROUP
Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1
Matrix: (soil/~~water~~) SOIL Lab Sample ID: 291632 1.0
Sample wt/vol: 5.0 (g/ml) G Lab File ID: Q2058.D
Level: (low/~~med~~) LOW Date Received: 05/11/99
% Moisture: not dec. 17.1 Date Analyzed: 05/18/99
GC Column: HP624 ID: 0.20 (mm) Dilution Factor: 1.0
Soil Extract Volume: 1 (uL) Soil Aliquot Volume: 1 (uL)

CONCENTRATION UNITS:

Number TICs found: 4 (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown hydrocarbon	3.09	6	J
2. 000110-54-3	Hexane	5.43	8	JN
3. 000109-99-9	Furan, tetrahydro-	7.02	7	JN
4.	unknown hydrocarbon	9.31	8	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-3

Lab Name: CAS-ROC Contract: IT GROUP

Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) SOIL Lab Sample ID: 291633 1.0

Sample wt/vol: 5.0 (g/ml) G Lab File ID: Q2059.D

Level: (low/med) LOW Date Received: 05/11/99

% Moisture: not dec. 12 Date Analyzed: 05/18/99

GC Column: HP624 ID: 0.20 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
74-87-3	Chloromethane		11	U
75-01-4	Vinyl Chloride		11	U
75-00-3	Chloroethane		11	U
74-83-9	Bromomethane		11	U
67-64-1	Acetone		37	
75-35-4	1,1-Dichloroethene		11	U
75-09-2	Methylene Chloride		11	U
75-15-0	Carbon Disulfide		11	U
75-34-3	1,1-Dichloroethane		11	U
78-93-3	2-Butanone		11	U
540-59-0	1,2-Dichloroethene (total)		11	U
67-66-3	Chloroform		11	U
107-06-2	1,2-Dichloroethane		11	U
71-55-6	1,1,1-Trichloroethane		11	U
56-23-5	Carbon tetrachloride		11	U
71-43-2	Benzene		11	U
79-01-6	Trichloroethene		11	U
78-87-5	1,2-Dichloropropane		11	U
75-27-4	Bromodichloromethane		11	U
10061-01-5	cis-1,3-Dichloropropene		11	U
10061-02-6	trans-1,3-Dichloropropene		11	U
79-00-5	1,1,2-Trichloroethane		11	U
124-48-1	Dibromochloromethane		11	U
75-25-2	Bromoform		11	U
108-10-1	4-Methyl-2-pentanone		11	U
108-88-3	Toluene		5	J
127-18-4	Tetrachloroethene		11	U
591-78-6	2-Hexanone		11	U
108-90-7	Chlorobenzene		11	U
100-41-4	Ethylbenzene		11	U
108383&106423	(m+p) Xylene		11	U
1330-20-7	o-Xylene		11	U
100-42-5	Styrene		11	U
79-34-5	1,1,2,2-Tetrachloroethane		11	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-3

Lab Name: CAS-ROC Contract: IT GROUP
Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1
Matrix: (soil/~~water~~) SOIL Lab Sample ID: 291633 1.0
Sample wt/vol: 5.0 (g/ml) G Lab File ID: Q2059.D
Level: (low/~~med~~) LOW Date Received: 05/11/99
% Moisture: not dec. 12 Date Analyzed: 05/18/99
GC Column: HP624 ID: 0.20 (mm) Dilution Factor: 1.0
Soil Extract Volume: 1 (uL) Soil Aliquot Volume: 1 (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Number TICs found: 3

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown hydrocarbon	3.09	8	J
2.	unknown	3.99	6	J
3. 000109-99-9	Furan, tetrahydro-	7.02	9	JN

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

COOLER BLANK

Lab Name: CAS-ROC Contract: IT GROUP

Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 291634 1.0

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: Q2085.D

Level: (low/med) LOW Date Received: 05/11/99

% Moisture: not dec. _____ Date Analyzed: 05/19/99

GC Column: HP624 ID: 0.20 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
74-87-3	Chloromethane		10	U
75-01-4	Vinyl Chloride		10	U
75-00-3	Chloroethane		10	U
74-83-9	Bromomethane		10	U
67-64-1	Acetone		10	U
75-35-4	1,1-Dichloroethene		10	U
75-09-2	Methylene Chloride		10	U
75-15-0	Carbon Disulfide		10	U
75-34-3	1,1-Dichloroethane		10	U
78-93-3	2-Butanone		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
71-55-6	1,1,1-Trichloroethane		10	U
56-23-5	Carbon tetrachloride		10	U
71-43-2	Benzene		10	U
79-01-6	Trichloroethene		10	U
78-87-5	1,2-Dichloropropane		10	U
75-27-4	Bromodichloromethane		10	U
10061-01-5	cis-1,3-Dichloropropene		10	U
10061-02-6	trans-1,3-Dichloropropene		10	U
79-00-5	1,1,2-Trichloroethane		10	U
124-48-1	Dibromochloromethane		10	U
75-25-2	Bromoform		10	U
108-10-1	4-Methyl-2-pentanone		10	U
108-88-3	Toluene		10	U
127-18-4	Tetrachloroethene		10	U
591-78-6	2-Hexanone		10	U
108-90-7	Chlorobenzene		10	U
100-41-4	Ethylbenzene		10	U
108383&106423	(m+p) Xylene		10	U
1330-20-7	o-Xylene		10	U
100-42-5	Styrene		10	U
79-34-5	1,1,2,2-Tetrachloroethane		10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

COOLER BLANK

Lab Name: CAS-ROC Contract: IT GROUP
Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1
Matrix: (soil/water) WATER Lab Sample ID: 291634 1.0
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: Q2085.D
Level: (low/med) LOW Date Received: 05/11/99
% Moisture: not dec. _____ Date Analyzed: 05/19/99
GC Column: HP624 ID: 0.20 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Number TICs found: 2

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	3.10	9	J
2. 000109-99-9	Furan, tetrahydro-	7.01	6	JN

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-5(6-8)

Lab Name: CAS-ROC Contract: IT GROUP
 Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1
 Matrix: (soil/water) SOIL Lab Sample ID: 292406 5.0
 Sample wt/vol: 1.0 (g/ml) G Lab File ID: Q2054.D
 Level: (low/med) LOW Date Received: 05/12/99
 % Moisture: not dec. 26.2 Date Analyzed: 05/18/99
 GC Column: HP624 ID: 0.20 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
74-87-3	Chloromethane		68	U
75-01-4	Vinyl Chloride		68	U
75-00-3	Chloroethane		570	
74-83-9	Bromomethane		68	U
67-64-1	Acetone		210	
75-35-4	1,1-Dichloroethene		68	U
75-09-2	Methylene Chloride		50	J
75-15-0	Carbon Disulfide		68	U
75-34-3	1,1-Dichloroethane		46	J
78-93-3	2-Butanone		68	U
540-59-0	1,2-Dichloroethene (total)		68	U
67-66-3	Chloroform		68	U
107-06-2	1,2-Dichloroethane		68	U
71-55-6	1,1,1-Trichloroethane		68	U
56-23-5	Carbon tetrachloride		68	U
71-43-2	Benzene		19	J
79-01-6	Trichloroethene		68	U
78-87-5	1,2-Dichloropropane		68	U
75-27-4	Bromodichloromethane		68	U
10061-01-5	cis-1,3-Dichloropropene		68	U
10061-02-6	trans-1,3-Dichloropropene		68	U
79-00-5	1,1,2-Trichloroethane		68	U
124-48-1	Dibromochloromethane		68	U
75-25-2	Bromoform		68	U
108-10-1	4-Methyl-2-pentanone		68	U
108-88-3	Toluene		600	
127-18-4	Tetrachloroethene		68	U
591-78-6	2-Hexanone		68	U
108-90-7	Chlorobenzene		68	U
100-41-4	Ethylbenzene		68	U
108383&106423	(m+p) Xylene		86	
1330-20-7	o-Xylene		68	U
100-42-5	Styrene		68	U
79-34-5	1,1,2,2-Tetrachloroethane		68	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-5(6-8)

Lab Name: CAS-ROC Contract: IT GROUP

Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) SOIL Lab Sample ID: 292406 5.0

Sample wt/vol: 1.0 (g/ml) G Lab File ID: Q2054.D

Level: (low/med) LOW Date Received: 05/12/99

% Moisture: not dec. 26.2 Date Analyzed: 05/18/99

GC Column: HP624 ID: 0.20 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Number TICs found: 20

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown hydrocarbon	4.55	520	J
2.	unknown hydrocarbon	4.96	1200	J
3. 000110-54-3	Hexane	5.42	1800	JN
4. 000096-37-7	Cyclopentane, methyl-	6.38	3000	JN
5.	unknown hydrocarbon	7.45	1100	J
6. 000565-59-3	Pentane, 2,3-dimethyl-	7.56	350	JN
7. 000589-34-4	Hexane, 3-methyl-	7.74	960	JN
8.	unknown hydrocarbon	8.06	370	J
9.	unknown hydrocarbon	8.16	330	J
10.	unknown hydrocarbon	8.25	570	J
11. 000142-82-5	Heptane	8.47	1400	JN
12. 000108-87-2	Cyclohexane, methyl-	9.32	11000	JN
13.	unknown hydrocarbon	9.40	370	J
14. 000589-43-5	Hexane, 2,4-dimethyl-	9.48	510	JN
15.	unknown hydrocarbon	9.63	1200	J
16.	unknown hydrocarbon	9.77	820	J
17.	unknown hydrocarbon	10.00	890	J
18. 000592-27-8	Heptane, 2-methyl-	10.41	470	JN
19.	unknown hydrocarbon	10.51	300	J
20.	unknown hydrocarbon	10.65	230	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-5(6-8)DUP

Lab Name: CAS-ROC Contract: IT GROUP

Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) SOIL Lab Sample ID: 292407 5.0

Sample wt/vol: 1.0 (g/ml) G Lab File ID: Q2057.D

Level: (low/med) LOW Date Received: 05/12/99

% Moisture: not dec. 28.3 Date Analyzed: 05/18/99

GC Column: HP624 ID: 0.20 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

74-87-3	Chloromethane	69	U
75-01-4	Vinyl Chloride	69	U
75-00-3	Chloroethane	390	
74-83-9	Bromomethane	69	U
67-64-1	Acetone	110	
75-35-4	1,1-Dichloroethene	69	U
75-09-2	Methylene Chloride	53	J
75-15-0	Carbon Disulfide	69	U
75-34-3	1,1-Dichloroethane	37	J
78-93-3	2-Butanone	69	U
540-59-0	1,2-Dichloroethene (total)	69	U
67-66-3	Chloroform	69	U
107-06-2	1,2-Dichloroethane	69	U
71-55-6	1,1,1-Trichloroethane	69	U
56-23-5	Carbon tetrachloride	69	U
71-43-2	Benzene	17	J
79-01-6	Trichloroethene	69	U
78-87-5	1,2-Dichloropropane	69	U
75-27-4	Bromodichloromethane	69	U
10061-01-5	cis-1,3-Dichloropropene	69	U
10061-02-6	trans-1,3-Dichloropropene	69	U
79-00-5	1,1,2-Trichloroethane	69	U
124-48-1	Dibromochloromethane	69	U
75-25-2	Bromoform	69	U
108-10-1	4-Methyl-2-pentanone	69	U
108-88-3	Toluene	440	
127-18-4	Tetrachloroethene	69	U
591-78-6	2-Hexanone	69	U
108-90-7	Chlorobenzene	69	U
100-41-4	Ethylbenzene	69	U
108383&106423	(m+p) Xylene	110	
1330-20-7	o-Xylene	69	U
100-42-5	Styrene	69	U
79-34-5	1,1,2,2-Tetrachloroethane	69	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-5(6-8)DUP

Lab Name: CAS-ROC Contract: IT GROUP

Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/~~water~~) SOIL Lab Sample ID: 292407 5.0

Sample wt/vol: 1.0 (g/ml) G Lab File ID: Q2057.D

Level: (low/~~med~~) LOW Date Received: 05/12/99

% Moisture: not dec. 28.3 Date Analyzed: 05/18/99

GC Column: HP624 ID: 0.20 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Number TICs found: 20

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000107-83-5	Pentane, 2-methyl-	4.56	710	JN
2. 000096-14-0	Pentane, 3-methyl-	4.97	1700	JN
3. 000110-54-3	Hexane	5.44	2200	JN
4. 000096-37-7	Cyclopentane, methyl-	6.40	3500	JN
5.	unknown hydrocarbon	7.46	1200	J
6. 000565-59-3	Pentane, 2,3-dimethyl-	7.58	450	JN
7. 000589-34-4	Hexane, 3-methyl-	7.76	1200	JN
8.	unknown hydrocarbon	8.08	480	J
9. 002453-00-1	Cyclopentane, 1,3-dimethyl-	8.17	420	JN
10. 002452-99-5	Cyclopentane, 1,2-dimethyl-	8.26	740	JN
11. 000142-82-5	Heptane	8.48	1600	JN
12. 000108-87-2	Cyclohexane, methyl-	9.33	10000	JN
13.	unknown hydrocarbon	9.42	430	J
14. 000589-43-5	Hexane, 2,4-dimethyl-	9.50	630	JN
15.	unknown hydrocarbon	9.64	1300	J
16.	unknown hydrocarbon	9.78	1000	J
17.	unknown hydrocarbon	10.01	1100	J
18. 000592-27-8	Heptane, 2-methyl-	10.42	540	JN
19.	unknown hydrocarbon	10.52	360	J
20.	unknown hydrocarbon	15.16	650	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-4(0-8)

Lab Name: CAS-ROC Contract: IT GROUP
 Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1
 Matrix: (soil/water) SOIL Lab Sample ID: 292408 1.0
 Sample wt/vol: 5.0 (g/ml) G Lab File ID: Q2060.D
 Level: (low/med) LOW Date Received: 05/12/99
 % Moisture: not dec. 33.9 Date Analyzed: 05/18/99
 GC Column: HP624 ID: 0.20 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
74-87-3	Chloromethane		15	U
75-01-4	Vinyl Chloride		15	U
75-00-3	Chloroethane		15	U
74-83-9	Bromomethane		15	U
67-64-1	Acetone		18	
75-35-4	1,1-Dicethene		15	U
75-09-2	Methylene Chloride		15	U
75-15-0	Carbon Disulfide		15	U
75-34-3	1,1-Dicethane		15	U
78-93-3	2-Butanone		15	U
540-59-0	1,2-Dichloroethene (total)		15	U
67-66-3	Chloroform		15	U
107-06-2	1,2-Dichloroethane		15	U
71-55-6	1,1,1-Trichloroethane		15	U
56-23-5	Carbon tetrachloride		15	U
71-43-2	Benzene		15	U
79-01-6	Trichloroethene		15	U
78-87-5	1,2-Dicthopropane		15	U
75-27-4	Bromodichloromethane		15	U
10061-01-5	cis-1,3-Dichloropropene		15	U
10061-02-6	trans-1,3-Dichloropropene		15	U
79-00-5	1,1,2-Trichloroethane		15	U
124-48-1	Dibromochloromethane		15	U
75-25-2	Bromoform		15	U
108-10-1	4-Methyl-2-pentanone		15	U
108-88-3	Toluene		140	
127-18-4	Tetrachloroethene		19	
591-78-6	2-Hexanone		15	U
108-90-7	Chlorobenzene		15	U
100-41-4	Ethylbenzene		15	U
108383&106423	(m+p) Xylene		15	U
1330-20-7	o-Xylene		15	U
100-42-5	Styrene		15	U
79-34-5	1,1,2,2-Tetrachloroethane		15	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-4(0-8)

Lab Name: CAS-ROC Contract: IT GROUP
Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1
Matrix: (soil/water) SOIL Lab Sample ID: 292408 1.0
Sample wt/vol: 5.0 (g/ml) G Lab File ID: Q2060.D
Level: (low/med) LOW Date Received: 05/12/99
% Moisture: not dec. 33.9 Date Analyzed: 05/18/99
GC Column: HP624 ID: 0.20 (mm) Dilution Factor: 1.0
Soil Extract Volume: 1 (uL) Soil Aliquot Volume: 1 (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Number TICs found: 6

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown hydrocarbon	3.09	12	J
2.	unknown hydrocarbon	4.96	15	J
3. 000110-54-3	Hexane	5.43	35	JN
4.	unknown hydrocarbon	6.39	25	J
5. 000109-99-9	Furan, tetrahydro-	7.01	12	JN
6.	unknown hydrocarbon	18.17	15	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-4(0-8)RE

Lab Name: CAS-ROC Contract: IT GROUP

Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) SOIL Lab Sample ID: 292408 1.0

Sample wt/vol: 5.0 (g/ml) G Lab File ID: Q2084.D

Level: (low/med) LOW Date Received: 05/12/99

% Moisture: not dec. 33.9 Date Analyzed: 05/19/99

GC Column: HP624 ID: 0.20 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
74-87-3	Chloromethane	15	U	
75-01-4	Vinyl Chloride	15	U	
75-00-3	Chloroethane	15	U	
74-83-9	Bromomethane	15	U	
67-64-1	Acetone	7	J	
75-35-4	1,1-Dichloroethene	15	U	
75-09-2	Methylene Chloride	15	U	
75-15-0	Carbon Disulfide	15	U	
75-34-3	1,1-Dichloroethane	15	U	
78-93-3	2-Butanone	15	U	
540-59-0	1,2-Dichloroethene (total)	15	U	
67-66-3	Chloroform	15	U	
107-06-2	1,2-Dichloroethane	15	U	
71-55-6	1,1,1-Trichloroethane	15	U	
56-23-5	Carbon tetrachloride	15	U	
71-43-2	Benzene	15	U	
79-01-6	Trichloroethene	15	U	
78-87-5	1,2-Dichloropropane	15	U	
75-27-4	Bromodichloromethane	15	U	
10061-01-5	cis-1,3-Dichloropropene	15	U	
10061-02-6	trans-1,3-Dichloropropene	15	U	
79-00-5	1,1,2-Trichloroethane	15	U	
124-48-1	Dibromochloromethane	15	U	
75-25-2	Bromoform	15	U	
108-10-1	4-Methyl-2-pentanone	15	U	
108-88-3	Toluene	110		
127-18-4	Tetrachloroethene	8	J	
591-78-6	2-Hexanone	15	U	
108-90-7	Chlorobenzene	15	U	
100-41-4	Ethylbenzene	15	U	
108383&106423	(m+p) Xylene	15	U	
1330-20-7	o-Xylene	15	U	
100-42-5	Styrene	15	U	
79-34-5	1,1,2,2-Tetrachloroethane	15	U	

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-4(0-8)RE

Lab Name: CAS-ROC Contract: IT GROUP
Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1
Matrix: (soil/~~water~~) SOIL Lab Sample ID: 292408 1.0
Sample wt/vol: 5.0 (g/ml) G Lab File ID: Q2084.D
Level: (low/~~med~~) LOW Date Received: 05/12/99
% Moisture: not dec. 33.9 Date Analyzed: 05/19/99
GC Column: HP624 ID: 0.20 (mm) Dilution Factor: 1.0
Soil Extract Volume: 1 (uL) Soil Aliquot Volume: 1 (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Number TICs found: 7

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	3.10	10	J
2.	unknown	3.29	8	J
3.	unknown	4.55	10	J
4.	unknown	4.97	9	J
5. 000110-54-3	Hexane	5.43	29	JN
6. 000071-23-8	1-Propanol	5.92	10	JN
7.	unknown hydrocarbon	6.39	15	J

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-1

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) SOIL Lab Sample ID: 291631

Sample wt/vol: 30 (g/ml) G Lab File ID: AB557.D

Level: (low/med) LOW Date Received: 5/11/99

% Moisture: 31 decanted: (Y/N) N Date Extracted: 5/12/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 5/20/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.6

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
108-95-2	Phenol	480		U
111-44-4	bis(-2-Chloroethyl)Ether	480		U
95-57-8	2-Chlorophenol	480		U
541-73-1	1,3-Dichlorobenzene	480		U
106-46-7	1,4-Dichlorobenzene	480		U
95-50-1	1,2-Dichlorobenzene	480		U
108-60-1	2,2'-oxybis(1-Chloropropane)	480		U
95-48-7	2-Methylphenol	1200		
621-24-7	N-Nitroso-Di-n-propylamine	480		U
67-72-1	Hexachloroethane	480		U
106-44-5	4-Methylphenol	1500		
98-95-3	Nitrobenzene	480		U
78-59-1	Isophorone	480		U
88-75-5	2-Nitrophenol	480		U
105-67-9	2,4-Dimethylphenol	480		U
111-91-1	bis(-2-Chloroethoxy)Methane	480		U
120-83-2	2,4-Dichlorophenol	480		U
120-82-1	1,2,4-Trichlorobenzene	480		U
91-20-3	Naphthalene	420		J
106-47-8	4-Chloroaniline	480		U
87-68-3	Hexachlorobutadiene	480		U
59-50-7	4-Chloro-3-methylphenol	480		U
91-57-6	2-Methylnaphthalene	370		J
77-47-4	Hexachlorocyclopentadiene	480		U
88-06-2	2,4,6-Trichlorophenol	480		U
95-95-4	2,4,5-Trichlorophenol	1200		U
91-58-7	2-Chloronaphthalene	480		U
88-74-4	2-Nitroaniline	1200		U
208-96-8	Acenaphthylene	120		J
131-11-3	Dimethyl Phthalate	480		U
606-20-2	2,6-Dinitrotoluene	480		U
83-32-9	Acenaphthene	610		
99-09-2	3-Nitroaniline	1200		U
51-28-5	2,4-Dinitrophenol	1200		U
132-64-9	Dibenzofuran	700		
121-14-2	2,4-Dinitrotoluene	480		U
100-02-7	4-Nitrophenol	1200		U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-1

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) SOIL Lab Sample ID: 291631

Sample wt/vol: 30 (g/ml) G Lab File ID: AB557.D

Level: (low/med) LOW Date Received: 5/11/99

% Moisture: 31 decanted: (Y/N) N Date Extracted: 5/12/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 5/20/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.6

CONCENTRATION UNITS:

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

86-73-7	Fluorene	1000	
7005-72-3	4-Chlorophenyl-phenylether	480	U
84-66-2	Diethylphthalate	480	U
100-01-6	4-Nitroaniline	1200	U
534-52-1	4,6-Dinitro-2-methylphenol	1200	U
86-30-6	N-Nitrosodiphenylamine	480	U
101-55-3	4-Bromophenyl-phenylether	480	U
118-74-1	Hexachlorobenzene	480	U
87-86-5	Pentachlorophenol	1200	U
85-01-8	Phenanthrene	3900	
120-12-7	Anthracene	690	
86-74-8	Carbazole	330	J
84-74-2	Di-n-Butylphthalate	55	J
206-44-0	Fluoranthene	2300	
129-00-0	Pyrene	1600	
85-68-7	Butyl benzyl phthalate	480	U
91-94-1	3,3'-Dichlorobenzidine	480	U
56-55-3	Benzo(a)Anthracene	780	
218-01-9	Chrysene	740	
117-81-7	Bis(2-Ethylhexyl)Phthalate	300	JB
117-84-0	Di-n-octyl phthalate	480	U
205-99-2	Benzo(b)fluoranthene	580	
207-08-9	Benzo(k)Fluoranthene	490	
50-32-8	Benzo(a)Pyrene	590	
193-39-5	Indeno(1,2,3-cd)Pyrene	490	
53-70-3	Dibenz(a,h)anthracene	190	J
191-24-2	Benzo(g,h,i)Perylene	590	

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-1

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) SOIL Lab Sample ID: 291631

Sample wt/vol: 30 (g/ml) G Lab File ID: AB557.D

Level: (low/med) LOW Date Received: 5/11/99

% Moisture: 31 decanted: (Y/N) N Date Extracted: 5/12/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 5/20/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.6

CONCENTRATION UNITS:

Number TICs found: 13 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 000535-77-3	Benzene, 1-methyl-3-(1-methylet	5.88	550	JN
2. 000095-93-2	Benzene, 1,2,4,5-tetramethyl-	6.91	380	JN
3. 000090-12-0	Naphthalene, 1-methyl-	9.06	360	JN
4. 000581-40-8	Naphthalene, 2,3-dimethyl-	10.21	470	JN
5. 1000197-14-1	4b,8-Dimethyl-2-isopropylphenan	16.12	640	JN
6. 069009-90-1	1,1'-Biphenyl, bis(1-methylethyl)-	16.80	930	JN
7. 000198-55-0	Perylene	23.14	1300	JN
8.	unknown	24.70	450	J
9.	unknown	25.33	1300	J
10. 000215-58-7	Benzo[b]triphenylene	27.72	410	JN
11.	unknown	30.54	420	J
12.	unknown	30.91	780	J
13.	unknown	31.36	700	J

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-2

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) SOIL Lab Sample ID: 291632

Sample wt/vol: 30 (g/ml) G Lab File ID: AB558.D

Level: (low/med) LOW Date Received: 5/11/99

% Moisture: 17.1 decanted:(Y/N) N Date Extracted: 5/12/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 5/20/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.7

CONCENTRATION UNITS:

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

108-95-2	Phenol	400	U
111-44-4	bis(-2-Chloroethyl)Ether	400	U
95-57-8	2-Chlorophenol	400	U
541-73-1	1,3-Dichlorobenzene	400	U
106-46-7	1,4-Dichlorobenzene	400	U
95-50-1	1,2-Dichlorobenzene	400	U
108-60-1	2,2'-oxybis(1-Chloropropane)	400	U
95-48-7	2-Methylphenol	400	U
621-24-7	N-Nitroso-Di-n-propylamine	400	U
67-72-1	Hexachloroethane	400	U
106-44-5	4-Methylphenol	400	U
98-95-3	Nitrobenzene	400	U
78-59-1	Isophorone	400	U
88-75-5	2-Nitrophenol	400	U
105-67-9	2,4-Dimethylphenol	400	U
111-91-1	bis(-2-Chloroethoxy)Methane	400	U
120-83-2	2,4-Dichlorophenol	400	U
120-82-1	1,2,4-Trichlorobenzene	400	U
91-20-3	Naphthalene	400	U
106-47-8	4-Chloroaniline	400	U
87-68-3	Hexachlorobutadiene	400	U
59-50-7	4-Chloro-3-methylphenol	400	U
91-57-6	2-Methylnaphthalene	400	U
77-47-4	Hexachlorocyclopentadiene	400	U
88-06-2	2,4,6-Trichlorophenol	400	U
95-95-4	2,4,5-Trichlorophenol	1000	U
91-58-7	2-Chloronaphthalene	400	U
88-74-4	2-Nitroaniline	1000	U
208-96-8	Acenaphthylene	400	U
131-11-3	Dimethyl Phthalate	400	U
606-20-2	2,6-Dinitrotoluene	400	U
83-32-9	Acenaphthene	400	U
99-09-2	3-Nitroaniline	1000	U
51-28-5	2,4-Dinitrophenol	1000	U
132-64-9	Dibenzofuran	400	U
121-14-2	2,4-Dinitrotoluene	400	U
100-02-7	4-Nitrophenol	1000	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-2

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) SOIL Lab Sample ID: 291632

Sample wt/vol: 30 (g/ml) G Lab File ID: AB558.D

Level: (low/med) LOW Date Received: 5/11/99

% Moisture: 17.1 decanted: (Y/N) N Date Extracted: 5/12/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 5/20/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.7

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
86-73-7	Fluorene	43	J
7005-72-3	4-Chlorophenyl-phenylether	400	U
84-66-2	Diethylphthalate	400	U
100-01-6	4-Nitroaniline	1000	U
534-52-1	4,6-Dinitro-2-methylphenol	1000	U
86-30-6	N-Nitrosodiphenylamine	400	U
101-55-3	4-Bromophenyl-phenylether	400	U
118-74-1	Hexachlorobenzene	400	U
87-86-5	Pentachlorophenol	1000	U
85-01-8	Phenanthrene	710	
120-12-7	Anthracene	120	J
86-74-8	Carbazole	95	J
84-74-2	Di-n-Butylphthalate	130	J
206-44-0	Fluoranthene	1600	
129-00-0	Pyrene	910	
85-68-7	Butyl benzyl phthalate	60	J
91-94-1	3,3'-Dichlorobenzidine	400	U
56-55-3	Benzo(a)Anthracene	520	
218-01-9	Chrysene	690	
117-81-7	Bis(2-Ethylhexyl)Phthalate	1400	B
117-84-0	Di-n-octyl phthalate	400	U
205-99-2	Benzo(b)fluoranthene	580	
207-08-9	Benzo(k)Fluoranthene	540	
50-32-8	Benzo(a)Pyrene	620	
193-39-5	Indeno(1,2,3-cd)Pyrene	600	
53-70-3	Dibenz(a,h)anthracene	400	U
191-24-2	Benzo(g,h,i)Perylene	700	

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-2

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/~~water~~) SOIL Lab Sample ID: 291632

Sample wt/vol: 30 (g/ml) G Lab File ID: AB558.D

Level: (low/~~med~~) LOW Date Received: 5/11/99

% Moisture: 17.1 decanted: (Y/N) N Date Extracted: 5/12/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 5/20/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.7

CONCENTRATION UNITS:

Number TICs found: 17 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 034375-89-8	Pyrrolidine, 3-methyl-	4.74	120	JN
2. 000930-68-7	2-Cyclohexen-1-one	4.79	110	JN
3. 005166-53-0	3-Hexen-2-one, 5-methyl-	5.06	300	JNAB
4.	unknown	5.64	100	J
5.	unknown	10.74	120	J
6. 000779-02-2	Anthracene, 9-methyl-	15.10	140	JN
7. 000613-12-7	Anthracene, 2-methyl-	15.17	140	JN
8. 000314-40-9	Bromacil	15.34	660	JN
9. 000084-65-1	9,10-Anthracenedione	15.81	200	JN
10.	unknown	16.55	130	J
11.	unknown	16.89	90	J
12.	unknown	21.95	110	J
13. 000205-82-3	Benzo[j]fluoranthene	22.63	120	JN
14. 000205-99-2	Benz[e]acephenanthrylene	23.12	570	JN
15.	unknown	26.59	94	J
16. 000191-24-2	Benzo[ghi]perylene	26.72	210	JN
17. 000215-58-7	Benzo[b]triphenylene	27.70	150	JN

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-3

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) SOIL Lab Sample ID: 291633 1/10

Sample wt/vol: 30 (g/ml) G Lab File ID: AB559.D

Level: (low/med) LOW Date Received: 5/11/99

% Moisture: 12 decanted: (Y/N) N Date Extracted: 5/12/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 5/20/99

Injection Volume: 2.0 (uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) Y pH: 9.6

CONCENTRATION UNITS:

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

108-95-2	Phenol	3800	U
111-44-4	bis(-2-Chloroethyl)Ether	3800	U
95-57-8	2-Chlorophenol	3800	U
541-73-1	1,3-Dichlorobenzene	3800	U
106-46-7	1,4-Dichlorobenzene	3800	U
95-50-1	1,2-Dichlorobenzene	3800	U
108-60-1	2,2'-oxybis(1-Chloropropane)	3800	U
95-48-7	2-Methylphenol	3800	U
621-24-7	N-Nitroso-Di-n-propylamine	3800	U
67-72-1	Hexachloroethane	3800	U
106-44-5	4-Methylphenol	3800	U
98-95-3	Nitrobenzene	3800	U
78-59-1	Isophorone	3800	U
88-75-5	2-Nitrophenol	3800	U
105-67-9	2,4-Dimethylphenol	3800	U
111-91-1	bis(-2-Chloroethoxy)Methane	3800	U
120-83-2	2,4-Dichlorophenol	3800	U
120-82-1	1,2,4-Trichlorobenzene	3800	U
91-20-3	Naphthalene	3800	U
106-47-8	4-Chloroaniline	3800	U
87-68-3	Hexachlorobutadiene	3800	U
59-50-7	4-Chloro-3-methylphenol	3800	U
91-57-6	2-Methylnaphthalene	3800	U
77-47-4	Hexachlorocyclopentadiene	3800	U
88-06-2	2,4,6-Trichlorophenol	3800	U
95-95-4	2,4,5-Trichlorophenol	9500	U
91-58-7	2-Chloronaphthalene	3800	U
88-74-4	2-Nitroaniline	9500	U
208-96-8	Acenaphthylene	3800	U
131-11-3	Dimethyl Phthalate	3800	U
606-20-2	2,6-Dinitrotoluene	3800	U
83-32-9	Acenaphthene	920	JD
99-09-2	3-Nitroaniline	9500	U
51-28-5	2,4-Dinitrophenol	9500	U
132-64-9	Dibenzofuran	750	JD
121-14-2	2,4-Dinitrotoluene	3800	U
100-02-7	4-Nitrophenol	9500	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-3

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) SOIL Lab Sample ID: 291633 1/10

Sample wt/vol: 30 (g/ml) G Lab File ID: AB559.D

Level: (low/med) LOW Date Received: 5/11/99

% Moisture: 12 decanted:(Y/N) N Date Extracted: 5/12/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 5/20/99

Injection Volume: 2.0 (uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) Y pH: 9.6

CONCENTRATION UNITS:

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

86-73-7	Fluorene	1100	JD
7005-72-3	4-Chlorophenyl-phenylether	3800	U
84-66-2	Diethylphthalate	3800	U
100-01-6	4-Nitroaniline	9500	U
534-52-1	4,6-Dinitro-2-methylphenol	9500	U
86-30-6	N-Nitrosodiphenylamine	3800	U
101-55-3	4-Bromophenyl-phenylether	3800	U
118-74-1	Hexachlorobenzene	3800	U
87-86-5	Pentachlorophenol	9500	U
85-01-8	Phenanthrene	12000	D
120-12-7	Anthracene	2400	JD
86-74-8	Carbazole	1400	JD
84-74-2	Di-n-Butylphthalate	3800	U
206-44-0	Fluoranthene	15000	D
129-00-0	Pyrene	10000	D
85-68-7	Butyl benzyl phthalate	3800	U
91-94-1	3,3'-Dichlorobenzidine	3800	U
56-55-3	Benzo(a)Anthracene	5700	D
218-01-9	Chrysene	6000	D
117-81-7	Bis(2-Ethylhexyl)Phthalate	900	JBD
117-84-0	Di-n-octyl phthalate	3800	U
205-99-2	Benzo(b)fluoranthene	3900	D
207-08-9	Benzo(k)Fluoranthene	3700	JD
50-32-8	Benzo(a)Pyrene	5100	D
193-39-5	Indeno(1,2,3-cd)Pyrene	3600	JD
53-70-3	Dibenz(a,h)anthracene	3800	U
191-24-2	Benzo(g,h,i)Perylene	4500	D

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-3

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) SOIL Lab Sample ID: 291633 1/10

Sample wt/vol: 30 (g/ml) G Lab File ID: AB559.D

Level: (low/med) LOW Date Received: 5/11/99

% Moisture: 12 decanted: (Y/N) N Date Extracted: 5/12/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 5/20/99

Injection Volume: 2.0 (uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) Y pH: 9.6

CONCENTRATION UNITS:

Number TICs found: 24 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	6.49	800	JD
2. 054676-39-0	Cyclohexane, 2-butyl-1,1,3-trimet	8.00	1100	JND
3.	unknown	8.58	1500	JD
4.	unknown	8.98	840	JD
5.	unknown	9.72	830	JD
6.	unknown	10.64	1100	JD
7. 000779-02-2	Anthracene, 9-methyl-	15.13	1200	JND
8. 000613-12-7	Anthracene, 2-methyl-	15.19	1600	JND
9. 083469-43-6	6H-Cyclobuta[jk]phenanthrene	15.40	3000	JND
10. 000084-65-1	9,10-Anthracenedione	15.84	1300	JND
11. 000243-17-4	11H-Benzo[b]fluorene	17.70	790	JND
12. 002381-21-7	Pyrene, 1-methyl-	17.94	1000	JND
13.	unknown	18.62	1400	JD
14.	unknown	19.32	1400	JD
15.	unknown	19.37	1400	JD
16.	unknown	19.44	1400	JD
17. 000217-59-4	Triphenylene	20.10	800	JND
18. 002498-75-1	Benz[a]anthracene, 3-methyl-	20.73	780	JND
19.	unknown	21.99	810	JD
20. 000192-97-2	Benzo[e]pyrene	22.68	1100	JND
21. 000192-97-2	Benzo[e]pyrene	23.15	3200	JND
22.	unknown	26.32	770	JD
23.	unknown	27.56	1100	JD
24.	unknown	27.76	1200	JD

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-4

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) SOIL Lab Sample ID: 292408

Sample wt/vol: 30 (g/ml) G Lab File ID: AB556.D

Level: (low/med) LOW Date Received: 5/12/99

% Moisture: 33.9 decanted: (Y/N) N Date Extracted: 5/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 5/19/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.6

CONCENTRATION UNITS:

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

108-95-2	Phenol	510	U
111-44-4	bis(-2-Chloroethyl)Ether	510	U
95-57-8	2-Chlorophenol	510	U
541-73-1	1,3-Dichlorobenzene	510	U
106-46-7	1,4-Dichlorobenzene	510	U
95-50-1	1,2-Dichlorobenzene	510	U
108-60-1	2,2'-oxybis(1-Chloropropane)	510	U
95-48-7	2-Methylphenol	510	U
621-24-7	N-Nitroso-Di-n-propylamine	510	U
67-72-1	Hexachloroethane	510	U
106-44-5	4-Methylphenol	510	U
98-95-3	Nitrobenzene	510	U
78-59-1	Isophorone	510	U
88-75-5	2-Nitrophenol	510	U
105-67-9	2,4-Dimethylphenol	510	U
111-91-1	bis(-2-Chloroethoxy)Methane	510	U
120-83-2	2,4-Dichlorophenol	510	U
120-82-1	1,2,4-Trichlorobenzene	510	U
91-20-3	Naphthalene	150	J
106-47-8	4-Chloroaniline	510	U
87-68-3	Hexachlorobutadiene	510	U
59-50-7	4-Chloro-3-methylphenol	510	U
91-57-6	2-Methylnaphthalene	200	J
77-47-4	Hexachlorocyclopentadiene	510	U
88-06-2	2,4,6-Trichlorophenol	510	U
95-95-4	2,4,5-Trichlorophenol	1300	U
91-58-7	2-Chloronaphthalene	510	U
88-74-4	2-Nitroaniline	1300	U
208-96-8	Acenaphthylene	61	J
131-11-3	Dimethyl Phthalate	510	U
606-20-2	2,6-Dinitrotoluene	510	U
83-32-9	Acenaphthene	220	J
99-09-2	3-Nitroaniline	1300	U
51-28-5	2,4-Dinitrophenol	1300	U
132-64-9	Dibenzofuran	200	J
121-14-2	2,4-Dinitrotoluene	510	U
100-02-7	4-Nitrophenol	1300	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-4

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) SOIL Lab Sample ID: 292408

Sample wt/vol: 30 (g/mi) G Lab File ID: AB556.D

Level: (low/med) LOW Date Received: 5/12/99

% Moisture: 33.9 decanted: (Y/N) N Date Extracted: 5/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 5/19/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.6

CONCENTRATION UNITS:

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

86-73-7	Fluorene	300	J
7005-72-3	4-Chlorophenyl-phenylether	510	U
84-66-2	Diethylphthalate	510	U
100-01-6	4-Nitroaniline	1300	U
534-52-1	4,6-Dinitro-2-methylphenol	1300	U
86-30-6	N-Nitrosodiphenylamine	510	U
101-55-3	4-Bromophenyl-phenylether	510	U
118-74-1	Hexachlorobenzene	510	U
87-86-5	Pentachlorophenol	1300	U
85-01-8	Phenanthrene	3300	
120-12-7	Anthracene	700	
86-74-8	Carbazole	420	J
84-74-2	Di-n-Butylphthalate	71	J
206-44-0	Fluoranthene	4900	E
129-00-0	Pyrene	2900	
85-68-7	Butyl benzyl phthalate	510	U
91-94-1	3,3'-Dichlorobenzidine	510	U
56-55-3	Benzo(a)Anthracene	1800	
218-01-9	Chrysene	2000	
117-81-7	Bis(2-Ethylhexyl)Phthalate	500	JB
117-84-0	Di-n-octyl phthalate	510	U
205-99-2	Benzo(b)fluoranthene	1400	
207-08-9	Benzo(k)Fluoranthene	1300	
50-32-8	Benzo(a)Pyrene	1600	
193-39-5	Indeno(1,2,3-cd)Pyrene	1200	
53-70-3	Dibenz(a,h)anthracene	510	U
191-24-2	Benzo(g,h,i)Perylene	1400	

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-4

Lab Name: Columbia Analytical Services Contract: IT
 Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1
 Matrix: (soil/water) SOIL Lab Sample ID: 292408
 Sample wt/vol: 30 (g/ml) G Lab File ID: AB556.D
 Level: (low/med) LOW Date Received: 5/12/99
 % Moisture: 33.9 decanted: (Y/N) N Date Extracted: 5/14/99
 Concentrated Extract Volume: 500 (uL) Date Analyzed: 5/19/99
 Injection Volume: 2.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) Y pH: 7.6

CONCENTRATION UNITS:

Number TICs found: 22(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 004436-75-3	3-Hexene-2,5-dione	4.95	300	JNBA
2. 004436-75-3	3-Hexene-2,5-dione	5.07	2900	JNBA
3. 000111-90-0	Ethanol, 2-(2-ethoxyethoxy)-	5.58	1600	JN
4. 000581-40-8	Naphthalene, 2,3-dimethyl-	10.20	250	JN
5.	unknown	14.76	210	J
6.	unknown acid	15.10	1100	J
7. 000613-12-7	Anthracene, 2-methyl-	15.18	520	JN
8. 000090-60-8	Benzaldehyde, 3,5-dichloro-2-hy	15.38	1100	JN
9. 000612-94-2	Naphthalene, 2-phenyl-	15.75	320	JN
10. 000084-65-1	9,10-Anthracenedione	15.82	710	JN
11. 003674-65-5	Phenanthrene, 2,3-dimethyl-	16.11	270	JN
12. 003674-69-9	Phenanthrene, 4,5-dimethyl-	16.36	260	JN
13.	unknown	16.54	290	J
14.	unknown	16.80	410	J
15.	unknown	18.86	280	J
16. 003697-24-3	Chrysene, 5-methyl-	20.70	240	JN
17.	unknown	21.81	290	J
18.	unknown	22.66	310	J
19. 000198-55-0	Perylene	23.14	1500	JN
20.	unknown	25.35	300	J
21.	unknown	26.75	220	J
22.	unknown	27.74	560	J

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-4DL

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) SOIL Lab Sample ID: 292408 1/2

Sample wt/vol: 30 (g/ml) G Lab File ID: AB564.D

Level: (low/med) LOW Date Received: 5/12/99

% Moisture: 33.9 decanted:(Y/N) N Date Extracted: 5/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 5/20/99

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) Y pH: 7.6

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
108-95-2	Phenol	1000		U
111-44-4	bis(-2-Chloroethyl)Ether	1000		U
95-57-8	2-Chlorophenol	1000		U
541-73-1	1,3-Dichlorobenzene	1000		U
106-46-7	1,4-Dichlorobenzene	1000		U
95-50-1	1,2-Dichlorobenzene	1000		U
108-60-1	2,2'-oxybis(1-Chloropropane)	1000		U
95-48-7	2-Methylphenol	1000		U
621-24-7	N-Nitroso-Di-n-propylamine	1000		U
67-72-1	Hexachloroethane	1000		U
106-44-5	4-Methylphenol	1000		U
98-95-3	Nitrobenzene	1000		U
78-59-1	Isophorone	1000		U
88-75-5	2-Nitrophenol	1000		U
105-67-9	2,4-Dimethylphenol	1000		U
111-91-1	bis(-2-Chloroethoxy)Methane	1000		U
120-83-2	2,4-Dichlorophenol	1000		U
120-82-1	1,2,4-Trichlorobenzene	1000		U
91-20-3	Naphthalene	140		JD
106-47-8	4-Chloroaniline	1000		U
87-68-3	Hexachlorobutadiene	1000		U
59-50-7	4-Chloro-3-methylphenol	1000		U
91-57-6	2-Methylnaphthalene	180		JD
77-47-4	Hexachlorocyclopentadiene	1000		U
88-06-2	2,4,6-Trichlorophenol	1000		U
95-95-4	2,4,5-Trichlorophenol	2500		U
91-58-7	2-Chloronaphthalene	1000		U
88-74-4	2-Nitroaniline	2500		U
208-96-8	Acenaphthylene	1000		U
131-11-3	Dimethyl Phthalate	1000		U
606-20-2	2,6-Dinitrotoluene	1000		U
83-32-9	Acenaphthene	200		JD
99-09-2	3-Nitroaniline	2500		U
51-28-5	2,4-Dinitrophenol	2500		U
132-64-9	Dibenzofuran	190		JD
121-14-2	2,4-Dinitrotoluene	1000		U
100-02-7	4-Nitrophenol	2500		U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-4DL

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) SOIL Lab Sample ID: 292408 1/2

Sample wt/vol: 30 (g/ml) G Lab File ID: AB564.D

Level: (low/med) LOW Date Received: 5/12/99

% Moisture: 33.9 decanted: (Y/N) N Date Extracted: 5/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 5/20/99

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) Y pH: 7.6

CONCENTRATION UNITS:

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

86-73-7	Fluorene	270	JD
7005-72-3	4-Chlorophenyl-phenylether	1000	U
84-66-2	Diethylphthalate	1000	U
100-01-6	4-Nitroaniline	2500	U
534-52-1	4,6-Dinitro-2-methylphenol	2500	U
86-30-6	N-Nitrosodiphenylamine	1000	U
101-55-3	4-Bromophenyl-phenylether	1000	U
118-74-1	Hexachlorobenzene	1000	U
187-86-5	Pentachlorophenol	2500	U
85-01-8	Phenanthrene	3200	D
120-12-7	Anthracene	640	JD
86-74-8	Carbazole	380	JD
84-74-2	Di-n-Butylphthalate	1000	U
206-44-0	Fluoranthene	4200	D
129-00-0	Pyrene	3100	D
85-68-7	Butyl benzyl phthalate	1000	U
91-94-1	3,3'-Dichlorobenzidine	1000	U
56-55-3	Benzo(a)Anthracene	1600	D
218-01-9	Chrysene	1900	D
117-81-7	Bis(2-Ethylhexyl)Phthalate	440	JBD
117-84-0	Di-n-octyl phthalate	1000	U
205-99-2	Benzo(b)fluoranthene	1400	D
207-08-9	Benzo(k)Fluoranthene	1700	D
50-32-8	Benzo(a)Pyrene	1600	D
193-39-5	Indeno(1,2,3-cd)Pyrene	1100	D
53-70-3	Dibenz(a,h)anthracene	370	JD
191-24-2	Benzo(g,h,i)Perylene	1300	D

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-4DL

Lab Name: Columbia Analytical Services Contract: IT
 Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1
 Matrix: (soil/water) SOIL Lab Sample ID: 292408 1/2
 Sample wt/vol: 30 (g/ml) G Lab File ID: AB564.D
 Level: (low/med) LOW Date Received: 5/12/99
 % Moisture: 33.9 decanted: (Y/N) N Date Extracted: 5/14/99
 Concentrated Extract Volume: 500 (uL) Date Analyzed: 5/20/99
 Injection Volume: 2.0 (uL) Dilution Factor: 2.0
 GPC Cleanup: (Y/N) Y pH: 7.6

CONCENTRATION UNITS:

Number TICs found: 22 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	4.95	270	JDAB
2. 004436-75-3	3-Hexene-2,5-dione	5.07	2600	JNDAB
3. 000111-90-0	Ethanol, 2-(2-ethoxyethoxy)-	5.62	370	JND
4.	unknown	5.65	570	JD
5. 000610-48-0	Anthracene, 1-methyl-	15.13	500	JND
6. 000613-12-7	Anthracene, 2-methyl-	15.20	720	JND
7. 000779-02-2	Anthracene, 9-methyl-	15.28	310	JND
8. 083469-43-6	6H-Cyclobuta[jk]phenanthrene	15.40	1200	JND
9. 035465-71-5	2-Phenylnaphthalene	15.76	290	JND
10. 000084-65-1	9,10-Anthracenedione	15.84	510	JND
11. 003674-66-6	Phenanthrene, 2,5-dimethyl-	16.37	260	JND
12.	unknown	16.54	280	JD
13. 002381-21-7	Pyrene, 1-methyl-	17.94	260	JND
14. 003353-12-6	Pyrene, 4-methyl-	18.18	250	JND
15. 003351-30-2	Chrysene, 4-methyl-	20.72	360	JND
16.	unknown	21.82	340	JD
17. 000192-97-2	Benzo[e]pyrene	22.66	300	JND
18. 000205-82-3	Benzo[j]fluoranthene	23.15	1200	JND
19.	unknown	23.78	290	JD
20.	unknown	26.31	370	JD
21.	unknown	26.65	260	JD
22.	unknown	26.78	430	JD

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

1B

EPA SAMPLE NO.

Name: Columbia Analytical Services

Code: 10145

Case No.: 99-5-159

Contract: IT

MW-5

(soil/water) SOIL

SAS No.:

SDG No.: MW-1

wt/vol: 30 (g/ml) G

Lab Sample ID: 292406

(low/med) LOW

Lab File ID: AB552.D

ure: 26.2 decanted: (Y/N) N

Date Received: 5/12/99

rated Extract Volume: 500 (uL)

Date Extracted: 5/14/99

Volume: 2.0 (uL)

Date Analyzed: 5/19/99

nup: (Y/N) Y pH: 7

Dilution Factor: 1.0

COMPOUND

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

5-2	Phenol	450	U
4-4	bis(-2-Chloroethyl)Ether	450	U
8	2-Chlorophenol	450	U
-1	1,3-Dichlorobenzene	450	U
7	1,4-Dichlorobenzene	450	U
	1,2-Dichlorobenzene	450	U
	2,2'-oxybis(1-Chloropropane)	450	U
	2-Methylphenol	450	U
	N-Nitroso-Di-n-propylamine	450	U
	Hexachloroethane	450	U
	4-Methylphenol	450	U
	Nitrobenzene	450	U
	Isophorone	450	U
	2-Nitrophenol	450	U
	2,4-Dimethylphenol	450	U
	bis(-2-Chloroethoxy)Methane	450	U
	2,4-Dichlorophenol	450	U
	1,2,4-Trichlorobenzene	450	U
	Naphthalene	450	U
	4-Chloroaniline	450	U
	Hexachlorobutadiene	85	J
	4-Chloro-3-methylphenol	450	U
	2-Methylnaphthalene	450	U
	Hexachlorocyclopentadiene	450	U
	2,4,6-Trichlorophenol	450	U
	2,4,5-Trichlorophenol	450	U
	2-Chloronaphthalene	450	U
	2-Nitroaniline	1100	U
	Acenaphthylene	450	U
	Dimethyl Phthalate	1100	U
	2,6-Dinitrotoluene	95	J
	Acenaphthene	450	U
	3-Nitroaniline	450	U
	2,4-Dinitrophenol	450	U
	Dibenzofuran	1100	U
	2,4-Dinitrotoluene	1100	U
	4-Nitrophenol	450	U
		450	U
		1100	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-5

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-159 SAS No.: SDG No.: MW-1

Matrix: (soil/water) SOIL Lab Sample ID: 292406

Sample wt/vol: 30 (g/ml) G Lab File ID: AB552.D

Level: (low/med) LOW Date Received: 5/12/99

% Moisture: 26.2 decanted: (Y/N) N Date Extracted: 5/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 5/19/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) <u>UG/KG</u>	Q
86-73-7	Fluorene	450	U
7005-72-3	4-Chlorophenyl-phenylether	450	U
84-66-2	Diethylphthalate	450	U
100-01-6	4-Nitroaniline	1100	U
534-52-1	4,6-Dinitro-2-methylphenol	1100	U
86-30-6	N-Nitrosodiphenylamine	450	U
101-55-3	4-Bromophenyl-phenylether	450	U
118-74-1	Hexachlorobenzene	450	U
87-86-5	Pentachlorophenol	1100	U
85-01-8	Phenanthrene	360	J
120-12-7	Anthracene	160	J
86-74-8	Carbazole	450	U
84-74-2	Di-n-Butylphthalate	110	J
206-44-0	Fluoranthene	1100	
129-00-0	Pyrene	1100	
85-68-7	Butyl benzyl phthalate	450	U
91-94-1	3,3'-Dichlorobenzidine	450	U
56-55-3	Benzo(a)Anthracene	710	
218-01-9	Chrysene	690	
117-81-7	Bis(2-Ethylhexyl)Phthalate	300	JB
117-84-0	Di-n-octyl phthalate	450	U
205-99-2	Benzo(b)fluoranthene	530	
207-08-9	Benzo(k)Fluoranthene	390	J
50-32-8	Benzo(a)Pyrene	750	
193-39-5	Indeno(1,2,3-cd)Pyrene	610	
53-70-3	Dibenz(a,h)anthracene	230	J
191-24-2	Benzo(g,h,i)Perylene	850	

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-5

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) SOIL Lab Sample ID: 292406

Sample wt/vol: 30 (g/ml) G Lab File ID: AB552.D

Level: (low/med) LOW Date Received: 5/12/99

% Moisture: 26.2 decanted: (Y/N) N Date Extracted: 5/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 5/19/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7

CONCENTRATION UNITS:

Number TICs found: 26 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 000142-96-1	n-Butyl ether	4.08	340	JN
2. 007785-70-8	1R- α -Pinene	4.83	350	JN
3. 004436-75-3	3-Hexene-2,5-dione	4.93	1200	JNA
4. 000111-90-0	Ethanol, 2-(2-ethoxyethoxy)-	5.56	930	JN
5. 000527-84-4	Benzene, 1-methyl-2-(1-methylet	5.86	490	JN
6. 000138-86-3	Limonene	5.91	530	JN
7. 025155-15-1	Benzene, methyl(1-methylethyl)-	6.21	430	JN
8. 000099-87-6	Benzene, 1-methyl-4-(1-methylet	6.44	310	JN
9.	unknown acid	15.07	400	J
10. 000203-64-5	4H-Cyclopenta[def]phenanthrene	15.36	410	JN
11. 1000197-14-1	4b,8-Dimethyl-2-isopropylphenan	16.09	670	JN
12. 069009-90-1	1,1'-Biphenyl, bis(1-methylethyl)-	16.77	2100	JN
13.	unknown	22.63	1000	J
14. 000198-55-0	Perylene	23.09	820	JN
15.	unknown	23.69	600	J
16.	unknown	23.97	450	J
17.	unknown	24.22	530	J
18.	unknown	24.82	410	J
19.	unknown	25.14	420	J
20.	unknown	25.29	1400	J
21.	unknown	26.24	750	J
22.	unknown	27.69	630	J
23.	unknown	27.87	450	J
24. 055401-75-7	Anthracene, 9-dodecyltetradecah	28.96	480	JN
25.	unknown	29.28	310	J
26.	unknown	31.31	1100	J

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-5DUP

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) SOIL Lab Sample ID: 292407

Sample wt/vol: 30 (g/ml) G Lab File ID: AB555.D

Level: (low/med) LOW Date Received: 5/12/99

% Moisture: 28.3 decanted:(Y/N) N Date Extracted: 5/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 5/19/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.2

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
108-95-2	Phenol	460	U	
111-44-4	bis(-2-Chloroethyl)Ether	460	U	
95-57-8	2-Chlorophenol	460	U	
541-73-1	1,3-Dichlorobenzene	460	U	
106-46-7	1,4-Dichlorobenzene	460	U	
95-50-1	1,2-Dichlorobenzene	460	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	460	U	
95-48-7	2-Methylphenol	460	U	
621-24-7	N-Nitroso-Di-n-propylamine	460	U	
67-72-1	Hexachloroethane	460	U	
106-44-5	4-Methylphenol	460	U	
98-95-3	Nitrobenzene	460	U	
78-59-1	Isophorone	460	U	
88-75-5	2-Nitrophenol	460	U	
105-67-9	2,4-Dimethylphenol	460	U	
111-91-1	bis(-2-Chloroethoxy)Methane	460	U	
120-83-2	2,4-Dichlorophenol	460	U	
120-82-1	1,2,4-Trichlorobenzene	460	U	
91-20-3	Naphthalene	92	J	
106-47-8	4-Chloroaniline	460	U	
87-68-3	Hexachlorobutadiene	460	U	
59-50-7	4-Chloro-3-methylphenol	460	U	
91-57-6	2-Methylnaphthalene	460	U	
77-47-4	Hexachlorocyclopentadiene	460	U	
88-06-2	2,4,6-Trichlorophenol	460	U	
95-95-4	2,4,5-Trichlorophenol	1200	U	
91-58-7	2-Chloronaphthalene	460	U	
88-74-4	2-Nitroaniline	1200	U	
208-96-8	Acenaphthylene	120	J	
131-11-3	Dimethyl Phthalate	460	U	
606-20-2	2,6-Dinitrotoluene	460	U	
83-32-9	Acenaphthene	460	U	
99-09-2	3-Nitroaniline	1200	U	
51-28-5	2,4-Dinitrophenol	1200	U	
132-64-9	Dibenzofuran	460	U	
121-14-2	2,4-Dinitrotoluene	460	U	
100-02-7	4-Nitrophenol	1200	U	

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-5DUP

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-159 SAS No.: SDG No.: MW-1

Matrix: (soil/water) SOIL Lab Sample ID: 292407

Sample wt/vol: 30 (g/ml) G Lab File ID: AB555.D

Level: (low/med) LOW Date Received: 5/12/99

% Moisture: 28.3 decanted: (Y/N) N Date Extracted: 5/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 5/19/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.2

CONCENTRATION UNITS:

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

86-73-7	Fluorene	460	U
7005-72-3	4-Chlorophenyl-phenylether	460	U
84-66-2	Diethylphthalate	460	U
100-01-6	4-Nitroaniline	1200	U
534-52-1	4,6-Dinitro-2-methylphenol	1200	U
86-30-6	N-Nitrosodiphenylamine	460	U
101-55-3	4-Bromophenyl-phenylether	460	U
118-74-1	Hexachlorobenzene	460	U
87-86-5	Pentachlorophenol	1200	U
85-01-8	Phenanthrene	340	J
120-12-7	Anthracene	150	J
86-74-8	Carbazole	460	U
84-74-2	Di-n-Butylphthalate	82	J
206-44-0	Fluoranthene	1400	
129-00-0	Pyrene	1300	
85-68-7	Butyl benzyf phthalate	460	U
91-94-1	3,3'-Dichlorobenzidine	460	U
56-55-3	Benzo(a)Anthracene	830	
218-01-9	Chrysene	850	
117-81-7	Bis(2-Ethylhexyl)Phthalate	210	JB
117-84-0	Di-n-octyl phthalate	460	U
205-99-2	Benzo(b)fluoranthene	540	
207-08-9	Benzo(k)Fluoranthene	580	
50-32-8	Benzo(a)Pyrene	890	
193-39-5	Indeno(1,2,3-cd)Pyrene	630	
53-70-3	Dibenz(a,h)anthracene	220	J
191-24-2	Benzo(g,h,i)Perylene	880	

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-5DUP

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-159 SAS No.: SDG No.: MW-1

Matrix: (soil/water) SOIL Lab Sample ID: 292407

Sample wt/vol: 30 (g/ml) G Lab File ID: AB555.D

Level: (low/med) LOW Date Received: 5/12/99

% Moisture: 28.3 decanted: (Y/N) N Date Extracted: 5/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 5/19/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.2

CONCENTRATION UNITS:

Number TICs found: 27 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 000142-96-1	n-Butyl ether	4.08	360	JN
2. 000930-68-7	2-Cyclohexen-1-one	4.80	180	JN
3. 004436-75-3	3-Hexene-2,5-dione	5.08	4000	JNAD
4. 000111-90-0	Ethanol, 2-(2-ethoxyethoxy)-	5.59	1100	JN
5. 000527-84-4	Benzene, 1-methyl-2-(1-methylet	5.88	630	JN
6. 001074-43-7	Benzene, 1-methyl-3-propyl-	6.16	260	JN
7. 000535-77-3	Benzene, 1-methyl-3-(1-methylet	6.22	300	JN
8. 000934-80-5	Benzene, 4-ethyl-1,2-dimethyl-	6.45	340	JN
9. 000934-80-5	Benzene, 4-ethyl-1,2-dimethyl-	6.52	440	JN
10. 000527-53-7	Benzene, 1,2,3,5-tetramethyl-	6.91	290	JN
11.	unknown acid	7.16	260	J
12. 001560-06-1	Benzene, 2-butenyl-	7.27	240	JN
13. 000057-10-3	n-Hexadecanoic acid	15.10	510	JN
14. 000949-41-7	1H-Cyclopropa[<i>l</i>]phenanthrene, 1	15.18	220	JN
15. 000203-64-5	4H-Cyclopenta[<i>def</i>]phenanthrene	15.40	600	JN
16. 1000197-14-1	4b,8-Dimethyl-2-isopropylphenan	16.12	1400	JN
17. 069009-90-1	1,1'-Biphenyl, bis(1-methylethyl)-	16.81	2100	JN
18. 000483-65-8	Phenanthrene, 1-methyl-7-(1-met	17.86	250	JN
19. 002498-77-3	Benz[<i>a</i>]anthracene, 1-methyl-	20.72	160	JN
20. 000205-82-3	Benzo[<i>j</i>]fluoranthene	22.68	340	JN
21. 000192-97-2	Benzo[<i>e</i>]pyrene	23.15	800	JN
22.	unknown	23.76	350	J
23.	unknown	25.20	240	J
24.	unknown	25.34	280	J
25.	unknown	26.31	500	J
26. 000214-17-5	Benzo[<i>b</i>]chrysene	27.79	440	JN
27.	unknown	29.06	210	J

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 9905-159 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) SOIL Lab Sample ID: 291631

Sample wt/vol: 30 (g/ml) G Lab File ID: DE374.D

% Moisture: 31 decanted: (Y/N) N Date Received: 05/11/99

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 05/12/99

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 05/21/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.6 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	UG/KG
319-84-6	alpha-BHC	2.4	U
58-89-9	gamma-BHC (Lindane)	2.4	U
76-44-8	Heptachlor	2.4	U
309-00-2	Aldrin	2.4	U
319-85-7	beta-BHC	2.4	U
319-86-8	delta-BHC	2.4	U
1024-57-3	Heptachlor Epoxide	2.4	U
959-98-8	Endosulfan I	2.4	U
5103-74-2	gamma-Chlordane	2.4	U
5103-71-9	alpha-Chlordane	2.4	U
72-55-9	4,4'-DDE	4.8	U
60-57-1	Dieldrin	4.8	U
72-20-8	Endrin	4.8	U
33213-65-9	Endosulfan II	4.8	U
72-54-8	4,4'-DDD	4.8	U
50-29-3	4,4'-DDT	4.8	U
7421-36-3	Endrin Aldehyde	4.8	U
1031-07-8	Endosulfan Sulfate	4.8	U
72-43-5	Methoxychlor	24	U
53494-70-5	Endrin Ketone	4.8	U
12674-11-2	Aroclor-1016	48	U
11104-28-2	Aroclor-1221	97	U
11141-16-5	Aroclor-1232	48	U
53469-21-9	Aroclor-1242	48	U
12672-29-6	Aroclor-1248	48	U
11097-69-1	Aroclor-1254	48	U
11096-82-5	Aroclor-1260	48	U
8001-35-2	Toxaphene	240	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2

Lab Name: Columbia Analytical Services Contract: IT
 Lab Code: 10145 Case No.: 9905-159 SAS No.: SDG No.: MW-1
 Matrix: (soil/water) SOIL Lab Sample ID: 291632
 Sample wt/vol: 30 (g/ml) G Lab File ID: DE379.D
 % Moisture: 17.1 decanted: (Y/N) N Date Received: 05/11/99
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 05/12/99
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 05/21/99
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) Y pH: 8.7 Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:

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

319-84-6	alpha-BHC	2.0	U
58-89-9	gamma-BHC (Lindane)	2.0	U
76-44-8	Heptachlor	2.0	U
309-00-2	Aldrin	2.0	U
319-85-7	beta-BHC	2.0	U
319-86-8	delta-BHC	2.0	U
1024-57-3	Heptachlor Epoxide	2.0	U
959-98-8	Endosulfan I	2.0	U
5103-74-2	gamma-Chlordane	2.0	U
5103-71-9	alpha-Chlordane	2.0	U
72-55-9	4,4'-DDE	4.0	U
60-57-1	Dieldrin	4.0	U
72-20-8	Endrin	4.0	U
33213-65-9	Endosulfan II	4.0	U
72-54-8	4,4'-DDD	4.0	U
50-29-3	4,4'-DDT	4.0	U
7421-36-3	Endrin Aldehyde	4.0	U
1031-07-8	Endosulfan Sulfate	4.0	U
72-43-5	Methoxychlor	20	U
53494-70-5	Endrin Ketone	4.0	U
12674-11-2	Aroclor-1016	40	U
11104-28-2	Aroclor-1221	80	U
11141-16-5	Aroclor-1232	40	U
53469-21-9	Aroclor-1242	40	U
12672-29-6	Aroclor-1248	40	U
11097-69-1	Aroclor-1254	40	U
11096-82-5	Aroclor-1260	40	U
8001-35-2	Toxaphene	200	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-3

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 9905-159 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) SOIL Lab Sample ID: 291633

Sample wt/vol: 30 (g/ml) G Lab File ID: DE380.D

% Moisture: 12 decanted: (Y/N) N Date Received: 05/11/99

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 05/12/99

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 05/21/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9.6 Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:

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

319-84-6	alpha-BHC	1.9	U
58-89-9	gamma-BHC (Lindane)	1.9	U
76-44-8	Heptachlor	1.9	U
309-00-2	Aldrin	1.9	U
319-85-7	beta-BHC	4.5	P
319-86-8	delta-BHC	1.9	U
1024-57-3	Heptachlor Epoxide	1.9	U
959-98-8	Endosulfan I	1.9	U
5103-74-2	gamma-Chlordane	1.9	U
5103-71-9	alpha-Chlordane	1.9	U
72-55-9	4,4'-DDE	3.8	U
60-57-1	Dieldrin	3.8	U
72-20-8	Endrin	3.8	U
33213-65-9	Endosulfan II	3.8	U
72-54-8	4,4'-DDD	3.8	U
50-29-3	4,4'-DDT	3.8	U
7421-36-3	Endrin Aldenhyde	3.8	U
1031-07-8	Endosulfan Sulfate	3.8	U
72-43-5	Methoxychlor	19	U
53494-70-5	Endrin Ketone	3.8	U
12674-11-2	Aroclor-1016	38	U
11104-28-2	Aroclor-1221	76	U
11141-16-5	Aroclor-1232	38	U
53469-21-9	Aroclor-1242	38	U
12672-29-6	Aroclor-1248	38	U
11097-69-1	Aroclor-1254	41	
11096-82-5	Aroclor-1260	38	U
8001-35-2	Toxaphene	190	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-4

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 9905-159 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) SOIL Lab Sample ID: 292408

Sample wt/vol: 30 (g/ml) G Lab File ID: DE385.D

% Moisture: 33.9 decanted: (Y/N) N Date Received: 05/12/99

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 05/14/99

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 05/21/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.6 Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:

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

319-84-6	alpha-BHC	2.5	U
58-89-9	gamma-BHC (Lindane)	2.5	U
76-44-8	Heptachlor	2.5	U
309-00-2	Aldrin	2.5	U
319-85-7	beta-BHC	2.5	U
319-86-8	delta-BHC	2.5	U
1024-57-3	Heptachlor Epoxide	2.5	U
959-98-8	Endosulfan I	2.5	U
5103-74-2	gamma-Chlordane	2.5	U
5103-71-9	alpha-Chlordane	2.5	U
72-55-9	4,4'-DDE	5.0	U
60-57-1	Dieldrin	5.0	U
72-20-8	Endrin	5.0	U
33213-65-9	Endosulfan II	5.0	U
72-54-8	4,4'-DDD	5.0	U
50-29-3	4,4'-DDT	5.0	U
7421-36-3	Endrin Aldehyde	5.0	U
1031-07-8	Endosulfan Sulfate	5.0	U
72-43-5	Methoxychlor	25	U
53494-70-5	Endrin Ketone	5.0	U
12674-11-2	Aroclor-1016	50	U
11104-28-2	Aroclor-1221	100	U
11141-16-5	Aroclor-1232	50	U
53469-21-9	Aroclor-1242	50	U
12672-29-6	Aroclor-1248	50	U
11097-69-1	Aroclor-1254	50	U
11096-82-5	Aroclor-1260	50	U
8001-35-2	Toxaphene	250	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-5

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 9905-159 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) SOIL Lab Sample ID: 292406

Sample wt/vol: 30 (g/ml) G Lab File ID: DE391.D

% Moisture: 26.2 decanted: (Y/N) N Date Received: 05/12/99

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 05/12/99

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 05/21/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

319-84-6	alpha-BHC	2.3	U
58-89-9	gamma-BHC (Lindane)	2.3	U
76-44-8	Heptachlor	2.3	U
309-00-2	Aldrin	2.3	U
319-85-7	beta-BHC	2.3	U
319-86-8	delta-BHC	2.3	U
1024-57-3	Heptachlor Epoxide	2.3	U
959-98-8	Endosulfan I	2.3	U
5103-74-2	gamma-Chlordane	2.3	U
5103-71-9	alpha-Chlordane	2.3	U
72-55-9	4,4'-DDE	4.5	U
60-57-1	Dieldrin	4.5	U
72-20-8	Endrin	4.5	U
33213-65-9	Endosulfan II	4.5	U
72-54-8	4,4'-DDD	4.5	U
50-29-3	4,4'-DDT	4.5	U
7421-36-3	Endrin Aldehyde	4.5	U
1031-07-8	Endosulfan Sulfate	4.5	U
72-43-5	Methoxychlor	23	U
53494-70-5	Endrin Ketone	4.5	U
12674-11-2	Aroclor-1016	45	U
11104-28-2	Aroclor-1221	90	U
11141-16-5	Aroclor-1232	45	U
53469-21-9	Aroclor-1242	45	U
12672-29-6	Aroclor-1248	45	U
11097-69-1	Aroclor-1254	990	E
11096-82-5	Aroclor-1260	45	U
8001-35-2	Toxaphene	230	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-5DL

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 9905-159 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) SOIL Lab Sample ID: 292406

Sample wt/vol: 30 (g/ml) G Lab File ID: DE381.D

% Moisture: 26.2 decanted: (Y/N) N Date Received: 05/12/99

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 05/12/99 *CR 6/12/99*

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 05/21/99

Injection Volume: 1.0 (uL) Dilution Factor: 10.0

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

CONCENTRATION UNITS:

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

319-84-6	alpha-BHC	23	U
58-89-9	gamma-BHC (Lindane)	23	U
76-44-8	Heptachlor	23	U
309-00-2	Aldrin	23	U
319-85-7	beta-BHC	23	U
319-86-8	delta-BHC	23	U
1024-57-3	Heptachlor Epoxide	23	U
959-98-8	Endosulfan I	23	U
5103-74-2	gamma-Chlordane	23	U
5103-71-9	alpha-Chlordane	23	U
72-55-9	4,4'-DDE	45	U
60-57-1	Dieldrin	45	U
72-20-8	Endrin	45	U
33213-65-9	Endosulfan II	45	U
72-54-8	4,4'-DDD	45	U
50-29-3	4,4'-DDT	45	U
7421-36-3	Endrin Aldehyde	45	U
1031-07-8	Endosulfan Sulfate	45	U
72-43-5	Methoxychlor	230	U
53494-70-5	Endrin Ketone	45	U
12674-11-2	Aroclor-1016	450	U
11104-28-2	Aroclor-1221	900	U
11141-16-5	Aroclor-1232	450	U
53469-21-9	Aroclor-1242	450	U
12672-29-6	Aroclor-1248	450	U
11097-69-1	Aroclor-1254	990	U
11096-82-5	Aroclor-1260	450	U
8001-35-2	Toxaphene	2300	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-5DUP

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 9905-159 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) SOIL Lab Sample ID: 292407

Sample wt/vol: 30 (g/ml) G Lab File ID: DE394.D

% Moisture: 28.3 decanted: (Y/N) N Date Received: 05/12/99

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 05/14/99

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 05/21/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.2 Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2.3	U
58-89-9	gamma-BHC (Lindane)	2.3	U
76-44-8	Heptachlor	2.3	U
309-00-2	Aldrin	2.3	U
319-85-7	beta-BHC	2.3	U
319-86-8	delta-BHC	2.3	U
1024-57-3	Heptachlor Epoxide	2.3	U
959-98-8	Endosulfan I	2.3	U
5103-74-2	gamma-Chlordane	2.3	U
5103-71-9	alpha-Chlordane	2.3	U
72-55-9	4,4'-DDE	4.6	U
60-57-1	Dieldrin	4.6	U
72-20-8	Endrin	4.6	U
33213-65-9	Endosulfan II	4.6	U
72-54-8	4,4'-DDD	4.6	U
50-29-3	4,4'-DDT	4.6	U
7421-36-3	Endrin Aldehyde	4.6	U
1031-07-8	Endosulfan Sulfate	4.6	U
72-43-5	Methoxychlor	23	U
53494-70-5	Endrin Ketone	4.6	U
12674-11-2	Aroclor-1016	46	U
11104-28-2	Aroclor-1221	93	U
11141-16-5	Aroclor-1232	46	U
53469-21-9	Aroclor-1242	46	U
12672-29-6	Aroclor-1248	46	U
11097-69-1	Aroclor-1254	780	E
11096-82-5	Aroclor-1260	46	U
8001-35-2	Toxaphene	230	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-5DUPDL

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 9905-159 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) SOIL Lab Sample ID: 292407

Sample wt/vol: 30 (g/ml) G Lab File ID: DE384.D

% Moisture: 28.3 decanted: (Y/N) N Date Received: 05/12/99

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 05/14/99

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 05/21/99

Injection Volume: 1.0 (uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) Y pH: 7.2 Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:

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

319-84-6	alpha-BHC	23	U
58-89-9	gamma-BHC (Lindane)	23	U
76-44-8	Heptachlor	23	U
309-00-2	Aldrin	23	U
319-85-7	beta-BHC	23	U
319-86-8	delta-BHC	23	U
1024-57-3	Heptachlor Epoxide	23	U
959-98-8	Endosulfan I	23	U
5103-74-2	gamma-Chlordane	23	U
5103-71-9	alpha-Chlordane	23	U
72-55-9	4,4'-DDE	46	U
60-57-1	Dieldrin	46	U
72-20-8	Endrin	46	U
33213-65-9	Endosulfan II	46	U
72-54-8	4,4'-DDD	46	U
50-29-3	4,4'-DDT	46	U
7421-36-3	Endrin Aldehyde	46	U
1031-07-8	Endosulfan Sulfate	46	U
72-43-5	Methoxychlor	230	U
53494-70-5	Endrin Ketone	46	U
12674-11-2	Aroclor-1016	460	U
11104-28-2	Aroclor-1221	930	U
11141-16-5	Aroclor-1232	460	U
53469-21-9	Aroclor-1242	460	U
12672-29-6	Aroclor-1248	460	U
11097-69-1	Aroclor-1254	840	
11096-82-5	Aroclor-1260	460	U
8001-35-2	Toxaphene	2300	U

COVER PAGE - INORGANIC ANALYSIS DATA PACKAGE

Contract: 9905000159

SDG No.: MW-1

Code:

Case No.:

SAS No.:

W No.: 6010B CLP-M

Sample No.Lab Sample ID.

MW-1

291631

MW-2

291632

MW-3

291633

MW-5 (6-8)

292406

MW-5 (6-8) D

292406D

MW-5 (6-8) S

292406S

MW-5 (6-8) DUP

292407

MW-4 (0-8)

292408

Were ICP interelement corrections applied?

Yes/No YES

Were ICP background corrections applied?

Yes/No YESIf yes-were raw data generated before
application of background corrections?Yes/No NO

Comments:

see the attached case narrative

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature:

Michael K. Perry
6/18/99

Name:

Michael K. Perry

Date:

Title:

Laboratory Manager

INORGANIC CLP

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

MW-1

Contract: 9905000159

Lab Code:

Case No.:

SAS No.:

SDG NO.: MW-1

Matrix (soil/water): SOIL/SEDI

Lab Sample ID: 291631

Level (low/med): LOW

Date Received: 05/11/99

Solids: 69.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6880		*	P
7440-36-0	Antimony	2.9	B	N	P
7440-38-2	Arsenic	18.8		*N	P
7440-39-3	Barium	699			P
7440-41-7	Beryllium	0.63	B		P
7440-43-9	Cadmium	4.8			P
7440-70-2	Calcium	6880		*	P
7440-47-3	Chromium	22.4		*N	P
7440-48-4	Cobalt	7.4	B		P
7440-50-8	Copper	420		*	P
7439-89-6	Iron	43800		*	P
7439-92-1	Lead	621		*	P
7439-95-4	Magnesium	1190	B		P
7439-96-5	Manganese	227		N	P
7439-97-6	Mercury	3.1		*	CV
7440-02-0	Nickel	21.7		E	P
7440-09-7	Potassium	804	B		P
7782-49-2	Selenium	1.6		*N	P
7440-22-4	Silver	0.92	U		P
7440-23-5	Sodium	490	B		P
7440-28-0	Thallium	1.5	U		P
7440-62-2	Vanadium	25.0			P
7440-66-6	Zinc	2360		*E	P

Color Before: BROWN

Clarity Before:

Texture MEDIUM

Color After: YELLOW

Clarity After: CLEAR

Artifacts:

Comments:

0062

INORGANIC CLP

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

MW-2

Contract: 9905000159

Lab Code:

Case No.:

SAS No.:

SDG NO.: MW-1

Matrix (soil/water): SOIL/SEDI

Lab Sample ID: 291632

Level (low/med): LOW

Date Received: 05/11/99

Solids: 82.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	12400		*	P
7440-36-0	Antimony	4.8	B	N	P
7440-38-2	Arsenic	12.4		*N	P
7440-39-3	Barium	376			P
7440-41-7	Beryllium	1.8			P
7440-43-9	Cadmium	1.4			P
7440-70-2	Calcium	59800		*	P
7440-47-3	Chromium	21.1		*N	P
7440-48-4	Cobalt	4.0	B		P
7440-50-8	Copper	154		*	P
7439-89-6	Iron	28400		*	P
7439-92-1	Lead	739		*	P
7439-95-4	Magnesium	10300			P
7439-96-5	Manganese	1360		N	P
7439-97-6	Mercury	0.58		*	CV
7440-02-0	Nickel	26.8		E	P
7440-09-7	Potassium	812	B		P
7782-49-2	Selenium	1.2		*N	P
7440-22-4	Silver	2.1	B		P
7440-23-5	Sodium	644	B		P
7440-28-0	Thallium	1.1	U		P
7440-62-2	Vanadium	18.4			P
7440-66-6	Zinc	1130		*E	P

Color Before: BROWN

Clarity Before:

Texture MEDIUM

Color After: YELLOW

Clarity After: CLEAR

Artifacts:

Comments:

0063

INORGANIC CLP

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

MW-3

Contract: 9905000159

Lab Code:

Case No.:

SAS No.:

SDG NO.: MW-1

Matrix (soil/water): SOIL/SEDI

Lab Sample ID: 291633

Level (low/med): LOW

Date Received: 05/11/99

Solids: 88.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9340		*	P
7440-36-0	Antimony	1.7	U	N	P
7440-38-2	Arsenic	5.4		*N	P
7440-39-3	Barium	103			P
7440-41-7	Beryllium	1.1	B		P
7440-43-9	Cadmium	0.43	B		P
7440-70-2	Calcium	55100		*	P
7440-47-3	Chromium	80.9		*N	P
7440-48-4	Cobalt	3.4	B		P
7440-50-8	Copper	35.0		*	P
7439-89-6	Iron	16900		*	P
7439-92-1	Lead	124		*	P
7439-95-4	Magnesium	7750			P
7439-96-5	Manganese	3080		N	P
7439-97-6	Mercury	0.35		*	CV
7440-02-0	Nickel	10.9		E	P
7440-09-7	Potassium	718	B		P
7782-49-2	Selenium	0.68	U	*N	P
7440-22-4	Silver	0.73	U		P
7440-23-5	Sodium	793	B		P
7440-28-0	Thallium	1.2	U		P
7440-62-2	Vanadium	34.4			P
7440-66-6	Zinc	90.8		*E	P

Color Before: BROWN

Clarity Before:

Texture MEDIUM

Color After: YELLOW

Clarity After: CLEAR

Artifacts:

Comments:

0064

INORGANIC CLP

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

MW-5 (6-8)

Contract: 9905000159

Code:

Case No.:

SAS No.:

SDG NO.: MW-1

Matrix (soil/water): SOIL/SEDI

Lab Sample ID: 292406

Level (low/med): LOW

Date Received: 05/12/99

Solids: 73.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4510		*	P
7440-36-0	Antimony	3.3	B	N	P
7440-38-2	Arsenic	12.4		*N	P
7440-39-3	Barium	149			P
7440-41-7	Beryllium	0.40	B		P
7440-43-9	Cadmium	2.3			P
7440-70-2	Calcium	51500		*	P
7440-47-3	Chromium	19.3		*N	P
7440-48-4	Cobalt	6.1	B		P
7440-50-8	Copper	267		*	P
7439-89-6	Iron	23700		*	P
7439-92-1	Lead	658		*	P
7439-95-4	Magnesium	29200			P
7439-96-5	Manganese	281		N	P
7439-97-6	Mercury	0.98		*	CV
7440-02-0	Nickel	12.0		E	P
7440-09-7	Potassium	565	B		P
7782-49-2	Selenium	9.9		*N	P
7440-22-4	Silver	0.87	U		P
7440-23-5	Sodium	381	B		P
7440-28-0	Thallium	1.4	U		P
7440-62-2	Vanadium	17.7			P
7440-66-6	Zinc	1660		*E	P

Color Before: BROWN

Clarity Before:

Texture MEDIUM

Color After: YELLOW

Clarity After: CLEAR

Artifacts:

Comments:

9065

INORGANIC CLP

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

MW-5(6-8) DUP

Contract: 9905000159

Code:

Case No.:

SAS No.:

SDG NO.: MW-1

Matrix (soil/water): SOIL/SEDI

Lab Sample ID: 292407

Level (low/med): LOW

Date Received: 05/12/99

Solids: 71.7

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2420		*	P
7440-36-0	Antimony	2.0	U	N	P
7440-38-2	Arsenic	19.9		*N	P
7440-39-3	Barium	127			P
7440-41-7	Beryllium	0.48	B		P
7440-43-9	Cadmium	1.4			P
7440-70-2	Calcium	5890		*	P
7440-47-3	Chromium	34.4		*N	P
7440-48-4	Cobalt	9.2	B		P
7440-50-8	Copper	389		*	P
7439-89-6	Iron	89500		*	P
7439-92-1	Lead	750		*	P
7439-95-4	Magnesium	511	B		P
7439-96-5	Manganese	432		N	P
7439-97-6	Mercury	1.0		*	CV
7440-02-0	Nickel	19.2		E	P
7440-09-7	Potassium	290	B		P
7782-49-2	Selenium	12.7		*N	P
7440-22-4	Silver	0.86	U		P
7440-23-5	Sodium	232	B		P
7440-28-0	Thallium	1.4	U		P
7440-62-2	Vanadium	30.0			P
7440-66-6	Zinc	809		*E	P

Color Before: BROWN

Clarity Before:

Texture MEDIUM

Color After: YELLOW

Clarity After: CLEAR

Artifacts:

Comments:

9088

INORGANIC CLP

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

MW-4 (0-8)

Contract: 9905000159

Lab Code:

Case No.:

SAS No.:

SDG NO.: MW-1

Matrix (soil/water): SOIL/SEDI

Lab Sample ID: 292408

Level (low/med): LOW

Date Received: 05/12/99

Solids: 66.1

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7430		*	P
7440-36-0	Antimony	4.7	B	N	P
7440-38-2	Arsenic	14.8		*N	P
7440-39-3	Barium	207			P
7440-41-7	Beryllium	0.71	B		P
7440-43-9	Cadmium	2.1			P
7440-70-2	Calcium	8190		*	P
7440-47-3	Chromium	16.9		*N	P
7440-48-4	Cobalt	8.3	B		P
7440-50-8	Copper	469		*	P
7439-89-6	Iron	39600		*	P
7439-92-1	Lead	411		*	P
7439-95-4	Magnesium	2890			P
7439-96-5	Manganese	258		N	P
7439-97-6	Mercury	36.0		*	CV
7440-02-0	Nickel	29.8		E	P
7440-09-7	Potassium	933	B		P
7782-49-2	Selenium	1.7		*N	P
7440-22-4	Silver	0.91	U		P
7440-23-5	Sodium	269	B		P
7440-28-0	Thallium	1.5	U		P
7440-62-2	Vanadium	22.7			P
7440-66-6	Zinc	991		*E	P

Color Before: BROWN

Clarity Before:

Texture MEDIUM

Color After: YELLOW

Clarity After: CLEAR

Artifacts:

Comments:

0067

COLUMBIA ANALYTICAL SERVICES

Reported: 06/15/99

IT Corporation
Project Reference: PIERCE & STEVENS, INC
Client Sample ID :MW-1

Date Sampled : 05/11/99 Order #: 291631 Sample Matrix: SOIL/SEDIMENT
Date Received: 05/11/99 Submission #: 9905000159

ANALYTE	PQL	RESULT	DRY WT. UNITS	DATE ANALYZED	ANALYTICAL DILUTION
PERCENT SOLIDS	1.0	69.0	%	05/18/99	1.0
TOTAL CYANIDE	0.500	0.725 U	MG/KG	05/19/99	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 06/15/99

IT Corporation
Project Reference: PIERCE & STEVENS, INC
Client Sample ID : MW-2

Date Sampled : 05/11/99	Order #: 291632	Sample Matrix: SOIL/SEDIMENT
Date Received: 05/11/99	Submission #: 9905000159	

ANALYTE	PQL	RESULT	DRY WT. UNITS	DATE ANALYZED	ANALYTICAL DILUTION
PERCENT SOLIDS	1.0	82.9	%	05/18/99	1.0
TOTAL CYANIDE	0.500	0.862	MG/KG	05/19/99	1.0

0089

COLUMBIA ANALYTICAL SERVICES

Reported: 06/15/99

IT Corporation
Project Reference: PIERCE & STEVENS, INC
Client Sample ID : MW-3

Date Sampled : 05/11/99 Order #: 291633 Sample Matrix: SOIL/SEDIMENT
Date Received: 05/11/99 Submission #: 9905000159

ANALYTE	PQL	RESULT	DRY WT. UNITS	DATE ANALYZED	ANALYTICAL DILUTION
PERCENT SOLIDS	1.0	88.0	%	05/18/99	1.0
TOTAL CYANIDE	0.500	2.66	MG/KG	05/19/99	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 06/15/99

IT Corporation
Project Reference: PIERCE & STEVENS, INC
Client Sample ID : MW-5(6'-8)

Date Sampled : 05/11/99 Order #: 292406 Sample Matrix: SOIL/SEDIMENT
Date Received: 05/12/99 Submission #: 9905000159

ANALYTE	PQL	RESULT	DRY WT. UNITS	DATE ANALYZED	ANALYTICAL DILUTION
PERCENT SOLIDS	1.0	73.8	%	05/18/99	1.0
TOTAL CYANIDE	0.500	0.678 U	MG/KG	05/19/99	1.0

0071

COLUMBIA ANALYTICAL SERVICES

Reported: 06/15/99

IT Corporation
Project Reference: PIERCE & STEVENS, INC
Client Sample ID : MW-5 (6'-8) DUP

Date Sampled : 05/11/99 Order #: 292407 Sample Matrix: SOIL/SEDIMENT
Date Received: 05/12/99 Submission #: 9905000159

ANALYTE	PQL	RESULT	DRY WT. UNITS	DATE ANALYZED	ANALYTICAL DILUTION
PERCENT SOLIDS	1.0	71.7	%	05/18/99	1.0
TOTAL CYANIDE	0.500	0.697 U	MG/KG	05/19/99	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 06/15/99

IT Corporation
Project Reference: PIERCE & STEVENS, INC
Client Sample ID : MW-4 (0'-8)

Date Sampled : 05/11/99 Order #: 292408 Sample Matrix: SOIL/SEDIMENT
Date Received: 05/12/99 Submission #: 9905000159

ANALYTE	PQL	RESULT	DRY WT. UNITS	DATE ANALYZED	ANALYTICAL DILUTION
PERCENT SOLIDS	1.0	66.1	%	05/18/99	1.0
TOTAL CYANIDE	0.500	0.756 U	MG/KG	05/19/99	1.0

9673

2A
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CAS-ROC Contract: IT GROUP
Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1

	EPA	SMC1	SMC2	SMC3	TOT
	SAMPLE NO.	#	#	#	OUT
01	COOLER BLAN	106	99	89	0

			QC LIMITS
SMC1	=	SURR1,1,2-Dicethane	(76-114)
SMC2	=	SURR,Toluene-d8	(88-110)
SMC3	=	SURR2,BFB	(86-115)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D System Monitoring Compound diluted out

2B
SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CAS-ROC Contract: IT GROUP
 Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1
 Level: (low/med) LOW

	EPA SAMPLE NO.	SMC1 #	SMC2 #	SMC3 #	TOT OUT
01	VBLK01	106	98	96	0
02	VBLK01MS	108	96	93	0
03	MW-5(6-8)	108	109	90	0
04	MW-5(6-8)MS	108	115	91	0
05	MW-5(6-8)MSD	108	123	80	0
06	MW-5(6-8)DUP	107	114	88	0
07	MW-2	105	119	77	0
08	MW-3	109	109	84	0
09	MW-4(0-8)	109	109	80	0
10	VBLK03	99	100	89	0
11	MW-2RE	98	123	83	0
12	MW-4(0-8)RE	102	122	65	0

MW 4/8/94

QC LIMITS

SMC1	=	SURR1,1,2-Dicethane	(70-121)
SMC2	=	SURR,Toluene-d8	(84-138)
SMC3	=	SURR2,BFB	(59-113)

Column to be used to flag recovery values
 * Values outside of contract required QC limits
 D System Monitoring Compound diluted out

2B
SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CASIROC Contract: IT GROUP
Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1
Level: (low/med) MED

	EPA SAMPLE NO.	SMC1 #	SMC2 #	SMC3 #	TOT OUT
01	VBLK02	95	94	97	0
02	VBLK02MS	83	90	100	0
03	MW-1	51*	86	100	1
04	MW-1MS	42*	87	101	1
05	MW-1MSD	57*	90	98	1

		QC LIMITS
SMC1	= 1,2-Dichloroethane-d4	(70-121)
SMC2	= Toluene-d8	(84-138)
SMC3	= Bromofluorobenzene	(59-113)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D System Monitoring Compound diluted out

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CASIROC Contract: IT GROUP
Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1
Level: (low/med) MED

	EPA	SMC1	SMC2	SMC3	TOT
	SAMPLE NO.	#	#	#	OUT
01	VBLK04	106	95	99	0
02	MW-1DL	106	97	97	0

		QC LIMITS
SMC1	= 1,2-Dichloroethane-d4	(70-121)
SMC2	= Toluene-d8	(84-138)
SMC3	= Bromofluorobenzene	(59-113)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: Columbia Analytical Services Contract: IT
 Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1
 Level: (low/med) LOW

	EPA SAMPLE NO.	S1 (2FP) #	S2 [PHL] #	S3 #	S4 #	S5 (NBZ) #	S6 (FBP) #	S7 #	S8 (TPH) #	TOT OUT
01	SBLK1	50	53	54	47	58	61	47	81	0
02	SBLK1MS	50	55	55	50	59	62	46	79	0
03	SBLK2MS	50	58	57	51	58	63	47	88	0
04	MW-5	61	62	60	41	66	71	77	69	0
05	MW-5MS	65	67	66	49	71	74	82	68	0
06	MW-5MSD	69	75	72	49	74	75	95	67	0
07	MW-5DUP	63	66	64	47	66	68	83	60	0
08	MW-4	59	62	60	41	63	65	81	61	0
09	MW-1	64	73	67	52	68	69	87	65	0
10	MW-2	57	62	60	50	64	66	86	63	0
11	MW-3	69 7	76 8	72 7	63 8	71 7	72 7	70 7	72 7	0 8
12	SBLK2	45	51	51	47	57	60	43	78	0
13	MW-4DL	28	30	29	20	31	33	33	34	0

TEE
S/26

QC LIMITS

S1 (2FP)	=	2-Fluorophenol	(25-121)
S2 [PHL]	=	Phenol-d6	(24-113)
S3	=	2-Chlorophenol-d4	(20-130)
S4	=	1,2-Dichlorobenzene-d4	(20-130)
S5 (NBZ)	=	Nitrobenzene-d5	(23-120)
S6 (FBP)	=	2-Fluorobiphenyl	(30-115)
S7	=	2,4,6-Tribromophenol	(19-122)
S8 (TPH)	=	Terphenyl-d14	(18-137)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate diluted out

2F
SOIL PESTICIDE SURROGATE RECOVERY

Lab Name: Columbia Analytical Services Contract: IT
 Lab Code: 10145 Case No.: 9905-159 SAS No.: _____ SDG No.: MW-1
 GC Column (1): RTx-CLP ID: 0.32 (mm) GC Column (2): RTx-CLP2 ID: 0.32 (mm)

	EPA	TCX 1	TCX 2	DCB 1	DCB 2	TOT
	SAMPLE NO.	%REC #	%REC #	%REC #	%REC #	OUT
01	PBLK1	83	87	88	83	0
02	PBLK1MS	71	74	90	83	0
03	PBLK2	57	57	74	71	0
04	PBLK2MS	71	71	85	80	0
05	MW-1	79	78	76	152 *	1
06	MW-2	77	78	79	132	0
07	MW-3	61	72	73	106	0
08	MW-5DL	71	73	57	193	1
09	MW-5DUPDL	76	78	76	141	0
10	MW-4	56	68	74	266 *	1
11	MW-5	65	70	56	242 *	1
12	MW-5MS	75	76	54	308 *	1
13	MW-5MSD	83	82	79	193 *	1
14	MW-5DUP	75	76	80	171 *	1
15	PBLK1MSRE	73	72	85	92	0
16	PBLK2MSRE	77	77	82	81	0

ADVISORY
QC LIMITS

TCX = Tetrachloro-m-xylene (30-150)
 DCB = Decachlorobiphenyl (30-150)

Column to be used to flag recovery values
 * Values outside of contract required QC limits
 D Surrogate diluted out

3B
SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: **CAS-ROC**

Contract: **IT GROUP**

Lab Code: **10145**

Case No.: **99-5-159**

SAS No.: _____

SDG No.: **MW-1**

Matrix Spike - EPA Sample No. **MW-5(6-8)**

Level: (low/med) **LOW**

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
1,1-Dicethene	340	0.0	340	100	59 - 172
Benzene	340	19	380	106	66 - 142
Trichloroethene	340	0.0	330	97	62 - 137
Toluene	340	600	1200	165 *	59 - 139
Chlorobenzene	340	0.0	340	100	60 - 133

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	REC.
1,1-Dicethene	340	310	91	9	22	59 - 172
Benzene	340	400	112	6	21	66 - 142
Trichloroethene	340	330	97	0	24	62 - 137
Toluene	340	1300	206 *	16	21	59 - 139
Chlorobenzene	340	350	103	3	21	60 - 133

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike Recovery: 2 out of 10 outside limits

COMMENTS:

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-5(6-8)MS

Lab Name: CAS-ROC

Contract: IT GROUP

Lab Code: 10145

Case No.: 99-5-159

SAS No.: _____

SDG No.: MW-1

Matrix: (soil/water) SOIL

Lab Sample ID: 292406 5.0MS

Sample wt/vol: 1.0 (g/ml) G

Lab File ID: Q2055.D

Level: (low/med) LOW

Date Received: 05/12/99

% Moisture: not dec. 26.2

Date Analyzed: 05/18/99

GC Column: HP624 ID: 0.20 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
74-87-3	Chloromethane	68		U
75-01-4	Vinyl Chloride	68		U
75-00-3	Chloroethane	790		
74-83-9	Bromomethane	68		U
67-64-1	Acetone	290		
75-35-4	1,1-Dichloroethene	340		
75-09-2	Methylene Chloride	66		J
75-15-0	Carbon Disulfide	68		U
75-34-3	1,1-Dichloroethane	64		J
78-93-3	2-Butanone	68		U
540-59-0	1,2-Dichloroethene (total)	68		U
67-66-3	Chloroform	68		U
107-06-2	1,2-Dichloroethane	68		U
71-55-6	1,1,1-Trichloroethane	18		J
56-23-5	Carbon tetrachloride	68		U
71-43-2	Benzene	380		
79-01-6	Trichloroethene	330		
78-87-5	1,2-Dichloropropane	68		U
75-27-4	Bromodichloromethane	68		U
10061-01-5	cis-1,3-Dichloropropene	68		U
10061-02-6	trans-1,3-Dichloropropene	68		U
79-00-5	1,1,2-Trichloroethane	68		U
124-48-1	Dibromochloromethane	68		U
75-25-2	Bromoform	68		U
108-10-1	4-Methyl-2-pentanone	68		U
108-88-3	Toluene	1200		
127-18-4	Tetrachloroethene	68		U
591-78-6	2-Hexanone	68		U
108-90-7	Chlorobenzene	340		
100-41-4	Ethylbenzene	68		U
108383&106423	(m+p) Xylene	120		
1330-20-7	o-Xylene	68		U
100-42-5	Styrene	68		U
79-34-5	1,1,2,2-Tetrachloroethane	68		U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-5(6-8)MSD

Lab Name: CAS-ROC

Contract: IT GROUP

Lab Code: 10145

Case No.: 99-5-159

SAS No.: _____

SDG No.: MW-1

Matrix: (soil/water) SOIL

Lab Sample ID: 292406 5.0MSD

Sample wt/vol: 1.0 (g/ml) G

Lab File ID: Q2056.D

Level: (low/med) LOW

Date Received: 05/12/99

% Moisture: not dec. 26.2

Date Analyzed: 05/18/99

GC Column: HP624 ID: 0.20 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

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

74-87-3	Chloromethane	68	U
75-01-4	Vinyl Chloride	68	U
75-00-3	Chloroethane	650	
74-83-9	Bromomethane	68	U
67-64-1	Acetone	210	
75-35-4	1,1-Dichloroethene	310	
75-09-2	Methylene Chloride	68	
75-15-0	Carbon Disulfide	68	U
75-34-3	1,1-Dichloroethane	66	J
78-93-3	2-Butanone	68	U
540-59-0	1,2-Dichloroethene (total)	68	U
67-66-3	Chloroform	68	U
107-06-2	1,2-Dichloroethane	68	U
71-55-6	1,1,1-Trichloroethane	21	J
56-23-5	Carbon tetrachloride	68	U
71-43-2	Benzene	400	
79-01-6	Trichloroethene	330	
78-87-5	1,2-Dichloropropane	68	U
75-27-4	Bromodichloromethane	68	U
10061-01-5	cis-1,3-Dichloropropene	68	U
10061-02-6	trans-1,3-Dichloropropene	68	U
79-00-5	1,1,2-Trichloroethane	68	U
124-48-1	Dibromochloromethane	68	U
75-25-2	Bromoform	68	U
108-10-1	4-Methyl-2-pentanone	68	U
108-88-3	Toluene	1300	
127-18-4	Tetrachloroethene	68	U
591-78-6	2-Hexanone	68	U
108-90-7	Chlorobenzene	350	
100-41-4	Ethylbenzene	68	U
108383&106423	(m+p) Xylene	160	
1330-20-7	o-Xylene	14	J
100-42-5	Styrene	68	U
79-34-5	1,1,2,2-Tetrachloroethane	68	U

SOIL PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Columbia Analytical Services Contract: IT
 Lab Code: 10145 Case No.: 9905-159 SAS No.: SDG No.: MW-1
 Matrix Spike - EPA Sample No.: PBLK1

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
gamma-BHC (Lindane)	17	0.0	10	59	56-123
Heptachlor	17	0.0	11	65	40-131
Aldrin	17	0.0	10	59	40-120
Dieldrin	33	0.0	26	79	52-126
Endrin	33	0.0	11	33*	56-121
4,4'-DDT	33	0.0	27	82	38-127

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 0 outside limits

Spike Recovery: 1 out of 6 outside limits

COMMENTS:

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK1MS

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 9905-159 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) SOIL Lab Sample ID: 293303

Sample wt/vol: 30 (g/ml) G Lab File ID: DE371.D

% Moisture: 0 decanted: (Y/N) N Date Received: _____

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 05/12/99

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 05/20/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

319-84-6	alpha-BHC	1.7	U
58-89-9	gamma-BHC (Lindane)	10	
76-44-8	Heptachlor	11	
309-00-2	Aldrin	10	
319-85-7	beta-BHC	1.7	U
319-86-8	delta-BHC	1.7	U
1024-57-3	Heptachlor Epoxide	1.7	U
959-98-8	Endosulfan I	1.7	U
5103-74-2	gamma-Chlordane	1.7	U
5103-71-9	alpha-Chlordane	1.7	U
72-55-9	4,4'-DDE	1.9	J
60-57-1	Dieldrin	26	
72-20-8	Endrin	11	
33213-65-9	Endosulfan II	3.3	U
72-54-8	4,4'-DDD	3.3	U
50-29-3	4,4'-DDT	27	
7421-36-3	Endrin Aldehyde	2.7	J
1031-07-8	Endosulfan Sulfate	3.3	U
72-43-5	Methoxychlor	17	U
53494-70-5	Endrin Ketone	12	
12674-11-2	Aroclor-1016	33	U
11104-28-2	Aroclor-1221	67	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	33	U
11096-82-5	Aroclor-1260	33	U
8001-35-2	Toxaphene	170	U

3F
SOIL PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Columbia Analytical Services Contract: IT
 Lab Code: 10145 Case No.: 9905-159 SAS No.: _____ SDG No.: MW-1
 Matrix Spike - EPA Sample No.: PBLK1

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
gamma-BHC (Lindane)	17	0.0	11	65	56-123
Heptachlor	17	0.0	11	65	40-131
Aldrin	17	0.0	11	65	40-120
Dieldrin	33	0.0	26	79	52-126
Endrin	33	0.0	11	33*	56-121
4,4'-DDT	33	0.0	26	79	38-127

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 0 outside limits

Spike Recovery: 1 out of 6 outside limits

COMMENTS: PBKIMSRE This is a re-analysis of PBKIMS to confirm endrin breakdown.

0106

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK1MSRE

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 9905-159 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) SOIL Lab Sample ID: 293303

Sample wt/vol: 30 (g/ml) G Lab File ID: DE398.D

% Moisture: 0 decanted: (Y/N) N Date Received: _____

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 05/12/99

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 05/21/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	1.7	U
58-89-9	gamma-BHC (Lindane)	11	
76-44-8	Heptachlor	11	
309-00-2	Aldrin	11	
319-85-7	beta-BHC	1.7	U
319-86-8	delta-BHC	1.7	U
1024-57-3	Heptachlor Epoxide	1.7	U
959-98-8	Endosulfan I	1.7	U
5103-74-2	gamma-Chlordane	1.7	U
5103-71-9	alpha-Chlordane	1.7	U
72-55-9	4,4'-DDE	1.9	J
60-57-1	Dieldrin	26	
72-20-8	Endrin	11	
33213-65-9	Endosulfan II	3.3	U
72-54-8	4,4'-DDD	3.3	U
50-29-3	4,4'-DDT	26	
7421-36-3	Endrin Aldehyde	1.7	J
1031-07-8	Endosulfan Sulfate	3.3	U
72-43-5	Methoxychlor	17	U
53494-70-5	Endrin Ketone	11	
12674-11-2	Aroclor-1016	33	U
11104-28-2	Aroclor-1221	67	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	33	U
11096-82-5	Aroclor-1260	33	U
8001-35-2	Toxaphene	170	U

3F
SOIL PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Columbia Analytical Services Contract: IT
 Lab Code: 10145 Case No.: 9905-159 SAS No.: _____ SDG No.: MW-1
 Matrix Spike - EPA Sample No.: PBLK2

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
gamma-BHC (Lindane)	17	0.0	9.7	57	56-123
Heptachlor	17	0.0	10	59	40-131
Aldrin	17	0.0	11	65	40-120
Dieldrin	33	0.0	25	76	52-126
Endrin	33	0.0	16	48 *	56-121
4,4'-DDT	33	0.0	25	76	38-127

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 0 outside limits

Spike Recovery: 1 out of 6 outside limits

COMMENTS:

0108

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK2MS

Lab Name: Columbia Analytical Services Contract: IT
 Lab Code: 10145 Case No.: 9905-159 SAS No.: _____ SDG No.: MW-1
 Matrix: (soil/water) SOIL Lab Sample ID: 293305
 Sample wt/vol: 30 (g/ml) G Lab File ID: DE373.D
 % Moisture: 0 decanted: (Y/N) N Date Received: _____
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 05/14/99
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 05/21/99
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) Y pH: _____ Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:

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

319-84-6	alpha-BHC	1.7	U
58-89-9	gamma-BHC (Lindane)	9.7	
76-44-8	Heptachlor	10	
309-00-2	Aldrin	11	
319-85-7	beta-BHC	1.7	U
319-86-8	delta-BHC	1.7	U
1024-57-3	Heptachlor Epoxide	1.7	U
959-98-8	Endosulfan I	1.7	U
5103-74-2	gamma-Chlordane	1.7	U
5103-71-9	alpha-Chlordane	1.7	U
72-55-9	4,4'-DDE	3.3	U
60-57-1	Dieldrin	25	
72-20-8	Endrin	16	
33213-65-9	Endosulfan II	3.3	U
72-54-8	4,4'-DDD	3.3	U
50-29-3	4,4'-DDT	25	
7421-36-3	Endrin Aldehyde	3.2	J
1031-07-8	Endosulfan Sulfate	3.3	U
72-43-5	Methoxychlor	17	U
53494-70-5	Endrin Ketone	7.5	
12674-11-2	Aroclor-1016	33	U
11104-28-2	Aroclor-1221	67	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	33	U
11096-82-5	Aroclor-1260	33	U
8001-35-2	Toxaphene	170	U

SOIL PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Columbia Analytical Services Contract: IT
 Lab Code: 10145 Case No.: 9905-159 SAS No.: SDG No.: MW-1
 Matrix Spike - EPA Sample No.: PBLK2

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
gamma-BHC (Lindane)	17	0.0	11	65	56-123
Heptachlor	17	0.0	12	71	40-131
Aldrin	17	0.0	12	71	40-120
Dieldrin	33	0.0	27	82	52-126
Endrin	33	0.0	17	52*	56-121
4,4'-DDT	33	0.0	26	79	38-127

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 0 outside limits

Spike Recovery: 1 out of 6 outside limits

COMMENTS: PBLK2MSRE This is a Re-analysis of PBLK2MS to confirm endrin breakdown.

0110

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK2MSRE

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 9905-159 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) SOIL Lab Sample ID: 293305

Sample wt/vol: 30 (g/ml) G Lab File ID: DE399.D

% Moisture: 0 decanted: (Y/N) N Date Received: _____

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 05/14/99

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 05/21/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

319-84-6	alpha-BHC	1.7	U
58-89-9	gamma-BHC (Lindane)	11	
76-44-8	Heptachlor	12	
309-00-2	Aldrin	12	
319-85-7	beta-BHC	1.7	U
319-86-8	delta-BHC	1.7	U
1024-57-3	Heptachlor Epoxide	1.7	U
959-98-8	Endosulfan I	1.7	U
5103-74-2	gamma-Chlordane	1.7	U
5103-71-9	alpha-Chlordane	1.7	U
72-55-9	4,4'-DDE	1.9	J
60-57-1	Dieldrin	27	
72-20-8	Endrin	17	
33213-65-9	Endosulfan II	3.3	U
72-54-8	4,4'-DDD	3.3	U
50-29-3	4,4'-DDT	26	
7421-36-3	Endrin Aldehyde	1.4	J
1031-07-8	Endosulfan Sulfate	3.3	U
72-43-5	Methoxychlor	17	U
53494-70-5	Endrin Ketone	7.5	
12674-11-2	Aroclor-1016	33	U
11104-28-2	Aroclor-1221	67	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	33	U
11096-82-5	Aroclor-1260	33	U
8001-35-2	Toxaphene	170	U

INORGANIC CLP

-6-

DUPLICATES

SAMPLE NO.

MW-5(6-8)D

Contract: 9905000159

Lab Code:

Case No.:

SAS No.:

SDG NO.: MW-1

Matrix (soil/water): SOIL/SEDI

Level (low/med): LOW

Solids for Sample: 73.8

% Solids for Duplicate: 73.8

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		4513.6736		2405.4824		57.4	*	P
Antimony		3.2860	B	4.2462	B	29.3		P
Arsenic	2.6	12.4077		16.9586		34.8	*	P
Barium	51.6	149.0444		121.4843		16.5		P
Beryllium		0.4008	B	0.4625	B	18.1		P
Cadmium	1.3	2.2591		1.6994		24.5		P
Calcium		51488.9351		64778.6522		26.7	*	P
Chromium		19.2671		31.9879		53.3	*	P
Cobalt		6.0757	B	4.8580	B	18.4		P
Copper		266.7545		405.9736		45.1	*	P
Iron		23652.3656		40263.2619		55.6	*	P
Lead		658.4997		1132.1073		56.5	*	P
Magnesium	1290.5	29184.7305		3074.8521		160.5		P
Manganese		281.2330		285.1060		5.3		P
Mercury		0.9792		1.2994		24.9	*	CV
Nickel	10.3	11.9955		13.0949		12.6		P
Potassium		565.0809	B	347.3997	B	44.0		P
Selenium		9.9447		12.4376		26.1	*	P
Silver		0.8720	U	0.8388	U			P
Sodium		380.9920	B	371.0590	B	1.2		P
Thallium		1.4221	U	1.3679	U			P
Vanadium	12.9	17.6934		17.0198		0.0		P
Zinc		1661.9711		928.6360		53.0	*	P

0112

INORGANIC CLP

-5A-

SPIKE SAMPLE RECOVERY

SAMPLE NO.

MW-5(6-8)S

Contract: 9905000159

Lab Code:

Case No.:

SAS No.:

SDG NO.: MW-1

Matrix (soil/water): SOIL/SEDI

Level (low/med): LOW

Solids for Sample: 73.8

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum		3887.4283		4513.6736		501.86	-124.8		P
Antimony	75 - 125	55.8117		3.2860	B	125.46	41.9	N	P
Arsenic	75 - 125	35.4546		12.4077		10.04	229.6	N	P
Barium	75 - 125	644.6514		149.0444		501.86	98.8		P
Beryllium	75 - 125	12.4016		0.4008	B	12.55	95.7		P
Cadmium	75 - 125	13.8910		2.2591		12.55	92.7		P
Calcium		13667.5833		51488.9351		501.86	-7536.3		P
Chromium	75 - 125	84.2491		19.2671		50.19	129.5	N	P
Cobalt	75 - 125	131.4789		6.0757	B	125.46	100.0		P
Copper		870.4281		266.7545		62.73	962.3		P
Iron		62631.7353		23652.3656		250.93	15534.1		P
Lead		1594.3342		658.4997		125.46	745.9		P
Magnesium		1558.0150		29184.7305		501.86	-5504.9		P
Manganese	75 - 125	621.7651		281.2330		125.46	271.4	N	P
Mercury		1.0997		0.9792		0.22	56.0		CV
Nickel	75 - 125	136.6837		11.9955		125.46	99.4		P
Potassium	75 - 125	5214.2927		565.0809	B	5018.57	92.6		P
Selenium	75 - 125	17.2382		9.9447		2.51	290.7	N	P
Silver	75 - 125	13.2239		0.8720	U	12.55	105.4		P
Sodium	75 - 125	4399.6810		380.9920	B	5018.57	80.1		P
Thallium	75 - 125	486.4214		1.4221	U	501.86	96.9		P
Vanadium	75 - 125	144.3042		17.6934		125.46	100.9		P
Zinc		2556.9607		1661.9711		125.46	713.3		P

Comments:

0113

INORGANIC CLP

-5B-

POST DIGEST SPIKE SAMPLE RECOVERY

SAMPLE NO.

MW-5(6-8)A

Contract: 9905000159

Lab Code:

Case No.:

SAS No.:

SDG NO.: MW-1

Matrix (soil/water): WATER

Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum		18603.93		16822.01		2000.0	89.1		P
Antimony		480.37		12.25	B	500.0	93.6		P
Arsenic		82.80		46.24		40.0	91.4		P
Barium		2524.63		555.47		2000.0	98.5		P
Beryllium		51.35		1.49	B	50.0	99.7		P
Cadmium		52.31		8.42		50.0	87.8		P
Calcium		188843.84		191894.11		2000.0	-152.5		P
Chromium		261.54		71.81		200.0	94.9		P
Cobalt		512.01		22.64	B	500.0	97.9		P
Copper		1215.02		994.17		250.0	88.3		P
Iron		9644.00		8815.00		1000.0	82.9		P
Lead		2805.09		2454.16		500.0	70.2		P
Magnesium		106797.06		108768.57		2000.0	-98.6		P
Manganese		1502.79		1048.13		500.0	90.9		P
Nickel		519.82		44.71		500.0	95.0		P
Potassium		23280.00		2106.00	B	20000.0	105.9		P
Selenium		46.58		37.06		10.0	95.1		P
Silver		57.40		0.80	U	50.0	114.8		P
Sodium		20109.80		1419.92	B	20000.0	93.4		P
Thallium		2016.02		-25.40	U	2000.0	100.8		P
Vanadium		566.74		65.94		500.0	100.2		P
Zinc		6863.00		6194.00		500.0	133.8		P

Comments:

0114

COLUMBIA ANALYTICAL SERVICES

INORGANIC QUALITY CONTROL SUMMARY

Report Date : 06/15/99
CAS Order # : 292406 - MW-5(6'-8)
Client : IT Corporation
PIERCE & STEVENS, INC
Reported Units: %
Run # : 38273

PRECISION

ORIGINAL	DUPLICATE	RPD
73.8	74.4	1

PERCENT SOLIDS

0115

COLUMBIA ANALYTICAL SERVICES

INORGANIC QUALITY CONTROL SUMMARY

Report Date : 06/15/99
CAS Order # : 292406 - MW-5(6'-8)
Client : IT Corporation
 PIERCE & STEVENS, INC
Reported Units: MG/KG
Run # : 38258
Percent Solid : 73.8

PRECISION

ACCURACY

ORIGINAL	DUPLICATE	RPD	FOUND	ADDED	% REC.	LIMITS
0.678 U	0.678 U	NC	3.12	6.45	48	70 - 130

TOTAL CYANIDE

0116

COLUMBIA ANALYTICAL SERVICES

INORGANIC BLANK SPIKE SUMMARY

CAS Submission #: 9905000159

Client: IT Corporation
PIERCE & STEVENS, INC

BLANK SPIKES

BLANK	FOUND	ADDED	% REC	LIMITS	RUN	UNITS
0.500 U	4.94	5.00	99	38 - 189	38258	MG/KG

TOTAL CYANIDE

0117

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK01

Lab Name: CAS-ROC Contract: IT GROUP

Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1

Lab File ID: Q2050.D Lab Sample ID: VBLK01

Date Analyzed: 05/18/99 Time Analyzed: 13:02

GC Column: HP624 ID: 0.2 (mm) Heated Purge: (Y/N) Y

Instrument ID: GCMS#6

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VBLK01MS	VBLK01MS	Q2051.D	13:37
02	MW-5(6-8)	292406 5.0	Q2054.D	15:15
03	MW-5(6-8)MS	292406 5.0MS	Q2055.D	15:53
04	MW-5(6-8)MSD	292406 5.0MSD	Q2056.D	16:33
05	MW-5(6-8)DUP	292407 5.0	Q2057.D	17:10
06	MW-2	291632 1.0	Q2058.D	17:54
07	MW-3	291633 1.0	Q2059.D	18:22
08	MW-4(0-8)	292408 1.0	Q2060.D	18:49

COMMENTS

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBK01

Lab Name: CAS-ROC Contract: IT GROUP

Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) SOIL Lab Sample ID: VBK01

Sample wt/vol: 5.0 (g/ml) G Lab File ID: Q2050.D

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

% Moisture: not dec. 0 Date Analyzed: 05/18/99

GC Column: HP624 ID: 0.20 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
74-87-3	Chloromethane		10	U
75-01-4	Vinyl Chloride		10	U
75-00-3	Chloroethane		10	U
74-83-9	Bromomethane		10	U
67-64-1	Acetone		10	U
75-35-4	1,1-Dichloroethene		10	U
75-09-2	Methylene Chloride		10	U
75-15-0	Carbon Disulfide		10	U
75-34-3	1,1-Dichloroethane		10	U
78-93-3	2-Butanone		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
71-55-6	1,1,1-Trichloroethane		10	U
56-23-5	Carbon tetrachloride		10	U
71-43-2	Benzene		10	U
79-01-6	Trichloroethene		10	U
78-87-5	1,2-Dichloropropane		10	U
75-27-4	Bromodichloromethane		10	U
10061-01-5	cis-1,3-Dichloropropene		10	U
10061-02-6	trans-1,3-Dichloropropene		10	U
79-00-5	1,1,2-Trichloroethane		10	U
124-48-1	Dibromochloromethane		10	U
75-25-2	Bromoform		10	U
108-10-1	4-Methyl-2-pentanone		10	U
108-88-3	Toluene		10	U
127-18-4	Tetrachloroethene		10	U
591-78-6	2-Hexanone		10	U
108-90-7	Chlorobenzene		10	U
100-41-4	Ethylbenzene		10	U
108383&106423	(m+p) Xylene		10	U
1330-20-7	o-Xylene		10	U
100-42-5	Styrene		10	U
79-34-5	1,1,2,2-Tetrachloroethane		10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK01

Lab Name: CAS-ROC Contract: IT GROUP
Lab Code: 10145 Case No.: 99-5-159 SAS No.: SOG No.: MW-1
Matrix: (soil/water) SOIL Lab Sample ID: VBLK01
Sample wt/vol: 5.0 (g/ml) G Lab File ID: Q2050.D
Level: (low/med) LOW Date Received:
% Moisture: not dec. 0 Date Analyzed: 05/18/99
GC Column: HP624 ID: 0.20 (mm) Dilution Factor: 1.0
Soil Extract Volume: 1 (uL) Soil Aliquot Volume: 1 (uL)

CONCENTRATION UNITS:

Number TICs found: 2 (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown hydrocarbon	3.08	7	J
2. 000109-99-9	Furan, tetrahydro-	7.02	6	JN

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBK02

Lab Name: CAS\ROC Contract: IT GROUP
 Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1
 Lab File ID: Y2078.D Lab Sample ID: vbk
 Date Analyzed: 05/18/99 Time Analyzed: 17:58
 GC Column: DB624 ID: 0.32 (mm) Heated Purge: (Y/N) N
 Instrument ID: GCMS#3

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01:	VBK02MS	VBKMS	Y2080.D	18:55
02:	MW-1	291631 125	Y2081.D	19:22
03:	MW-1MS	291631 125MS	Y2082.D	19:49
04:	MW-1MSD	291631 125MSD	Y2083.D	20:16

COMMENTS:

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK02

Lab Name: CAS\ROC Contract: IT GROUP
 Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1
 Matrix: (soil/water) SOIL Lab Sample ID: vblk
 Sample wt/vol: 4.0 (g/ml) G Lab File ID: Y2078.D
 Level: (low/med) MED Date Received: _____
 % Moisture: not dec. 0 Date Analyzed: 05/18/99
 GC Column: DB624 ID: 0.32 (mm) Dilution Factor: 1.0
 Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
74-87-3	Chloromethane		1200	U
75-01-4	Vinyl chloride		1200	U
75-00-3	Chloroethane		1200	U
74-83-9	Bromomethane		1200	U
67-64-1	Acetone		1200	U
75-35-4	1,1-Dichloroethene		1200	U
75-09-2	Methylene chloride		1200	U
75-15-0	Carbon disulfide		1200	U
75-34-3	1,1-Dichloroethane		1200	U
78-93-3	2-Butanone		1200	U
540-59-0	1,2-Dichloroethene (total)		1200	U
67-66-3	Chloroform		1200	U
107-06-2	1,2-Dichloroethane		1200	U
71-55-6	1,1,1-Trichloroethane		1200	U
56-23-5	Carbon tetrachloride		1200	U
71-43-2	Benzene		1200	U
79-01-6	Trichloroethene		1200	U
78-87-5	1,2-Dichloropropane		1200	U
75-27-4	Bromodichloromethane		1200	U
10061-01-5	cis-1,3-Dichloropropene		1200	U
10061-02-6	trans-1,3-Dichloropropene		1200	U
79-00-5	1,1,2-Trichloroethane		1200	U
124-48-1	Dibromochloromethane		1200	U
75-25-2	Bromoform		1200	U
108-10-1	4-Methyl-2-pentanone		1200	U
108-88-3	Toluene		1200	U
591-78-6	2-Hexanone		1200	U
127-18-4	Tetrachloroethene		1200	U
108-90-7	Chlorobenzene		1200	U
100-41-4	Ethylbenzene		1200	U
1330-20-7	o-Xylene		1200	U
100-42-5	Styrene		1200	U
108-88-3	1,1,2,2-Tetrachloroethane		1200	U
108383& 106423	(m+p) Xylene		1200	U

012295-1 ASP
3/80

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK02

Lab Name: CASI/ROC Contract: IT GROUP
Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1
Matrix: (soil/water) SOIL Lab Sample ID: vblk
Sample wt/vol: 4.0 (g/ml) G Lab File ID: Y2078.D
Level: (low/med) MED Date Received: _____
% Moisture: not dec. 0 Date Analyzed: 05/18/99
GC Column: DB624 ID: 0.32 (mm) Dilution Factor: 1.0
Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

CONCENTRATION UNITS:

Number TICs found: 0 (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	RT	EST. CONC.	Q
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4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBK03

Lab Name: CAS-ROC Contract: IT GROUP
Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1
Lab File ID: Q2081.D Lab Sample ID: VBK03
Date Analyzed: 05/19/99 Time Analyzed: 11:44
GC Column: HP624 ID: 0.2 (mm) Heated Purge: (Y/N) N
Instrument ID: GCMS#6

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	MW-2RE	291632 1.0	Q2082.D	12:27
02	MW-4(0-8)RE	292408 1.0	Q2084.D	13:47
03	COOLER BLANK	291634 1.0	Q2085.D	14:15

COMMENTS

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK03

Lab Name: CAS-ROC Contract: IT GROUP

Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) SOIL Lab Sample ID: VBLK03

Sample wt/vol: 5.0 (g/ml) G Lab File ID: Q2081.D

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

% Moisture: not dec. 0 Date Analyzed: 05/19/99

GC Column: HP624 ID: 0.20 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
74-87-3	Chloromethane		10	U
75-01-4	Vinyl Chloride		10	U
75-00-3	Chloroethane		10	U
74-83-9	Bromomethane		10	U
67-64-1	Acetone		10	U
75-35-4	1,1-Dichloroethene		10	U
75-09-2	Methylene Chloride		10	U
75-15-0	Carbon Disulfide		10	U
75-34-3	1,1-Dichloroethane		10	U
78-93-3	2-Butanone		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
71-55-6	1,1,1-Trichloroethane		10	U
56-23-5	Carbon tetrachloride		10	U
71-43-2	Benzene		10	U
79-01-6	Trichloroethene		10	U
78-87-5	1,2-Dichloropropane		10	U
75-27-4	Bromodichloromethane		10	U
10061-01-5	cis-1,3-Dichloropropene		10	U
10061-02-6	trans-1,3-Dichloropropene		10	U
79-00-5	1,1,2-Trichloroethane		10	U
124-48-1	Dibromochloromethane		10	U
75-25-2	Bromoform		10	U
108-10-1	4-Methyl-2-pentanone		10	U
108-88-3	Toluene		10	U
127-18-4	Tetrachloroethene		10	U
591-78-6	2-Hexanone		10	U
108-90-7	Chlorobenzene		10	U
100-41-4	Ethylbenzene		10	U
108383&106423	(m+p) Xylene		10	U
1330-20-7	o-Xylene		10	U
100-42-5	Styrene		10	U
79-34-5	1,1,2,2-Tetrachloroethane		10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBK03

Lab Name: CAS-ROC Contract: IT GROUP
Lab Code: 10145 Case No.: 99-5-159 SAS No.: SDG No.: MW-1
Matrix: (soil/water) SOIL Lab Sample ID: VBK03
Sample wt/vol: 5.0 (g/ml) G Lab File ID: Q2081.D
Level: (low/med) LOW Date Received:
% Moisture: not dec. 0 Date Analyzed: 05/19/99
GC Column: HP624 ID: 0.20 (mm) Dilution Factor: 1.0
Soil Extract Volume: 1 (uL) Soil Aliquot Volume: 1 (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Number TICs found: 1

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown hydrocarbon	3.10	5	J

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBK04

Lab Name: CASIROC Contract: IT GROUP
Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1
Lab File ID: Y2118.D Lab Sample ID: VBK04
Date Analyzed: 05/21/99 Time Analyzed: 17:33
GC Column: DB624 ID: 0.32 (mm) Heated Purge: (Y/N) N
Instrument ID: GCMS#3

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	MW-1DL	291631 500	Y2124.D	20:28

COMMENTS:

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK04

Lab Name: CASIROC Contract: IT GROUP

Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) SOIL Lab Sample ID: VBLK04

Sample wt/vol: 4.0 (g/ml) G Lab File ID: Y2118.D

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

% Moisture: not dec. 0 Date Analyzed: 05/21/99

GC Column: DB624 ID: 0.32 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
74-87-3	Chloromethane		1200	U
75-01-4	Vinyl chloride		1200	U
74-83-9	Bromomethane		1200	U
75-00-3	Chloroethane		1200	U
75-35-4	1,1-Dichloroethene		1200	U
67-64-1	Acetone		1200	U
75-15-0	Carbon disulfide		1200	U
75-09-2	Methylene chloride		1200	U
75-34-3	1,1-Dichloroethane		1200	U
78-93-3	2-Butanone		1200	U
540-59-0	1,2-Dichloroethene (total)		1200	U
67-66-3	Chloroform		1200	U
107-06-2	1,2-Dichloroethane		1200	U
71-55-6	1,1,1-Trichloroethane		1200	U
56-23-5	Carbon tetrachloride		1200	U
71-43-2	Benzene		1200	U
79-01-6	Trichloroethene		1200	U
78-87-5	1,2-Dichloropropane		1200	U
75-27-4	Bromodichloromethane		1200	U
10061-01-5	cis-1,3-Dichloropropene		1200	U
10061-02-6	trans-1,3-Dichloropropene		1200	U
79-00-5	1,1,2-Trichloroethane		1200	U
124-48-1	Dibromochloromethane		1200	U
75-25-2	Bromoform		1200	U
108-10-1	4-Methyl-2-pentanone		1200	U
108-88-3	Toluene		1200	U
127-18-4	Tetrachloroethene		1200	U
591-78-6	2-Hexanone		1200	U
108-90-7	Chlorobenzene		1200	U
100-41-4	Ethylbenzene		1200	U
108383& 106423	(m+p) Xylene		1200	U
1330-20-7	o-Xylene		1200	U
100-42-5	Styrene		1200	U
108-88-3	1,1,2,2-Tetrachloroethane		1200	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBK04

Lab Name: CASIROC Contract: IT GROUP
Lab Code: 10145 Case No.: 99-5-159 SAS No.: SDG No.: MW-1
Matrix: (soil/water) SOIL Lab Sample ID: VBK04
Sample wt/vol: 4.0 (g/ml) G Lab File ID: Y2118.D
Level: (low/med) MED Date Received:
% Moisture: not dec. 0 Date Analyzed: 05/21/99
GC Column: DB624 ID: 0.32 (mm) Dilution Factor: 1.0
Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

CONCENTRATION UNITS:

Number TICs found: 0 (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	RT	EST. CONC.	Q
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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CAS-ROC Contract: IT GROUP
 Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1
 Lab File ID (Standard): Q2047.D Date Analyzed: 05/18/99
 Instrument ID: GCMS#6 Time Analyzed: 11:27
 GC Column: HP624 ID: 0.20 (mm) Heated Purge: (Y/N) Y

	IS1		IS2		IS3	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	2377321	6.91	14672462	8.59	13269272	13.36
UPPER LIMIT	4754642	7.41	29344924	9.09	26538544	13.86
LOWER LIMIT	1188661	6.41	7336231	8.09	6634636	12.86
EPA SAMPLE NO.						
01. VBLK01	2134778	6.91	13268355	8.59	11677143	13.36
02. VBLK01MS	2275329	6.91	14582317	8.59	12912729	13.36
03. MW-5(6-8)	2178748	6.91	14194569	8.59	12207986	13.36
04. MW-5(6-8)MS	2483326	6.92	15804195	8.61	12530873	13.37
05. MW-5(6-8)MSD	2698939	6.92	16150325	8.60	11687318	13.37
06. MW-5(6-8)DUP	2843224	6.93	17780612	8.61	13547631	13.37
07. MW-2	2734110	6.91	16621055	8.60	11271610	13.37
08. MW-3	2249424	6.91	13001766	8.60	9413635	13.37
09. MW-4(0-8)	1735925	6.92	8774592	8.60	5028688 *	13.37

IS1 = Bromochloromethane
 IS2 = 1,4-Difluorobenzene
 IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.

* Values outside of contract required QC limits

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CASIROC Contract: IT GROUP
 Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1
 Lab File ID (Standard): Y2074.D Date Analyzed: 05/18/99
 Instrument ID: GCMS#3 Time Analyzed: 16:04
 GC Column: DB624 ID: 0.32 (mm) Heated Purge: (Y/N) N

	IS1		IS2		IS3	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	47830	6.52	285873	7.70	300362	12.21
UPPER LIMIT	95660	6.02	571746	7.20	600724	11.71
LOWER LIMIT	23915	7.02	142937	8.20	150181	12.71
EPA SAMPLE NO.						
01 VBLK02	38546	6.52	260311	7.70	283364	12.21
02 VBLK02MS	27832	6.52	207496	7.70	240723	12.21
03 MW-1	26560	6.53	155005	7.71	230135	12.23
04 MW-1MS	24970	6.52	145878	7.70	218718	12.21
05 MW-1MSD	25838	6.52	186024	7.70	222048	12.21

IS1 = Bromochloromethane
 IS2 = 1,4-Difluorobenzene
 IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
 AREA LOWER LIMIT = - 50% of internal standard area
 RT UPPER LIMIT = +0.50 minutes of internal standard RT
 RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
 * Values outside of contract required QC limits

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CAS-ROC Contract: IT GROUP
 Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1
 Lab File ID (Standard): Q2080.D Date Analyzed: 05/19/99
 Instrument ID: GCMS#6 Time Analyzed: 11:09
 GC Column: HP624 ID: 0.20 (mm) Heated Purge: (Y/N) Y

	IS1		IS2		IS3	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	2519690	6.91	16083954	8.59	14649226	13.37
UPPER LIMIT	5039380	7.41	32167908	9.09	29298452	13.87
LOWER LIMIT	1259845	6.41	8041977	8.09	7324613	12.87
EPA SAMPLE NO.						
01 VBLK03	2398150	6.92	15160078	8.60	13108126	13.36
02 MW-2RE	1673674	6.91	10555720	8.60	7072763 *	13.36
03 MW-4(0-8)RE	1660748	6.91	9365549	8.59	5999876 *	13.36
04 COOLER BLANK	2232984	6.92	13800403	8.60	12308246	13.37

MW-2RE

IS1 = Bromochloromethane
 IS2 = 1,4-Difluorobenzene
 IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.

* Values outside of contract required QC limits

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CASIROC Contract: IT GROUP
 Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1
 Lab File ID (Standard): Y2114.D Date Analyzed: 05/21/99
 Instrument ID: GCMS#3 Time Analyzed: 15:37
 GC Column: DB624 ID: 0.32 (mm). Heated Purge: (Y/N) N

	IS1		IS2		IS3	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	105677	6.51	598693	7.69	627827	12.19
UPPER LIMIT	211354	6.01	1197386	7.19	1255654	11.69
LOWER LIMIT	52839	7.01	299347	8.19	313914	12.69
EPA SAMPLE						
NO.						
01 VBLK04	85774	6.51	493412	7.70	582994	12.20
02 MW-1DL	85899	6.50	497674	7.69	571968	12.19

IS1 = Bromochloromethane
 IS2 = 1,4-Difluorobenzene
 IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
 AREA LOWER LIMIT = - 50% of internal standard area
 RT UPPER LIMIT = +0.50 minutes of internal standard RT
 RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
 * Values outside of contract required QC limits

P
95-1

SEMIVOLATILE METHOD BLANK SUMMARY

SBLK1

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1

Lab File ID: AB548.D Lab Sample ID: 293602

Instrument ID: 5973-A Date Extracted: 5/12/99

Matrix: (soil/water) SOIL Date Analyzed: 5/19/99

Level: (low/med) LOW Time Analyzed: 18:30

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	SBLK1MS	293603	AB549.D	5/19/99
02	MW-1	291631	AB557.D	5/20/99
03	MW-2	291632	AB558.D	5/20/99
04	MW-3	291633 1/10	AB559.D	5/20/99

COMMENTS:

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SBLK1

Lab Name: Columbia Analytical Services Contract: ITLab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1Matrix: (soil/water) SOILLab Sample ID: 293602Sample wt/vol: 30 (g/ml) GLab File ID: AB548.DLevel: (low/med) LOW

Date Received: _____

% Moisture: 0 decanted: (Y/N) NDate Extracted: 5/12/99Concentrated Extract Volume: 500 (uL)Date Analyzed: 5/19/99Injection Volume: 2.0 (uL)Dilution Factor: 1.0GPC Cleanup: (Y/N) Y pH: _____

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
108-95-2	Phenol	330	U	
111-44-4	bis(-2-Chloroethyl)Ether	330	U	
95-57-8	2-Chlorophenol	330	U	
541-73-1	1,3-Dichlorobenzene	330	U	
106-46-7	1,4-Dichlorobenzene	330	U	
95-50-1	1,2-Dichlorobenzene	330	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	330	U	
95-48-7	2-Methylphenol	330	U	
621-24-7	N-Nitroso-Di-n-propylamine	330	U	
67-72-1	Hexachloroethane	330	U	
106-44-5	4-Methylphenol	330	U	
98-95-3	Nitrobenzene	330	U	
78-59-1	Isophorone	330	U	
88-75-5	2-Nitrophenol	330	U	
105-67-9	2,4-Dimethylphenol	330	U	
111-91-1	bis(-2-Chloroethoxy)Methane	330	U	
120-83-2	2,4-Dichlorophenol	330	U	
120-82-1	1,2,4-Trichlorobenzene	330	U	
91-20-3	Naphthalene	330	U	
106-47-8	4-Chloroaniline	330	U	
87-68-3	Hexachlorobutadiene	330	U	
59-50-7	4-Chloro-3-methylphenol	330	U	
91-57-6	2-Methylnaphthalene	330	U	
77-47-4	Hexachlorocyclopentadiene	330	U	
88-06-2	2,4,6-Trichlorophenol	330	U	
95-95-4	2,4,5-Trichlorophenol	830	U	
91-58-7	2-Chloronaphthalene	330	U	
88-74-4	2-Nitroaniline	830	U	
208-96-8	Acenaphthylene	330	U	
131-11-3	Dimethyl Phthalate	330	U	
606-20-2	2,6-Dinitrotoluene	330	U	
83-32-9	Acenaphthene	330	U	
99-09-2	3-Nitroaniline	830	U	
51-28-5	2,4-Dinitrophenol	830	U	
132-64-9	Dibenzofuran	330	U	
121-14-2	2,4-Dinitrotoluene	330	U	
100-02-7	4-Nitrophenol	830	U	

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SBLK1

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) SOIL Lab Sample ID: 293602

Sample wt/vol: 30 (g/ml) G Lab File ID: AB548.D

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

% Moisture: 0 decanted: (Y/N) N Date Extracted: 5/12/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 5/19/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
86-73-7	Fluorene		330	U
7005-72-3	4-Chlorophenyl-phenylether		330	U
84-66-2	Diethylphthalate		330	U
100-01-6	4-Nitroaniline		830	U
534-52-1	4,6-Dinitro-2-methylphenol		830	U
86-30-6	N-Nitrosodiphenylamine		330	U
101-55-3	4-Bromophenyl-phenylether		330	U
118-74-1	Hexachlorobenzene		330	U
87-86-5	Pentachlorophenol		830	U
85-01-8	Phenanthrene		330	U
120-12-7	Anthracene		330	U
86-74-8	Carbazole		330	U
84-74-2	Di-n-Butylphthalate		330	U
206-44-0	Fluoranthene		330	U
129-00-0	Pyrene		330	U
85-68-7	Butyl benzyl phthalate		330	U
91-94-1	3,3'-Dichlorobenzidine		330	U
56-55-3	Benzo(a)Anthracene		330	U
218-01-9	Chrysene		330	U
117-81-7	Bis(2-Ethylhexyl)Phthalate		49	J
117-84-0	Di-n-octyl phthalate		330	U
205-99-2	Benzo(b)fluoranthene		330	U
207-08-9	Benzo(k)Fluoranthene		330	U
50-32-8	Benzo(a)Pyrene		330	U
193-39-5	Indeno(1,2,3-cd)Pyrene		330	U
53-70-3	Dibenz(a,h)anthracene		330	U
191-24-2	Benzo(g,h,i)Perylene		330	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK1

Lab Name: Columbia Analytical Services Contract: IT
Lab Code: 10145 Case No.: 99-5-159 SAS No.: SDG No.: MW-1
Matrix: (soil/water) SOIL Lab Sample ID: 293602
Sample wt/vol: 30 (g/ml) G Lab File ID: AB548.D
Level: (low/med) LOW Date Received:
% Moisture: 0 decanted: (Y/N) N Date Extracted: 5/12/99
Concentrated Extract Volume: 500 (uL) Date Analyzed: 5/19/99
Injection Volume: 2.0 (uL) Dilution Factor: 1.0
GPC Cleanup: (Y/N) Y pH:

CONCENTRATION UNITS:

Number TICs found: 4 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	4.55	100	J
2.	unknown	4.95	130	JA
3. 004436-75-3	3-Hexene-2,5-dione	5.07	340	JNA
4. 000541-02-6	Cyclopentasiloxane, decamethyl-	6.96	130	JN

SEMIVOLATILE METHOD BLANK SUMMARY

SBLK2

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1

Lab File ID: AB563.D Lab Sample ID: 293604

Instrument ID: 5973-A Date Extracted: 5/14/99

Matrix: (soil/**water**) SOIL Date Analyzed: 5/20/99

Level: (low/med) LOW Time Analyzed: 13:00

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	SBLK2MS	293605	AB551.D	5/19/99
02	MW-5	292406	AB552.D	5/19/99
03	MW-5MS	293606	AB553.D	5/19/99
04	MW-5MSD	293607	AB554.D	5/19/99
05	MW-5DUP	292407	AB555.D	5/19/99
06	MW-4	292408	AB556.D	5/19/99
07	MW-4DL	292408 1/2	AB564.D	5/20/99

COMMENTS:

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SBLK2

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) SOIL Lab Sample ID: 293604

Sample wt/vol: 30 (g/ml) G Lab File ID: AB563.D

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

% Moisture: 0 decanted: (Y/N) N Date Extracted: 5/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 5/20/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
108-95-2	Phenol	330	U	
111-44-4	bis(-2-Chloroethyl)Ether	330	U	
95-57-8	2-Chlorophenol	330	U	
541-73-1	1,3-Dichlorobenzene	330	U	
106-46-7	1,4-Dichlorobenzene	330	U	
95-50-1	1,2-Dichlorobenzene	330	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	330	U	
95-48-7	2-Methylphenol	330	U	
621-24-7	N-Nitroso-Di-n-propylamine	330	U	
67-72-1	Hexachloroethane	330	U	
106-44-5	4-Methylphenol	330	U	
98-95-3	Nitrobenzene	330	U	
78-59-1	Isophorone	330	U	
88-75-5	2-Nitrophenol	330	U	
105-67-9	2,4-Dimethylphenol	330	U	
111-91-1	bis(-2-Chloroethoxy)Methane	330	U	
120-83-2	2,4-Dichlorophenol	330	U	
120-82-1	1,2,4-Trichlorobenzene	330	U	
91-20-3	Naphthalene	330	U	
106-47-8	4-Chloroaniline	330	U	
87-68-3	Hexachlorobutadiene	330	U	
59-50-7	4-Chloro-3-methylphenol	330	U	
91-57-6	2-Methylnaphthalene	330	U	
77-47-4	Hexachlorocyclopentadiene	330	U	
88-06-2	2,4,6-Trichlorophenol	330	U	
95-95-4	2,4,5-Trichlorophenol	830	U	
91-58-7	2-Chloronaphthalene	330	U	
88-74-4	2-Nitroaniline	830	U	
208-96-8	Acenaphthylene	330	U	
131-11-3	Dimethyl Phthalate	330	U	
606-20-2	2,6-Dinitrotoluene	330	U	
83-32-9	Acenaphthene	330	U	
99-09-2	3-Nitroaniline	830	U	
51-28-5	2,4-Dinitrophenol	830	U	
132-64-9	Dibenzofuran	330	U	
121-14-2	2,4-Dinitrotoluene	330	U	
100-02-7	4-Nitrophenol	830	U	

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SBLK2

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) SOIL Lab Sample ID: 293604

Sample wt/vol: 30 (g/ml) G Lab File ID: AB563.D

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

% Moisture: 0 decanted: (Y/N) N Date Extracted: 5/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 5/20/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
86-73-7	Fluorene		330	U
7005-72-3	4-Chlorophenyl-phenylether		330	U
84-66-2	Diethylphthalate		330	U
100-01-6	4-Nitroaniline		830	U
534-52-1	4,6-Dinitro-2-methylphenol		830	U
86-30-6	N-Nitrosodiphenylamine		330	U
101-55-3	4-Bromophenyl-phenylether		330	U
118-74-1	Hexachlorobenzene		330	U
87-86-5	Pentachlorophenol		830	U
85-01-8	Phenanthrene		330	U
120-12-7	Anthracene		330	U
86-74-8	Carbazole		330	U
84-74-2	Di-n-Butylphthalate		330	U
206-44-0	Fluoranthene		330	U
129-00-0	Pyrene		330	U
85-68-7	Butyl benzyl phthalate		330	U
91-94-1	3,3'-Dichlorobenzidine		330	U
56-55-3	Benzo(a)Anthracene		330	U
218-01-9	Chrysene		330	U
117-81-7	Bis(2-Ethylhexyl)Phthalate		58	J
117-84-0	Di-n-octyl phthalate		330	U
205-99-2	Benzo(b)fluoranthene		330	U
207-08-9	Benzo(k)Fluoranthene		330	U
50-32-8	Benzo(a)Pyrene		330	U
193-39-5	Indeno(1,2,3-cd)Pyrene		330	U
53-70-3	Dibenz(a,h)anthracene		330	U
191-24-2	Benzo(g,h,i)Perylene		330	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK2

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) SOIL Lab Sample ID: 293604

Sample wt/vol: 30 (g/ml) G Lab File ID: AB563.D

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

% Moisture: 0 decanted: (Y/N) N Date Extracted: 5/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 5/20/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	4.54	85	J
2.	unknown	4.94	120	JA
3. 004436-75-3	3-Hexene-2,5-dione	5.06	320	JN A
4. 000541-02-6	Cyclopentasiloxane, decamethyl-	6.95	130	JN
5.	unknown	21.46	110	J

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Columbia Analytical Services Contract: IT
 Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1
 Lab File ID (Standard): AB545.D Date Analyzed: 5/19/99
 Instrument ID: 5973-A Time Analyzed: 16:32

		IS1(DCB)		IS2(NPT)		IS3(ANT)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD		98699	5.74	340154	7.64	150113	10.89
UPPER LIMIT		197398	6.24	680308	8.14	300226	11.39
LOWER LIMIT		49350	5.24	170077	7.14	75057	10.39
EPA SAMPLE NO.							
01	SBLK1	136881	5.76	492850	7.66	211727	10.92
02	SBLK1MS	135723	5.74	480280	7.64	203683	10.89
03	SBLK2MS	153971	5.76	582731	7.66	258129	10.92
04	MW-5	89930	5.74	298901	7.64	127008	10.89
05	MW-5MS	81482	5.76	265782	7.66	115294	10.92
06	MW-5MSD	70720	5.76	242209	7.66	112993	10.92
07	MW-5DUP	73323	5.76	251075	7.66	116316	10.92
08	MW-4	74948	5.75	256812	7.65	116234	10.91
09	MW-1	63375	5.75	229553	7.65	108555	10.91
10	MW-2	64777	5.75	222567	7.65	105658	10.91
11	MW-3	52179	5.77	197635	7.67	103464	10.93

IS1 (DCB) = d4-1,4-Dichlorobenzene
 IS2 (NPT) = d8-Naphthalene
 IS3 (ANT) = d10-Acenaphthene
 IS4 (PHN) = d10-Phenanthrene
 IS5 (CRY) = d12-Chrysene
 IS6 (PRY) = d12-Perylene

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.

* Values outside of contract required QC limits

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Columbia Analytical Services Contract: IT
 Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1
 Lab File ID (Standard): AB545.D Date Analyzed: 05/19/99
 Instrument ID: 5973-A Time Analyzed: 16:32

		IS4(PHN)		IS5(CRY)		IS6(PRY)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	213289	13.99	185493	19.82	171012	23.37
	UPPER LIMIT	426578	13.49	370986	19.32	342024	22.87
	LOWER LIMIT	106645	14.49	92747	20.32	85506	23.87
	EPA SAMPLE NO.						
01	SBLK1	249344	14.01	146455	19.84	122960	23.41
02	SBLK1MS	254134	13.99	158373	19.81	133189	23.37
03	SBLK2MS	304570	14.01	146913	19.83	116210	23.41
04	MW-5	172993	13.99	163145	19.81	264424	23.39
05	MW-5MS	162248	14.01	174702	19.85	265581	23.44
06	MW-5MSD	173897	14.03	226402	19.86	322961	23.47
07	MW-5DUP	181217	14.02	224901	19.86	341808	23.45
08	MW-4	177194	14.01	208951	19.85	300896	23.44
09	MW-1	172571	14.01	192315	19.85	272608	23.44
10	MW-2	169517	14.00	201098	19.83	292438	23.42
11	MW-3	167823	14.03	179050	19.86	264351	23.46

IS1 (DCB) = d4-1,4-Dichlorobenzene
 IS2 (NPT) = d8-Naphthalene
 IS3 (ANT) = d10-Acenaphthene
 IS4 (PHN) = d10-Phenanthrene
 IS5 (CRY) = d12-Chrysene
 IS6 (PRY) = d12-Perylene

AREA UPPER LIMIT = +100% of internal standard area
 AREA LOWER LIMIT = - 50% of internal standard area
 RT UPPER LIMIT = +0.50 minutes of internal standard RT
 RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.

* Values outside of contract required QC limits

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Columbia Analytical Services Contract: IT
 Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1
 Lab File ID (Standard): AB562.D Date Analyzed: 5/20/99
 Instrument ID: 5973-A Time Analyzed: 12:20

	IS1(DCB)		IS2(NPT)		IS3(ANT)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	114923	5.75	417344	7.65	203870	10.91
UPPER LIMIT	229846	6.25	834688	8.15	407740	11.41
LOWER LIMIT	57462	5.25	208672	7.15	101935	10.41
EPA SAMPLE NO.						
01 SBLK2	179127	5.75	654572	7.65	302771	10.90
02 MW-4DL	94239	5.76	332706	7.67	153427	10.93

IS1 (DCB) = d4-1,4-Dichlorobenzene
 IS2 (NPT) = d8-Naphthalene
 IS3 (ANT) = d10-Acenaphthene
 IS4 (PHN) = d10-Phenanthrene
 IS5 (CRY) = d12-Chrysene
 IS6 (PRY) = d12-Perylene

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.

* Values outside of contract required QC limits

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Columbia Analytical Services Contract: IT
 Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1
 Lab File ID (Standard): AB562.D Date Analyzed: 05/20/99
 Instrument ID: 5973-A Time Analyzed: 12:20

	IS4(PHN)		IS5(CRY)		IS6(PRY)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	314854	14.00	241772	19.84	242037	23.42
UPPER LIMIT	629708	13.50	483544	19.34	484074	22.92
LOWER LIMIT	157427	14.50	120886	20.34	121019	23.92
EPA SAMPLE NO.						
01: SBLK2	370547	14.00	193866	19.83	169303	23.41
02: MW-4DL	228356	14.03	193915	19.86	236605	23.45

IS1 (DCB) = d4-1,4-Dichlorobenzene
 IS2 (NPT) = d8-Naphthalene
 IS3 (ANT) = d10-Acenaphthene
 IS4 (PHN) = d10-Phenanthrene
 IS5 (CRY) = d12-Chrysene
 IS6 (PRY) = d12-Perylene

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.

* Values outside of contract required QC limits

4C
PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PBLK1

Lab Name: Columbia Analytical Services Contract: IT
 Lab Code: 10145 Case No.: 9905-159 SAS No.: _____ SDG No.: MW-1
 Lab Sample ID: 293302 Lab File ID: DE370.D
 Matrix: (soil/water) SOIL Extraction: (SepF/Cont/Sonc) SONC
 Sulfur Cleanup: (Y/N) Y Date Extracted: 05/12/99
 Date Analyzed (1): 05/20/99 Date Analyzed (2): 05/20/99
 Time Analyzed (1): 2303 Time Analyzed (2): 2303
 Instrument ID (1): 6890D Instrument ID (2): 6890D
 GC Column (1): RTx-CLP ID: 0.32 (mm) GC Column (2): RTx-CLP2 ID: 0.32 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01:	PBLK1MS	293303	05/20/99	05/20/99
02:	MW-1	291631	05/21/99	05/21/99
03:	MW-2	291632	05/21/99	05/21/99
04:	MW-3	291633	05/21/99	05/21/99
05:	PBLK1MSRE	293303	05/21/99	05/21/99

COMMENTS:

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK1

Lab Name: Columbia Analytical Services Contract: IT
 Lab Code: 10145 Case No.: 9905-159 SAS No.: _____ SDG No.: MW-1
 Matrix: (soil/water) SOIL Lab Sample ID: 293302
 Sample wt/vol: 30 (g/ml) G Lab File ID: DE370.D
 % Moisture: 0 decanted: (Y/N) N Date Received: _____
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 05/12/99
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 05/20/99
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) Y pH: _____ Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:

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

319-84-6	alpha-BHC	1.7	U
58-89-9	gamma-BHC (Lindane)	1.7	U
76-44-8	Heptachlor	1.7	U
309-00-2	Aldrin	1.7	U
319-85-7	beta-BHC	1.7	U
319-86-8	delta-BHC	1.7	U
1024-57-3	Heptachlor Epoxide	1.7	U
959-98-8	Endosulfan I	1.7	U
5103-74-2	gamma-Chlordane	1.7	U
5103-71-9	alpha-Chlordane	1.7	U
72-55-9	4,4'-DDE	3.3	U
60-57-1	Dieldrin	3.3	U
72-20-8	Endrin	3.3	U
33213-65-9	Endosulfan II	3.3	U
72-54-8	4,4'-DDD	3.3	U
50-29-3	4,4'-DDT	3.3	U
7421-36-3	Endrin Aldehyde	3.3	U
1031-07-8	Endosulfan Sulfate	3.3	U
72-43-5	Methoxychlor	17	U
53494-70-5	Endrin Ketone	3.3	U
12674-11-2	Aroclor-1016	33	U
11104-28-2	Aroclor-1221	67	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	33	U
11096-82-5	Aroclor-1260	33	U
8001-35-2	Toxaphene	170	U

00146A

4C
PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PBLK2

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 9905-159 SAS No.: _____ SDG No.: MW-1

Lab Sample ID: 293304 Lab File ID: DE372.D

Matrix: (soil/water) SOIL Extraction: (SepF/Cont/Sonc) SONC

Sulfur Cleanup: (Y/N) Y Date Extracted: 05/14/99

Date Analyzed (1): 05/21/99 Date Analyzed (2): 05/21/99

Time Analyzed (1): 0020 Time Analyzed (2): 0020

Instrument ID (1): 6890D Instrument ID (2): 6890D

GC Column (1): RTx-CLP ID: 0.32 (mm) GC Column (2): RTx-CLP2 ID: 0.32 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	PBLK2MS	293305	05/21/99	05/21/99
02	MW-5DL	292406	05/21/99	05/21/99
03	MW-5DUPDL	292407	05/21/99	05/21/99
04	MW-4	292408	05/21/99	05/21/99
05	MW-5	292406	05/21/99	05/21/99
06	MW-5MS	293306	05/21/99	05/21/99
07	MW-5MSD	293307	05/21/99	05/21/99
08	MW-5DUP	292407	05/21/99	05/21/99
09	PBLK2MSRE	293305	05/21/99	05/21/99

COMMENTS:

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK2

Lab Name: Columbia Analytical Services Contract: IT
 Lab Code: 10145 Case No.: 9905-159 SAS No.: _____ SDG No.: MW-1
 Matrix: (soil/water) SOIL Lab Sample ID: 293304
 Sample wt/vol: 30 (g/ml) G Lab File ID: DE372.D
 % Moisture: 0 decanted: (Y/N) N Date Received: _____
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 05/14/99
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 05/21/99
 Injection Volume: 1.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) Y pH: _____ Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) <u>UG/KG</u>	Q
319-84-6	alpha-BHC	1.7	U
58-89-9	gamma-BHC (Lindane)	1.7	U
76-44-8	Heptachlor	1.7	U
309-00-2	Aldrin	1.7	U
319-85-7	beta-BHC	1.7	U
319-86-8	delta-BHC	1.7	U
1024-57-3	Heptachlor Epoxide	1.7	U
959-98-8	Endosulfan I	1.7	U
5103-74-2	gamma-Chlordane	1.7	U
5103-71-9	alpha-Chlordane	1.7	U
72-55-9	4,4'-DDE	3.3	U
60-57-1	Dieldrin	3.3	U
72-20-8	Endrin	3.3	U
33213-65-9	Endosulfan II	3.3	U
72-54-8	4,4'-DDD	3.3	U
50-29-3	4,4'-DDT	3.3	U
7421-36-3	Endrin Aldehyde	3.3	U
1031-07-8	Endosulfan Sulfate	3.3	U
72-43-5	Methoxychlor	17	U
53494-70-5	Endrin Ketone	3.3	U
12674-11-2	Aroclor-1016	33	U
11104-28-2	Aroclor-1221	67	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	33	U
11096-82-5	Aroclor-1260	33	U
8001-35-2	Toxaphene	170	U

INORGANIC CLP

-3-

BLANKS

Contract: 9905000159

Lab Code:

Case No.:

SAS No.:

SDG NO.: MW-1

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L)						Prepa- ration Blank	C	M
			1	C	2	C	3	C			
Aluminum	42.1	U	42.1	U	42.1	U	42.1	U	8.420	U	P
Antimony	7.7	U	7.7	U	7.7	U	7.7	U	1.534	U	P
Arsenic	2.7	U	2.7	U	2.7	U	-2.9	B	0.544	U	P
Barium	4.4	U	4.4	U	4.4	U	4.4	U	0.888	U	P
Beryllium	0.2	U	0.2	U	0.2	U	0.2	U	0.034	U	P
Cadmium	0.6	U	0.6	U	0.6	U	0.6	U	0.126	U	P
Calcium	56.8	U	56.8	U	56.8	U	56.8	U	39.489	B	P
Chromium	0.6	U	0.6	U	0.6	U	0.6	U	0.188	B	P
Cobalt	1.2	U	1.2	U	1.2	U	1.2	U	0.244	U	P
Copper	1.2	U	1.2	U	1.2	U	1.2	U	0.236	U	P
Iron	50.2	B	32.4	B	34.1	B	24.6	B	4.200	U	P
Lead	2.6	U	2.6	U	2.6	U	2.6	U	-0.541	B	P
Magnesium	51.4	U	51.4	U	51.4	U	51.4	U	10.280	U	P
Manganese	0.9	U	0.9	U	0.9	U	0.9	U	0.185	U	P
Mercury	0.1	U	0.1	U	0.1	U					CV
Nickel	0.9	U	0.9	U	0.9	U	0.9	U	0.179	U	P
Potassium	431.0	U	431.0	U	431.0	U	431.0	U	86.200	U	P
Selenium	3.0	U	3.0	U	3.0	U	3.0	U	0.602	U	P
Silver	3.3	U	3.3	U	4.9	B	3.3	U	0.650	U	P
Sodium	217.0	U	217.0	U	217.0	U	217.0	U	43.789	B	P
Thallium	5.3	U	5.3	U	5.3	U	5.3	U	1.060	U	P
Vanadium	2.7	U	2.7	U	2.7	U	2.7	U	0.530	U	P
Zinc	2.0	U	2.0	U	17.9	B	2.9	B	1.300	B	P

0149

INORGANIC CLP

-3-

BLANKS

Contract: 9905000159

Lab Code:

Case No.:

SAS No.:

SDG NO.: MW-1

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L)						Prepa- ration Blank	C	M
			1	C	2	C	3	C			
Iron	21.0	U	21.0	U	21.0	U	21.0	U			P
Mercury	0.1	U	0.1	U	0.1	U	0.1	U	0.009	U	CV

0150

INORGANIC CLP

-3-

BLANKS

Contract: 9905000159

Lab Code:

Case No.:

SAS No.:

SDG NO.: MW-1

Preparation Blank Matrix (soil/water): WATERPreparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	Continuing Calibration Blank (ug/L)						Prepa- ration Blank	C	M
		1	C	2	C	3	C			
Iron		21.0	U							P
Mercury		0.1	U							CV

0151

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CASIROC Contract: IT GROUP
 Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1
 Matrix Spike - EPA Sample No.: MW-1 Level: (low/med) MED

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	9100	0.0	5800	64	59- 172
Benzene	9100	0.0	5900	65	62- 137
Trichloroethene	9100	0.0	3600	40*	66- 142
Toluene	9100	76000	85000	100	59- 139
Chlorobenzene	9100	0.0	9200	101	60- 133

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	REC.
1,1-Dichloroethene	9100	6400	70	9	22	59- 172
Benzene	9100	7000	77	17	24	62- 137
Trichloroethene	9100	4700	52*	26*	21	66- 142
Toluene	9100	86000	110	11	21	59- 139
Chlorobenzene	9100	9300	102	1	21	60- 133

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 1 out of 5 outside limits

Spike Recovery: 2 out of 10 outside limits

COMMENTS:

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1MS

Lab Name: CASIROC Contract: IT GROUP

Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) SOIL Lab Sample ID: 291631 125ms

Sample wt/vol: 4.0 (g/ml) G Lab File ID: Y2082.D

Level: (low/med) MED Date Received: 05/11/99

% Moisture: not dec. 31 Date Analyzed: 05/18/99

GC Column: DB624 ID: 0.32 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

74-87-3	Chloromethane	1800	U
75-01-4	Vinyl chloride	1800	U
75-00-3	Chloroethane	1800	U
74-83-9	Bromomethane	1800	U
67-64-1	Acetone	1800	U
75-35-4	1,1-Dichloroethene	5800	
75-09-2	Methylene chloride	1800	U
75-15-0	Carbon disulfide	1800	U
75-34-3	1,1-Dichloroethane	1800	U
78-93-3	2-Butanone	1800	U
540-59-0	1,2-Dichloroethene (total)	1800	U
67-66-3	Chloroform	1800	U
107-06-2	1,2-Dichloroethane	1800	U
71-55-6	1,1,1-Trichloroethane	1800	U
56-23-5	Carbon tetrachloride	1800	U
71-43-2	Benzene	5900	
79-01-6	Trichloroethene	3600	
78-87-5	1,2-Dichloropropane	1800	U
75-27-4	Bromodichloromethane	1800	U
10061-01-5	cis-1,3-Dichloropropene	1800	U
10061-02-6	trans-1,3-Dichloropropene	1800	U
79-00-5	1,1,2-Trichloroethane	1800	U
124-48-1	Dibromochloromethane	1800	U
75-25-2	Bromoform	1800	U
108-10-1	4-Methyl-2-pentanone	1800	U
108-88-3	Toluene	85000	E
591-78-6	2-Hexanone	1800	U
127-18-4	Tetrachloroethene	1800	U
108-90-7	Chlorobenzene	9200	
100-41-4	Ethylbenzene	1800	U
1330-20-7	o-Xylene	1800	U
100-42-5	Styrene	1800	U
108-88-3	1,1,2,2-Tetrachloroethane	1800	U
108383& 106423	(m+p) Xylene	1800	U

390 95-1 RSP

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1MSD

Lab Name: CASIROC Contract: IT GROUP
 Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1
 Matrix: (soil/water) SOIL Lab Sample ID: 291631 125ms
 Sample wt/vol: 4.0 (g/ml) G Lab File ID: Y2083.D
 Level: (low/med) MED Date Received: 05/11/99
 % Moisture: not dec. 31 Date Analyzed: 05/18/99
 GC Column: DB624 ID: 0.32 (mm) Dilution Factor: 1.0
 Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
74-87-3	Chloromethane		1800	U
75-01-4	Vinyl chloride		1800	U
75-00-3	Chloroethane		1800	U
74-83-9	Bromomethane		1800	U
67-64-1	Acetone		1800	U
75-35-4	1,1-Dichloroethene		6400	
75-09-2	Methylene chloride		1800	U
75-15-0	Carbon disulfide		1800	U
75-34-3	1,1-Dichloroethane		1800	U
78-93-3	2-Butanone		1800	U
540-59-0	1,2-Dichloroethene (total)		1800	U
67-66-3	Chloroform		1800	U
107-06-2	1,2-Dichloroethane		1800	U
71-55-6	1,1,1-Trichloroethane		1800	U
56-23-5	Carbon tetrachloride		1800	U
71-43-2	Benzene		7000	
79-01-6	Trichloroethene		4700	
78-87-5	1,2-Dichloropropane		1800	U
75-27-4	Bromodichloromethane		1800	U
10061-01-5	cis-1,3-Dichloropropene		1800	U
10061-02-6	trans-1,3-Dichloropropene		1800	U
79-00-5	1,1,2-Trichloroethane		1800	U
124-48-1	Dibromochloromethane		1800	U
75-25-2	Bromoform		1800	U
108-10-1	4-Methyl-2-pentanone		1800	U
108-88-3	Toluene		86000	E
591-78-6	2-Hexanone		1800	U
127-18-4	Tetrachloroethene		1800	U
108-90-7	Chlorobenzene		9300	
100-41-4	Ethylbenzene		1800	U
1330-20-7	o-Xylene		1800	U
100-42-5	Styrene		1800	U
108-88-3	1,1,2,2-Tetrachloroethane		1800	U
108383& 106423	(m+p) Xylene		1800	U

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CAS-ROCContract: IT GROUPLab Code: 10145Case No.: 99-5-159

SAS No.: _____

SDG No.: MW-1Matrix Spike - EPA Sample No. VBLK01Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
1,1-Dicethene	50	0.0	56	112	59 - 172
Benzene	50	0.0	52	104	66 - 142
Trichloroethene	50	0.0	52	104	62 - 137
Toluene	50	0.0	52	104	59 - 139
Chlorobenzene	50	0.0	53	106	60 - 133

COMMENTS:

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01MS

Lab Name: CAS-ROC Contract: IT GROUP

Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) SOIL Lab Sample ID: VBLK01MS

Sample wt/vol: 5.0 (g/ml) G Lab File ID: Q2051.D

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

% Moisture: not dec. 0 Date Analyzed: 05/18/99

GC Column: HP624 ID: 0.20 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
74-87-3	Chloromethane		10	U
75-01-4	Vinyl Chloride		10	U
75-00-3	Chloroethane		10	U
74-83-9	Bromomethane		10	U
67-64-1	Acetone		10	U
75-35-4	1,1-Dicethene		56	
75-09-2	Methylene Chloride		10	U
75-15-0	Carbon Disulfide		10	U
75-34-3	1,1-Dicethane		10	U
78-93-3	2-Butanone		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
71-55-6	1,1,1-Trichloroethane		10	U
56-23-5	Carbon tetrachloride		10	U
71-43-2	Benzene		52	
79-01-6	Trichloroethene		52	
78-87-5	1,2-Dicpropane		10	U
75-27-4	Bromodichloromethane		10	U
10061-01-5	cis-1,3-Dichloropropene		10	U
10061-02-6	trans-1,3-Dichloropropene		10	U
79-00-5	1,1,2-Trichloroethane		10	U
124-48-1	Dibromochloromethane		10	U
75-25-2	Bromoform		10	U
108-10-1	4-Methyl-2-pentanone		10	U
108-88-3	Toluene		52	
127-18-4	Tetrachloroethene		10	U
591-78-6	2-Hexanone		10	U
108-90-7	Chlorobenzene		53	
100-41-4	Ethylbenzene		10	U
108383&106423	(m+p) Xylene		10	U
1330-20-7	o-Xylene		10	U
100-42-5	Styrene		10	U
79-34-5	1,1,2,2-Tetrachloroethane		10	U

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CASIROC Contract: IT GROUPLab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1Matrix Spike - EPA Sample No.: VBLK02 Level: (low/med) MED

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	6200	0.0	5900	95	59- 172
Benzene	6200	0.0	5900	95	62- 137
Trichloroethene	6200	0.0	5100	82	66- 142
Toluene	6200	0.0	6400	103	59- 139
Chlorobenzene	6200	0.0	6700	108	60- 133

COMMENTS:

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK02MS

Lab Name: CAS\ROC Contract: IT GROUP
 Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1
 Matrix: (soil/water) SOIL Lab Sample ID: vblkms
 Sample wt/vol: 4.0 (g/ml) G Lab File ID: Y2080.D
 Level: (low/med) MED Date Received: _____
 % Moisture: not dec. 0 Date Analyzed: 05/18/99
 GC Column: DB624 ID: 0.32 (mm) Dilution Factor: 1.0
 Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

CONCENTRATION UNITS:

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

74-87-3	Chloromethane	1200	U
75-01-4	Vinyl chloride	1200	U
75-00-3	Chloroethane	1200	U
74-83-9	Bromomethane	1200	U
67-64-1	Acetone	1200	U
75-35-4	1,1-Dichloroethene	5900	
75-09-2	Methylene chloride	1200	U
75-15-0	Carbon disulfide	1200	U
75-34-3	1,1-Dichloroethane	1200	U
78-93-3	2-Butanone	1200	U
540-59-0	1,2-Dichloroethene (total)	1200	U
67-66-3	Chloroform	1200	U
107-06-2	1,2-Dichloroethane	1200	U
71-55-6	1,1,1-Trichloroethane	1200	U
56-23-5	Carbon tetrachloride	1200	U
71-43-2	Benzene	5900	
79-01-6	Trichloroethene	5100	
78-87-5	1,2-Dichloropropane	1200	U
75-27-4	Bromodichloromethane	1200	U
10061-01-5	cis-1,3-Dichloropropene	1200	U
10061-02-6	trans-1,3-Dichloropropene	1200	U
79-00-5	1,1,2-Trichloroethane	1200	U
124-48-1	Dibromochloromethane	1200	U
75-25-2	Bromoform	1200	U
108-10-1	4-Methyl-2-pentanone	1200	U
108-88-3	Toluene	6400	
591-78-6	2-Hexanone	1200	U
127-18-4	Tetrachloroethene	1200	U
108-90-7	Chlorobenzene	6700	
100-41-4	Ethylbenzene	1200	U
1330-20-7	o-Xylene	1200	U
100-42-5	Styrene	1200	U
108-88-3	1,1,2,2-Tetrachloroethane	1200	U
108383& 106423	(m+p) Xylene	1200	U

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Columbia Analytical Services Contract: IT
 Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1
 Matrix Spike - EPA Sample No. MW-5 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
Phenol	3400	0.0	2000	59	26 - 90
2-Chlorophenol	3400	0.0	2100	62	25 - 102
1,4-Dichlorobenzene	2300	0.0	1000	43	28 - 104
N-Nitroso-Di-n-propylamine	2300	0.0	1600	70	41 - 126
1,2,4-Trichlorobenzene	2300	0.0	1300	57	38 - 107
4-Chloro-3-methylphenol	3400	0.0	2500	74	26 - 103
Acenaphthene	2300	0.0	1600	70	31 - 137
2,4-Dinitrotoluene	2300	0.0	1800	78	28 - 89
4-Nitrophenol	3400	0.0	2700	79	11 - 114
Pentachlorophenol	3400	0.0	2700	79	17 - 109
Pyrene	2300	1100	2800	74	35 - 142

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	REC.
Phenol	3400	2300	68	14	35	26 - 90
2-Chlorophenol	3400	2400	71	14	50	25 - 102
1,4-Dichlorobenzene	2300	1000	43	0	27	28 - 104
N-Nitroso-Di-n-propylamine	2300	1900	83	17	38	41 - 126
1,2,4-Trichlorobenzene	2300	1400	61	7	23	38 - 107
4-Chloro-3-methylphenol	3400	3000	88	17	33	26 - 103
Acenaphthene	2300	1800	78	11	19	31 - 137
2,4-Dinitrotoluene	2300	2100	91	15	47	28 - 89
4-Nitrophenol	3400	3500	103	26	50	11 - 114
Pentachlorophenol	3400	3100	91	14	47	17 - 109
Pyrene	2300	2800	74	0	36	35 - 142

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 11 outside limits

Spike Recovery: 1 out of 22 outside limits

COMMENTS:

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-5MS

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-159 SAS No.: SDG No.: MW-1

Matrix: (soil/water) SOIL Lab Sample ID: 293606

Sample wt/vol: 30 (g/ml) G Lab File ID: AB553.D

Level: (low/med) LOW Date Received: 5/12/99

% Moisture: 26.2 decanted: (Y/N) N Date Extracted: 5/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 5/19/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
108-95-2	Phenol	2000		
111-44-4	bis(-2-Chloroethyl)Ether	450		U
95-57-8	2-Chlorophenol	2100		
541-73-1	1,3-Dichlorobenzene	450		U
106-46-7	1,4-Dichlorobenzene	1000		
95-50-1	1,2-Dichlorobenzene	450		U
108-60-1	2,2'-oxybis(1-Chloropropane)	450		U
95-48-7	2-Methylphenol	450		U
621-24-7	N-Nitroso-Di-n-propylamine	1600		
67-72-1	Hexachloroethane	450		U
106-44-5	4-Methylphenol	450		U
98-95-3	Nitrobenzene	450		U
78-59-1	Isophorone	450		U
88-75-5	2-Nitrophenol	450		U
105-67-9	2,4-Dimethylphenol	450		U
111-91-1	bis(-2-Chloroethoxy)Methane	450		U
120-83-2	2,4-Dichlorophenol	450		U
120-82-1	1,2,4-Trichlorobenzene	1300		
91-20-3	Naphthalene	82		J
106-47-8	4-Chloroaniline	450		U
87-68-3	Hexachlorobutadiene	450		U
59-50-7	4-Chloro-3-methylphenol	2500		
91-57-6	2-Methylnaphthalene	450		U
77-47-4	Hexachlorocyclopentadiene	450		U
88-06-2	2,4,6-Trichlorophenol	450		U
95-95-4	2,4,5-Trichlorophenol	1100		U
91-58-7	2-Chloronaphthalene	450		U
88-74-4	2-Nitroaniline	1100		U
208-96-8	Acenaphthylene	180		J
131-11-3	Dimethyl Phthalate	450		U
606-20-2	2,6-Dinitrotoluene	450		U
83-32-9	Acenaphthene	1600		
99-09-2	3-Nitroaniline	1100		U
51-28-5	2,4-Dinitrophenol	1100		U
132-64-9	Dibenzofuran	450		U
121-14-2	2,4-Dinitrotoluene	1800		
100-02-7	4-Nitrophenol	2700		

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-5MS

Lab Name: Columbia Analytical Services Contract: IT
 Lab Code: 10145 Case No.: 99-5-159 SAS No.: SDG No.: MW-1
 Matrix: (soil/water) SOIL Lab Sample ID: 293606
 Sample wt/vol: 30 (g/ml) G Lab File ID: AB553.D
 Level: (low/med) LOW Date Received: 5/12/99
 % Moisture: 26.2 decanted: (Y/N) N Date Extracted: 5/14/99
 Concentrated Extract Volume: 500 (uL) Date Analyzed: 5/19/99
 Injection Volume: 2.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) Y pH: 7

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
86-73-7	Fluorene	45		J
7005-72-3	4-Chlorophenyl-phenylether	450		U
84-66-2	Diethylphthalate	450		U
100-01-6	4-Nitroaniline	1100		U
534-52-1	4,6-Dinitro-2-methylphenol	1100		U
86-30-6	N-Nitrosodiphenylamine	450		U
101-55-3	4-Bromophenyl-phenylether	450		U
118-74-1	Hexachlorobenzene	450		U
87-86-5	Pentachlorophenol	2700		
85-01-8	Phenanthrene	310		J
120-12-7	Anthracene	210		J
86-74-8	Carbazole	51		J
84-74-2	Di-n-Butylphthalate	100		J
206-44-0	Fluoranthene	1400		
129-00-0	Pyrene	2800		
85-68-7	Butyl benzyl phthalate	450		U
91-94-1	3,3'-Dichlorobenzidine	450		U
56-55-3	Benzo(a)Anthracene	910		
218-01-9	Chrysene	930		
117-81-7	Bis(2-Ethylhexyl)Phthalate	250		JB
117-84-0	Di-n-octyl phthalate	450		U
205-99-2	Benzo(b)fluoranthene	690		
207-08-9	Benzo(k)Fluoranthene	630		
50-32-8	Benzo(a)Pyrene	1100		
193-39-5	Indeno(1,2,3-cd)Pyrene	790		
53-70-3	Dibenz(a,h)anthracene	290		J
191-24-2	Benzo(g,h,i)Perylene	1100		

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-5MSD

Lab Name: Columbia Analytical Services

Contract: IT

Lab Code: 10145

Case No.: 99-5-159

SAS No.:

SDG No.: MW-1

Matrix: (soil/water) SOIL

Lab Sample ID: 293607

Sample wt/vol: 30 (g/ml) G

Lab File ID: AB554.D

Level: (low/med) LOW

Date Received: 5/12/99

% Moisture: 26.2 decanted: (Y/N) N

Date Extracted: 5/14/99

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 5/19/99

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
108-95-2	Phenol		2300	
111-44-4	bis(-2-Chloroethyl)Ether		450	U
95-57-8	2-Chlorophenol		2400	
541-73-1	1,3-Dichlorobenzene		450	U
106-46-7	1,4-Dichlorobenzene		1000	
95-50-1	1,2-Dichlorobenzene		450	U
108-60-1	2,2'-oxybis(1-Chloropropane)		450	U
95-48-7	2-Methylphenol		450	U
621-24-7	N-Nitroso-Di-n-propylamine		1900	
67-72-1	Hexachloroethane		450	U
106-44-5	4-Methylphenol		450	U
98-95-3	Nitrobenzene		450	U
78-59-1	Isophorone		450	U
88-75-5	2-Nitrophenol		450	U
105-67-9	2,4-Dimethylphenol		450	U
111-91-1	bis(-2-Chloroethoxy)Methane		450	U
120-83-2	2,4-Dichlorophenol		450	U
120-82-1	1,2,4-Trichlorobenzene		1400	
91-20-3	Naphthalene		120	J
106-47-8	4-Chloroaniline		450	U
87-68-3	Hexachlorobutadiene		450	U
59-50-7	4-Chloro-3-methylphenol		3000	
91-57-6	2-Methylnaphthalene		64	J
77-47-4	Hexachlorocyclopentadiene		450	U
88-06-2	2,4,6-Trichlorophenol		450	U
95-95-4	2,4,5-Trichlorophenol		1100	U
91-58-7	2-Chloronaphthalene		450	U
88-74-4	2-Nitroaniline		1100	U
208-96-8	Acenaphthylene		170	J
131-11-3	Dimethyl Phthalate		450	U
606-20-2	2,6-Dinitrotoluene		450	U
83-32-9	Acenaphthene		1800	
99-09-2	3-Nitroaniline		1100	U
51-28-5	2,4-Dinitrophenol		1100	U
132-64-9	Dibenzofuran		450	U
121-14-2	2,4-Dinitrotoluene		2100	
100-02-7	4-Nitrophenol		3500	

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-5MSD

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-159 SAS No.: SDG No.: MW-1

Matrix: (soil/water) SOIL Lab Sample ID: 293607

Sample wt/vol: 30 (g/ml) G Lab File ID: AB554.D

Level: (low/med) LOW Date Received: 5/12/99

% Moisture: 26.2 decanted: (Y/N) N Date Extracted: 5/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 5/19/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
86-73-7	Fluorene	68	J
7005-72-3	4-Chlorophenyl-phenylether	450	U
84-66-2	Diethylphthalate	450	U
100-01-6	4-Nitroaniline	1100	U
534-52-1	4,6-Dinitro-2-methylphenol	1100	U
86-30-6	N-Nitrosodiphenylamine	450	U
101-55-3	4-Bromophenyl-phenylether	450	U
118-74-1	Hexachlorobenzene	450	U
87-86-5	Pentachlorophenol	3100	
85-01-8	Phenanthrene	490	
120-12-7	Anthracene	230	J
86-74-8	Carbazole	67	J
84-74-2	Di-n-Butylphthalate	86	J
206-44-0	Fluoranthene	1600	
129-00-0	Pyrene	2800	
85-68-7	Butyl benzyl phthalate	450	U
91-94-1	3,3'-Dichlorobenzidine	450	U
56-55-3	Benzo(a)Anthracene	910	
218-01-9	Chrysene	930	
117-81-7	Bis(2-Ethylhexyl)Phthalate	450	JB
117-84-0	Di-n-octyl phthalate	450	U
205-99-2	Benzo(b)fluoranthene	730	
207-08-9	Benzo(k)Fluoranthene	690	
50-32-8	Benzo(a)Pyrene	1100	
193-39-5	Indeno(1,2,3-cd)Pyrene	850	
53-70-3	Dibenz(a,h)anthracene	300	J
191-24-2	Benzo(g,h,i)Perylene	1200	

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Columbia Analytical Services Contract: IT
 Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1
 Matrix Spike - EPA Sample No. SBLK1 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
Phenol	2500	0.0	1200	48	26 - 90
2-Chlorophenol	2500	0.0	1300	52	25 - 102
1,4-Dichlorobenzene	1700	0.0	830	49	28 - 104
N-Nitroso-Di-n-propylamine	1700	0.0	960	56	41 - 126
1,2,4-Trichlorobenzene	1700	0.0	910	54	38 - 107
4-Chloro-3-methylphenol	2500	0.0	1200	48	26 - 103
Acenaphthene	1700	0.0	940	55	31 - 137
2,4-Dinitrotoluene	1700	0.0	850	50	28 - 89
4-Nitrophenol	2500	0.0	1100	44	11 - 114
Pentachlorophenol	2500	0.0	1300	52	17 - 109
Pyrene	1700	0.0	1200	71	35 - 142

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: out of outside limits

Spike Recovery: 0 out of 11 outside limits

COMMENTS:

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SBLK1MS

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) SOIL Lab Sample ID: 293603

Sample wt/vol: 30 (g/ml) G Lab File ID: AB549.D

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

% Moisture: 0 decanted: (Y/N) N Date Extracted: 5/12/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 5/19/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

108-95-2	Phenol	1200	
111-44-4	bis(-2-Chloroethyl)Ether	330	U
95-57-8	2-Chlorophenol	1300	
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	830	
95-50-1	1,2-Dichlorobenzene	330	U
108-60-1	2,2'-oxybis(1-Chloropropane)	330	U
95-48-7	2-Methylphenol	330	U
621-24-7	N-Nitroso-Di-n-propylamine	960	
67-72-1	Hexachloroethane	330	U
106-44-5	4-Methylphenol	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2,4-Dimethylphenol	330	U
111-91-1	bis(-2-Chloroethoxy)Methane	330	U
120-83-2	2,4-Dichlorophenol	330	U
120-82-1	1,2,4-Trichlorobenzene	910	
91-20-3	Naphthalene	330	U
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
59-50-7	4-Chloro-3-methylphenol	1200	
91-57-6	2-Methylnaphthalene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
88-06-2	2,4,6-Trichlorophenol	330	U
95-95-4	2,4,5-Trichlorophenol	830	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	830	U
208-96-8	Acenaphthylene	330	U
131-11-3	Dimethyl Phthalate	330	U
606-20-2	2,6-Dinitrotoluene	330	U
83-32-9	Acenaphthene	940	
99-09-2	3-Nitroaniline	830	U
51-28-5	2,4-Dinitrophenol	830	U
132-64-9	Dibenzofuran	330	U
121-14-2	2,4-Dinitrotoluene	850	
100-02-7	4-Nitrophenol	1100	

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SBLK1MS

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) SOIL Lab Sample ID: 293603

Sample wt/vol: 30 (g/ml) G Lab File ID: AB549.D

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

% Moisture: 0 decanted: (Y/N) N Date Extracted: 5/12/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 5/19/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

86-73-7	Fluorene	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
84-66-2	Diethylphthalate	330	U
100-01-6	4-Nitroaniline	830	U
534-52-1	4,6-Dinitro-2-methylphenol	830	U
86-30-6	N-Nitrosodiphenylamine	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	1300	
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
86-74-8	Carbazole	330	U
84-74-2	Di-n-Butylphthalate	330	U
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	1200	
85-68-7	Butyl benzyl phthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	330	U
56-55-3	Benzo(a)Anthracene	330	U
218-01-9	Chrysene	330	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	330	U
117-84-0	Di-n-octyl phthalate	330	U
205-99-2	Benzo(b)fluoranthene	330	U
207-08-9	Benzo(k)Fluoranthene	330	U
50-32-8	Benzo(a)Pyrene	330	U
193-39-5	Indeno(1,2,3-cd)Pyrene	330	U
53-70-3	Dibenz(a,h)anthracene	330	U
191-24-2	Benzo(g,h,i)Perylene	330	U

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Columbia Analytical Services Contract: IT
 Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1
 Matrix Spike - EPA Sample No. SBLK2 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
Phenol	2500	0.0	1200	48	26 - 90
2-Chlorophenol	2500	0.0	1300	52	25 - 102
1,4-Dichlorobenzene	1700	0.0	850	50	28 - 104
N-Nitroso-Di-n-propylamine	1700	0.0	1100	65	41 - 126
1,2,4-Trichlorobenzene	1700	0.0	900	53	38 - 107
4-Chloro-3-methylphenol	2500	0.0	1200	48	26 - 103
Acenaphthene	1700	0.0	940	55	31 - 137
2,4-Dinitrotoluene	1700	0.0	810	48	28 - 89
4-Nitrophenol	2500	0.0	1000	40	11 - 114
Pentachlorophenol	2500	0.0	1500	60	17 - 109
Pyrene	1700	0.0	1300	76	35 - 142

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: out of 1 outside limits

Spike Recovery: 0 out of 1 outside limits

COMMENTS:

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK2MS

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-159 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) SOIL Lab Sample ID: 293605

Sample wt/vol: 30 (g/ml) G Lab File ID: AB551.D

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

% Moisture: 0 decanted: (Y/N) N Date Extracted: 5/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 5/19/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
108-95-2	Phenol		1200	
111-44-4	bis(-2-Chloroethyl)Ether		330	U
95-57-8	2-Chlorophenol		1300	
541-73-1	1,3-Dichlorobenzene		330	U
106-46-7	1,4-Dichlorobenzene		850	
95-50-1	1,2-Dichlorobenzene		330	U
108-60-1	2,2'-oxybis(1-Chloropropane)		330	U
95-48-7	2-Methylphenol		330	U
621-24-7	N-Nitroso-Di-n-propylamine		1100	
67-72-1	Hexachloroethane		330	U
106-44-5	4-Methylphenol		330	U
98-95-3	Nitrobenzene		330	U
78-59-1	Isophorone		330	U
88-75-5	2-Nitrophenol		330	U
105-67-9	2,4-Dimethylphenol		330	U
111-91-1	bis(-2-Chloroethoxy)Methane		330	U
120-83-2	2,4-Dichlorophenol		330	U
120-82-1	1,2,4-Trichlorobenzene		900	
91-20-3	Naphthalene		330	U
106-47-8	4-Chloroaniline		330	U
87-68-3	Hexachlorobutadiene		330	U
59-50-7	4-Chloro-3-methylphenol		1200	
91-57-6	2-Methylnaphthalene		330	U
77-47-4	Hexachlorocyclopentadiene		330	U
88-06-2	2,4,6-Trichlorophenol		330	U
95-95-4	2,4,5-Trichlorophenol		830	U
91-58-7	2-Chloronaphthalene		330	U
88-74-4	2-Nitroaniline		830	U
208-96-8	Acenaphthylene		330	U
131-11-3	Dimethyl Phthalate		330	U
606-20-2	2,6-Dinitrotoluene		330	U
83-32-9	Acenaphthene		940	
99-09-2	3-Nitroaniline		830	U
51-28-5	2,4-Dinitrophenol		830	U
132-64-9	Dibenzofuran		330	U
121-14-2	2,4-Dinitrotoluene		810	
100-02-7	4-Nitrophenol		1000	

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SBLK2MS

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-159 SAS No.: SDG No.: MW-1

Matrix: (soil/water) SOIL Lab Sample ID: 293605

Sample wt/vol: 30 (g/ml) G Lab File ID: AB551.D

Level: (low/med) LOW Date Received:

% Moisture: 0 decanted: (Y/N) N Date Extracted: 5/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 5/19/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CONCENTRATION UNITS:

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

86-73-7	Fluorene	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
84-66-2	Diethylphthalate	330	U
100-01-6	4-Nitroaniline	830	U
534-52-1	4,6-Dinitro-2-methylphenol	830	U
86-30-6	N-Nitrosodiphenylamine	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	1500	
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
86-74-8	Carbazole	330	U
84-74-2	Di-n-Butylphthalate	330	U
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	1300	
85-68-7	Butyl benzyl phthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	330	U
56-55-3	Benzo(a)Anthracene	330	U
218-01-9	Chrysene	330	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	330	U
117-84-0	Di-n-octyl phthalate	330	U
205-99-2	Benzo(b)fluoranthene	330	U
207-08-9	Benzo(k)Fluoranthene	330	U
50-32-8	Benzo(a)Pyrene	330	U
193-39-5	Indeno(1,2,3-cd)Pyrene	330	U
53-70-3	Dibenz(a,h)anthracene	330	U
191-24-2	Benzo(g,h,i)Perylene	330	U

SOIL PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Columbia Analytical Services Contract: IT
 Lab Code: 10145 Case No.: 9905-159 SAS No.: SDG No.: MW-1
 Matrix Spike - EPA Sample No.: MW-5

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
gamma-BHC (Lindane)	23	0.0	11	48	46 - 127
Heptachlor	23	0.0	14	61	35 - 130
Aldrin	23	0.0	13	57	34 - 132
Dieldrin	45	0.0	33	73	31 - 134
Endrin	45	0.0	41	91	42 - 139
4,4'-DDT	45	0.0	45	100	23 - 134

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	REC.
gamma-BHC (Lindane)	23	12	52	8	50	46 - 127
Heptachlor	23	15	65	6	31	35 - 130
Aldrin	23	14	61	7	43	34 - 132
Dieldrin	45	36	80	9	38	31 - 134
Endrin	45	43	96	5	45	42 - 139
4,4'-DDT	45	44	98	2	50	23 - 134

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 6 outside limits

Spike Recovery: 0 out of 12 outside limits

COMMENTS:

0101

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-5MS

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 9905-159 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) SOIL Lab Sample ID: 293306

Sample wt/vol: 30 (g/ml) G Lab File ID: DE392.D

% Moisture: 26.2 decanted: (Y/N) N Date Received: 05/12/99

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 05/14/99

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 05/21/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

319-84-6	alpha-BHC	2.3	U
58-89-9	gamma-BHC (Lindane)	11	
76-44-8	Heptachlor	14	
309-00-2	Aldrin	13	
319-85-7	beta-BHC	2.3	U
319-86-8	delta-BHC	2.3	U
1024-57-3	Heptachlor Epoxide	2.3	U
959-98-8	Endosulfan I	2.3	U
5103-74-2	gamma-Chlordane	2.3	U
5103-71-9	alpha-Chlordane	2.3	U
72-55-9	4,4'-DDE	4.5	U
60-57-1	Dieldrin	33	P
72-20-8	Endrin	41	
33213-65-9	Endosulfan II	4.5	U
72-54-8	4,4'-DDD	4.5	U
50-29-3	4,4'-DDT	45	
7421-36-3	Endrin Aldehyde	4.5	U
1031-07-8	Endosulfan Sulfate	4.5	U
72-43-5	Methoxychlor	23	U
53494-70-5	Endrin Ketone	4.5	U
12674-11-2	Aroclor-1016	45	U
11104-28-2	Aroclor-1221	90	U
11141-16-5	Aroclor-1232	45	U
53469-21-9	Aroclor-1242	45	U
12672-29-6	Aroclor-1248	45	U
11097-69-1	Aroclor-1254	290	E
11096-82-5	Aroclor-1260	45	U
8001-35-2	Toxaphene	230	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-5MSD

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 9905-159 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) SOIL Lab Sample ID: 293307

Sample wt/vol: 30 (g/ml) G Lab File ID: DE393.D

% Moisture: 26.2 decanted: (Y/N) N Date Received: 05/12/99

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 05/14/99

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 05/21/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

319-84-6	alpha-BHC	2.3	U
58-89-9	gamma-BHC (Lindane)	12	
76-44-8	Heptachlor	15	
309-00-2	Aldrin	14	
319-85-7	beta-BHC	2.3	U
319-86-8	delta-BHC	2.3	U
1024-57-3	Heptachlor Epoxide	2.3	U
959-98-8	Endosulfan I	2.3	U
5103-74-2	gamma-Chlordane	2.3	U
5103-71-9	alpha-Chlordane	2.3	U
72-55-9	4,4'-DDE	4.5	U
60-57-1	Dieldrin	36	P
72-20-8	Endrin	43	
33213-65-9	Endosulfan II	4.5	U
72-54-8	4,4'-DDD	4.5	U
50-29-3	4,4'-DDT	44	
7421-36-3	Endrin Aldehyde	4.5	U
1031-07-8	Endosulfan Sulfate	4.5	U
72-43-5	Methoxychlor	23	U
53494-70-5	Endrin Ketone	4.5	U
12674-11-2	Aroclor-1016	45	U
11104-28-2	Aroclor-1221	90	U
11141-16-5	Aroclor-1232	45	U
53469-21-9	Aroclor-1242	45	U
12672-29-6	Aroclor-1248	45	U
11097-69-1	Aroclor-1254	610	E
11096-82-5	Aroclor-1260	45	U
8001-35-2	Toxaphene	230	U

GROUNDWATER ANALYTICAL DATA



A FULL SERVICE ENVIRONMENTAL LABORATORY

June 25, 1999

Mr. Tim Bryan
IT Corporation
300 West Washington
Suite 900
Chicago, IL 60606

PROJECT: PIERCE & STEVENS
Submission #: 9905000416

Dear Mr. Bryan:

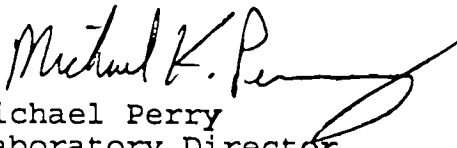
Enclosed are the analytical results of the analyses requested. The analytical data was provided to you on 06/04/99 per a Facsimile transmittal. All data has been reviewed prior to report submission.

Should you have any questions please contact me at (716) 288-5380.

Thank you for letting us provide this service.

Sincerely,

COLUMBIA ANALYTICAL SERVICES


Michael Perry
Laboratory Director

Enc.

This package has been reviewed by Columbia Analytical Services' ^{QA}
Department/Laboratory Director prior to report submittal. *mwp 6/25/99*

CASE NARRATIVE

COMPANY: IT Corporation
PROJECT: Pierce & Stevens
SUBMISSION #: 9905000416

Samples were collected on 05/26/99 and received at CAS on 05/27/99 in good condition at a cooler temperature of 5.0 °C. See CAS CLP Batching sheets for a cross reference between Client ID and CAS Job # and analyses requested. An ASP-B package has been supplied as requested.

VOLATILE ORGANIC ANALYSIS

Five water samples were analyzed for Target Compound List (TCL) volatile organics by Method 95-1 from the NYS DEC 1995 ASP.

All Tuning criteria for BFB were within limits.

The initial and continuing calibration criteria were met for all analytes.

All internal standard areas were within QC limits.

All surrogate compounds were within QC limits for recovery.

Matrix Spike/Matrix Spike Duplicate recoveries for sample MW-2 and the Blank Spike recoveries were all acceptable.

All Laboratory Blanks were free from contamination.

Library Searches against the NBS/EPA library were conducted on all samples, reanalyzes, and blanks. The 30 largest peaks within 10 % of the nearest Internal Standard were searched. A summary of detected peaks is included following the Target data. Any analyte detected was quantitated based on the closest internal standard and has been reported flagged with a "J" as estimated.

Samples MW-1 and MW-5 were originally analyzed at dilutions due to the level of target analytes and were reanalyzed at larger dilutions to bring target analytes within the calibration range of the method. Both dilutions were reported and any target analyte over the calibration range was flagged with an "E".

No other analytical or QC problems were encountered during the analysis of this SDG.

0001

SEMIVOLATILE ORGANICS

Five water samples were analyzed for TCL Semivolatiles by NYSDEC ASP method 95-2.

All DFTPP tuning criteria were within acceptance limits.

The initial calibration criteria were met for all analytes.

The continuing calibration criteria were met for all analytes.

The surrogate standard recoveries were within QC limits.

All internal standard areas were within QC limits.

Matrix Spike/Matrix Spike Duplicate recoveries sample MW-2 and the Blank Spike recoveries were all acceptable.

Library Searches against the NBS/EPA library were conducted on all samples, reanalyzes, and blanks for 95-2 analysis. The 30 largest peaks within 10 % of the nearest Internal Standard were searched. A summary of detected peaks is included following the Target data. Any analyte detected was quantitated based on the closest internal standard and has been reported flagged with a "J" as estimated. The Aliphatic Alkane Hydrocarbon peaks detected were excluded from being put on the TIC summary form I but were included with the raw data.

Sample MW-1 was reanalyzed at a larger dilution to bring target analytes within the calibration range of the method. Both dilutions were reported and any target analyte over the calibration range was flagged with an "E".

No other analytical or QC problems were encountered.

PESTICIDE/PCB ANALYSIS

Five water samples were analyzed for TCL Pesticides and PCBs by NYSDEC Method 95-3. The analysis was performed on one instrument with one injection splitting into a dual column, dual electron capture detector system. The analysis was conducted concurrently on RTx-CLP and RTx-CLP2 capillary columns.

The initial and continuing calibration criteria were met for all analytes.

All surrogate recoveries were within QC limits.

The Matrix Spike/Matrix Spike Duplicate recoveries for sample MW-2 were all within QC limits. The Blank Spike recoveries were all acceptable except Endrin was slightly elevated in the MS. This recovery has been flagged with an "**".

No other problems occurred during this analysis.

METALS ANALYSIS

Five water samples were analyzed for Total TAL Metals and Total Cyanide using NYSDEC 1995 ASP protocol. Mercury was analyzed by cold vapor methodology and all other metals were analyzed by ICP.

The Blank Spike recoveries (LCS) and % RPD were all acceptable. The matrix spike recovery done on sample MW-2 for Total Aluminum (41.6 %) and Total Selenium (71.1 %) were outside of QC limits (75 -125 %) and the data was flagged with a "N". Total and Soluble Manganese were flagged with an "E" indicating the serial dilution done on sample MW-2 was outside of QC limits.

No other analytical problems were encountered.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.


Michael K. Perry
Laboratory Manager

6/25/99
Date

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SAMPLE IDENTIFICATION AND
ANALYTICAL REQUIREMENT SUMMARY

[illegible]

Check Appropriate Boxes

CLP, Non-CLP

-1SL, Priority Pollutant

:CF1

VOA ANALYSES

NCF5

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY

ORGANIC ANALYSES

[illegible]

B/N-A ANALYSES

NCF4

ORGANIC ANALYSES

0009

[illegible]

ORGANIC ANALYSES

0011

[illegible]

[illegible]

09/83

[illegible]

09/89

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1

Lab Name: cas-roc Contract: it group

Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) WATER

Lab Sample ID: 296131 500

Sample wt/vol: 5.0 (g/ml) ML

Lab File ID: Q2307.D

Level: (low/med) LOW

Date Received: 05/27/99

% Moisture: not dec.

Date Analyzed: 06/04/99

GC Column: HP624 ID: 0.20 (mm)

Dilution Factor: 1/5000 6/21/99

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

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

74-87-3	Chloromethane	5000	U
75-01-4	Vinyl Chloride	5000	U
75-00-3	Chloroethane	2900	J
74-83-9	Bromomethane	5000	U
67-64-1	Acetone	5000	U
75-35-4	1,1-Dichloroethene	5000	U
75-09-2	Methylene Chloride	600	J
75-15-0	Carbon Disulfide	5000	U
75-34-3	1,1-Dichloroethane	1800	J
78-93-3	2-Butanone	5000	U
540-59-0	1,2-Dichloroethene (total)	5000	U
67-66-3	Chloroform	5000	U
107-06-2	1,2-Dichloroethane	5000	U
71-55-6	1,1,1-Trichloroethane	5000	U
56-23-5	Carbon tetrachloride	5000	U
71-43-2	Benzene	5000	U
79-01-6	Trichloroethene	5000	U
78-87-5	1,2-Dichloropropane	5000	U
75-27-4	Bromodichloromethane	5000	U
10061-01-5	cis-1,3-Dichloropropene	5000	U
10061-02-6	trans-1,3-Dichloropropene	5000	U
79-00-5	1,1,2-Trichloroethane	5000	U
124-48-1	Dibromochloromethane	5000	U
75-25-2	Bromoform	5000	U
108-10-1	4-Methyl-2-pentanone	5000	U
108-88-3	Toluene	120000	E
127-18-4	Tetrachloroethene	5000	U
591-78-6	2-Hexanone	5000	U
108-90-7	Chlorobenzene	5000	U
100-41-4	Ethylbenzene	5000	U
108383&106423	(m+p) Xylene	510	J
1330-20-7	o-Xylene	5000	U
100-42-5	Styrene	5000	U
79-34-5	1,1,2,2-Tetrachloroethane	5000	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-1

Lab Name: cas-roc Contract: it group
Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1
Matrix: (soil/water) WATER Lab Sample ID: 296131 500
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: Q2307.D
Level: (low/med) LOW Date Received: 05/27/99
% Moisture: not dec. Date Analyzed: 06/04/99
GC Column: HP624 ID: 0.20 (mm) Dilution Factor: 1/5000 6/21/99
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

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

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000096-37-7	Cyclopentane, methyl-	6.38	6500	JN

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1DL

Lab Name: cas-roc Contract: it group

Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 296131 1000

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: Q2308.D

Level: (low/med) LOW Date Received: 05/27/99

% Moisture: not dec. _____ Date Analyzed: 06/04/99

GC Column: HP624 ID: 0.20 (mm) Dilution Factor: 1000.0

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

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
74-87-3	Chloromethane		10000	U
75-01-4	Vinyl Chloride		10000	U
75-00-3	Chloroethane		2800	JD
74-83-9	Bromomethane		10000	U
67-64-1	Acetone		10000	U
75-35-4	1,1-Dicliethene		10000	U
75-09-2	Methylene Chloride		10000	U
75-15-0	Carbon Disulfide		10000	U
75-34-3	1,1-Dicliethane		1800	JD
78-93-3	2-Butanone		10000	U
540-59-0	1,2-Dichloroethene (total)		10000	U
67-66-3	Chloroform		10000	U
107-06-2	1,2-Dichloroethane		10000	U
71-55-6	1,1,1-Trichloroethane		10000	U
56-23-5	Carbon tetrachloride		10000	U
71-43-2	Benzene		10000	U
79-01-6	Trichloroethene		10000	U
78-87-5	1,2-Dicliopropane		10000	U
75-27-4	Bromodichloromethane		10000	U
10061-01-5	cis-1,3-Dichloropropene		10000	U
10061-02-6	trans-1,3-Dichloropropene		10000	U
79-00-5	1,1,2-Trichloroethane		10000	U
124-48-1	Dibromochloromethane		10000	U
75-25-2	Bromoform		10000	U
108-10-1	4-Methyl-2-pentanone		10000	U
108-88-3	Toluene		120000	D
127-18-4	Tetrachloroethene		10000	U
591-78-6	2-Hexanone		10000	U
108-90-7	Chlorobenzene		10000	U
100-41-4	Ethylbenzene		10000	U
108383&106423	(m+p) Xylene		10000	U
1330-20-7	o-Xylene		10000	U
100-42-5	Styrene		10000	U
79-34-5	1,1,2,2-Tetrachloroethane		10000	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-1DL

Lab Name: cas-roc Contract: it group
Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1
Matrix: (soil/water) WATER Lab Sample ID: 296131 1000
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: Q2308.D
Level: (low/med) LOW Date Received: 05/27/99
% Moisture: not dec. _____ Date Analyzed: 06/04/99
GC Column: HP624 ID: 0.20 (mm) Dilution Factor: 1000.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

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

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000096-37-7	Cyclopentane, methyl-	6.39	6200	JND

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2

Lab Name: cas-roc Contract: it group

Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 296141 1.0

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: Q2280.D

Level: (low/med) LOW Date Received: 05/27/99

% Moisture: not dec. _____ Date Analyzed: 06/03/99

GC Column: HP624 ID: 0.20 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
74-87-3	Chloromethane		10	U
75-01-4	Vinyl Chloride		10	U
75-00-3	Chloroethane		10	U
74-83-9	Bromomethane		10	U
67-64-1	Acetone		10	U
75-35-4	1,1-Dichloroethene		10	U
75-09-2	Methylene Chloride		10	U
75-15-0	Carbon Disulfide		10	U
75-34-3	1,1-Dichloroethane		5	J
78-93-3	2-Butanone		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
71-55-6	1,1,1-Trichloroethane		7	J
56-23-5	Carbon tetrachloride		10	U
71-43-2	Benzene		10	U
79-01-6	Trichloroethene		10	U
78-87-5	1,2-Dichloropropane		10	U
75-27-4	Bromodichloromethane		10	U
10061-01-5	cis-1,3-Dichloropropene		10	U
10061-02-6	trans-1,3-Dichloropropene		10	U
79-00-5	1,1,2-Trichloroethane		10	U
124-48-1	Dibromochloromethane		10	U
75-25-2	Bromoform		10	U
108-10-1	4-Methyl-2-pentanone		10	U
108-88-3	Toluene		10	U
127-18-4	Tetrachloroethene		10	U
591-78-6	2-Hexanone		10	U
108-90-7	Chlorobenzene		10	U
100-41-4	Ethylbenzene		10	U
108383&106423	(m+p) Xylene		10	U
1330-20-7	o-Xylene		10	U
100-42-5	Styrene		10	U
79-34-5	1,1,2,2-Tetrachloroethane		10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-2

Lab Name: cas-roc Contract: it group
Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1
Matrix: (soil/water) WATER Lab Sample ID: 296141 1.0
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: Q2280.D
Level: (low/med) LOW Date Received: 05/27/99
% Moisture: not dec. _____ Date Analyzed: 06/03/99
GC Column: HP624 ID: 0.20 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

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

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-3

Lab Name: cas-roc Contract: it group

Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 296137 1.0

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: Q2283.D

Level: (low/med) LOW Date Received: 05/27/99

% Moisture: not dec. _____ Date Analyzed: 06/03/99

GC Column: HP624 ID: 0.20 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
74-83-9	Bromomethane	10	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	10	U
75-09-2	Methylene Chloride	10	U
75-15-0	Carbon Disulfide	10	U
75-34-3	1,1-Dichloroethane	10	U
78-93-3	2-Butanone	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
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon tetrachloride	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
124-48-1	Dibromochloromethane	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
108383&106423	(m+p) Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-3

Lab Name: cas-roc Contract: it group
Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1
Matrix: (soil/water) WATER Lab Sample ID: 296137 1.0
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: Q2283.D
Level: (low/med) LOW Date Received: 05/27/99
% Moisture: not dec. _____ Date Analyzed: 06/03/99
GC Column: HP624 ID: 0.20 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

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

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-4

Lab Name: cas-roc Contract: it group

Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 296135 1.0

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: Q2284.D

Level: (low/med) LOW Date Received: 05/27/99

% Moisture: not dec. Date Analyzed: 06/03/99

GC Column: HP624 ID: 0.20 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
74-87-3	Chloromethane		10	U
75-01-4	Vinyl Chloride		10	U
75-00-3	Chloroethane		6	J
74-83-9	Bromomethane		10	U
67-64-1	Acetone		10	U
75-35-4	1,1-Dichloroethene		10	U
75-09-2	Methylene Chloride		10	U
75-15-0	Carbon Disulfide		10	U
75-34-3	1,1-Dichloroethane		10	U
78-93-3	2-Butanone		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
71-55-6	1,1,1-Trichloroethane		10	U
56-23-5	Carbon tetrachloride		10	U
71-43-2	Benzene		1	J
79-01-6	Trichloroethene		1	J
78-87-5	1,2-Dichloropropane		10	U
75-27-4	Bromodichloromethane		10	U
10061-01-5	cis-1,3-Dichloropropene		10	U
10061-02-6	trans-1,3-Dichloropropene		10	U
79-00-5	1,1,2-Trichloroethane		10	U
124-48-1	Dibromochloromethane		10	U
75-25-2	Bromoform		10	U
108-10-1	4-Methyl-2-pentanone		10	U
108-88-3	Toluene		6	J
127-18-4	Tetrachloroethene		10	U
591-78-6	2-Hexanone		10	U
108-90-7	Chlorobenzene		10	U
100-41-4	Ethylbenzene		10	U
108383&106423	(m+p) Xylene		10	U
1330-20-7	o-Xylene		10	U
100-42-5	Styrene		10	U
79-34-5	1,1,2,2-Tetrachloroethane		10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-4

Lab Name: cas-roc Contract: it group
Lab Code: 10145 Case No.: 99-5-416 SAS No.: SDG No.: MW-1
Matrix: (soil/~~water~~) WATER Lab Sample ID: 296135 1.0
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: Q2284.D
Level: (low/~~med~~) LOW Date Received: 05/27/99
% Moisture: not dec. Date Analyzed: 06/03/99
GC Column: HP624 ID: 0.20 (mm) Dilution Factor: 1.0
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Number TICs found: 1

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000096-37-7	Cyclopentane, methyl-	6.40	6	JN

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-5

Lab Name: cas-roc Contract: it group

Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 296133 5.0

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: Q2309.D

Level: (low/med) LOW Date Received: 05/27/99

% Moisture: not dec. _____ Date Analyzed: 06/04/99

GC Column: HP624 ID: 0.20 (mm) Dilution Factor: 1/5.0 @ 621

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

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
74-87-3	Chloromethane	50	U	
75-01-4	Vinyl Chloride	50	U	
75-00-3	Chloroethane	1500	E	
74-83-9	Bromomethane	50	U	
67-64-1	Acetone	50	U	
75-35-4	1,1-Dichloroethene	50	U	
75-09-2	Methylene Chloride	50	U	
75-15-0	Carbon Disulfide	50	U	
75-34-3	1,1-Dichloroethane	50	U	
78-93-3	2-Butanone	50	U	
540-59-0	1,2-Dichloroethene (total)	50	U	
67-66-3	Chloroform	50	U	
107-06-2	1,2-Dichloroethane	50	U	
71-55-6	1,1,1-Trichloroethane	50	U	
56-23-5	Carbon tetrachloride	50	U	
71-43-2	Benzene	36	J	
79-01-6	Trichloroethene	50	U	
78-87-5	1,2-Dichloropropane	50	U	
75-27-4	Bromodichloromethane	50	U	
10061-01-5	cis-1,3-Dichloropropene	50	U	
10061-02-6	trans-1,3-Dichloropropene	50	U	
79-00-5	1,1,2-Trichloroethane	50	U	
124-48-1	Dibromochloromethane	50	U	
75-25-2	Bromoform	50	U	
108-10-1	4-Methyl-2-pentanone	50	U	
108-88-3	Toluene	27	J	
127-18-4	Tetrachloroethene	50	U	
591-78-6	2-Hexanone	50	U	
108-90-7	Chlorobenzene	50	U	
100-41-4	Ethylbenzene	15	J	
108383&106423	(m+p) Xylene	68		
1330-20-7	o-Xylene	50	U	
100-42-5	Styrene	50	U	
79-34-5	1,1,2,2-Tetrachloroethane	50	U	

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-5

Lab Name: cas-roc Contract: it group

Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 296133 5.0

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: Q2309.D

Level: (low/med) LOW Date Received: 05/27/99

% Moisture: not dec. _____ Date Analyzed: 06/04/99

GC Column: HP624 ID: 0.20 (mm) Dilution Factor: 1050 @ 6/21

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

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Number TICs found: 17

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown hydrocarbon	4.48	36	J
2. 000107-83-5	Pentane, 2-methyl-	4.56	150	JN
3. 000075-65-0	2-Propanol, 2-methyl-	4.76	27	JN
4. 000096-14-0	Pentane, 3-methyl-	4.97	390	JN
5. 000110-54-3	Hexane	5.43	300	JN
6. 000096-37-7	Cyclopentane, methyl-	6.39	1700	JN
7. 000110-82-7	Cyclohexane	7.45	470	JN
8. 000565-59-3	Pentane, 2,3-dimethyl-	7.57	27	JN
9. 000589-34-4	Hexane, 3-methyl-	7.75	52	JN
10. 002453-00-1	Cyclopentane, 1,3-dimethyl-	8.07	35	JN
11. 002532-58-3	Cyclopentane, 1,3-dimethyl-, cis-	8.16	36	JN
12. 000872-56-0	Isopropylcyclobutane	8.25	68	JN
13. 000142-82-5	Heptane	8.47	37	JN
14. 000108-87-2	Cyclohexane, methyl-	9.31	1700	JN
15. 001640-89-7	Cyclopentane, ethyl-	9.63	120	JN
16. 015890-40-1	Cyclopentane, 1,2,3-trimethyl-, (1	10.00	27	JN
17.	unknown hydrocarbon	13.74	110	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-5DL

Lab Name: cas-roc Contract: it group

Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 296133 20

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: Q2311.D

Level: (low/med) LOW Date Received: 05/27/99

% Moisture: not dec. _____ Date Analyzed: 06/04/99

GC Column: HP624 ID: 0.20 (mm) Dilution Factor: 20.0

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

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
74-87-3	Chloromethane	200	U	
75-01-4	Vinyl Chloride	200	U	
75-00-3	Chloroethane	1600	D	
74-83-9	Bromomethane	200	U	
67-64-1	Acetone	200	U	
75-35-4	1,1-Dicloroethene	200	U	
75-09-2	Methylene Chloride	200	U	
75-15-0	Carbon Disulfide	200	U	
75-34-3	1,1-Dicloroethane	200	U	
78-93-3	2-Butanone	200	U	
540-59-0	1,2-Dichloroethene (total)	200	U	
67-66-3	Chloroform	200	U	
107-06-2	1,2-Dichloroethane	200	U	
71-55-6	1,1,1-Trichloroethane	200	U	
56-23-5	Carbon tetrachloride	200	U	
71-43-2	Benzene	36	JD	
79-01-6	Trichloroethene	200	U	
78-87-5	1,2-Dicloropropane	200	U	
75-27-4	Bromodichloromethane	200	U	
10061-01-5	cis-1,3-Dichloropropene	200	U	
10061-02-6	trans-1,3-Dichloropropene	200	U	
79-00-5	1,1,2-Trichloroethane	200	U	
124-48-1	Dibromochloromethane	200	U	
75-25-2	Bromoform	200	U	
108-10-1	4-Methyl-2-pentanone	200	U	
108-88-3	Toluene	27	JD	
127-18-4	Tetrachloroethene	200	U	
591-78-6	2-Hexanone	200	U	
108-90-7	Chlorobenzene	200	U	
100-41-4	Ethylbenzene	200	U	
108383&106423	(m+p) Xylene	63	JD	
1330-20-7	o-Xylene	200	U	
100-42-5	Styrene	200	U	
79-34-5	1,1,2,2-Tetrachloroethane	200	U	

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-5DL

Lab Name: cas-roc Contract: it group
Lab Code: 10145 Case No.: 99-5-416 SAS No.: SDG No.: MW-1
Matrix: (soil/~~water~~) WATER Lab Sample ID: 296133 20
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: Q2311.D
Level: (low/~~med~~) LOW Date Received: 05/27/99
% Moisture: not dec. Date Analyzed: 06/04/99
GC Column: HP624 ID: 0.20 (mm) Dilution Factor: 20.0
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Number TICs found: 9

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000109-66-0	Pentane	3.09	100	JND
2. 000107-83-5	Pentane, 2-methyl-	4.56	140	JND
3. 000096-14-0	Pentane, 3-methyl-	4.96	350	JND
4. 000110-54-3	Hexane	5.43	270	JND
5. 000096-37-7	Cyclopentane, methyl-	6.39	1600	JND
6. 000110-82-7	Cyclohexane	7.45	430	JND
7. 000108-87-2	Cyclohexane, methyl-	9.31	1500	JND
8. 001640-89-7	Cyclopentane, ethyl-	9.63	120	JND
9.	unknown	16.04	110	JD

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

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Lab Name: cas-roc Contract: it group

Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 296149 1.0

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: Q2310.D

Level: (low/med) LOW Date Received: 05/27/99

% Moisture: not dec. _____ Date Analyzed: 06/04/99

GC Column: HP624 ID: 0.20 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
74-87-3	Chloromethane		10	U
75-01-4	Vinyl Chloride		10	U
75-00-3	Chloroethane		10	U
74-83-9	Bromomethane		10	U
67-64-1	Acetone		10	U
75-35-4	1,1-Dichloroethene		10	U
75-09-2	Methylene Chloride		10	U
75-15-0	Carbon Disulfide		10	U
75-34-3	1,1-Dichloroethane		10	U
78-93-3	2-Butanone		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
71-55-6	1,1,1-Trichloroethane		10	U
56-23-5	Carbon tetrachloride		10	U
71-43-2	Benzene		10	U
79-01-6	Trichloroethene		10	U
78-87-5	1,2-Dichloropropane		10	U
75-27-4	Bromodichloromethane		10	U
10061-01-5	cis-1,3-Dichloropropene		10	U
10061-02-6	trans-1,3-Dichloropropene		10	U
79-00-5	1,1,2-Trichloroethane		10	U
124-48-1	Dibromochloromethane		10	U
75-25-2	Bromoform		10	U
108-10-1	4-Methyl-2-pentanone		10	U
108-88-3	Toluene		10	U
127-18-4	Tetrachloroethene		10	U
591-78-6	2-Hexanone		10	U
108-90-7	Chlorobenzene		10	U
100-41-4	Ethylbenzene		10	U
108383&106423	(m+p) Xylene		10	U
1330-20-7	o-Xylene		10	U
100-42-5	Styrene		10	U
79-34-5	1,1,2,2-Tetrachloroethane		10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

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Lab Name: cas-roc Contract: it group
Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1
Matrix: (soil/water) WATER Lab Sample ID: 296149 1.0
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: Q2310.D
Level: (low/med) LOW Date Received: 05/27/99
% Moisture: not dec. _____ Date Analyzed: 06/04/99
GC Column: HP624 ID: 0.20 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

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

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000109-99-9	Furan, tetrahydro-	7.00	6	JN

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-1

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 296131

Sample wt/vol: 1000 (g/ml) ML Lab File ID: AB675.D

Level: (low/med) LOW Date Received: 5/27/99

% Moisture: _____ decanted: (Y/N) N Date Extracted: 5/28/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/1/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

108-95-2	Phenol	14	
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
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
95-48-7	2-Methylphenol	170	E
621-24-7	N-Nitroso-Di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
106-44-5	4-Methylphenol	220	E
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	3	J
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
208-96-8	Acenaphthylene	10	U
131-11-3	Dimethyl Phthalate	10	U
606-20-2	2,6-Dinitrotoluene	10	U
83-32-9	Acenaphthene	10	U
99-09-2	3-Nitroaniline	25	U
51-28-5	2,4-Dinitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
100-02-7	4-Nitrophenol	25	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-1

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 296131

Sample wt/vol: 1000 (g/ml) ML Lab File ID: AB675.D

Level: (low/med) LOW Date Received: 5/27/99

% Moisture: _____ decanted:(Y/N) N Date Extracted: 5/28/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/1/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

86-73-7	Fluorene	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
84-66-2	Diethylphthalate	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	2	JB
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butyl benzyl phthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-octyl phthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-1

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 296131

Sample wt/vol: 1000 (g/ml) ML Lab File ID: AB675.D

Level: (low/med) LOW Date Received: 5/27/99

% Moisture: _____ decanted: (Y/N) N Date Extracted: 5/28/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/1/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

Number TICs found: 27 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	4.05	8	J
2.	unknown	4.38	7	J
3.	unknown	4.77	7	J
4.	unknown	4.88	18	J
5. 010264-55-8	3-Ethylcyclopentanone	5.01	6	JN
6. 000100-52-7	Benzaldehyde	5.07	33	JN
7. 000111-90-0	Ethanol, 2-(2-ethoxyethoxy)-	5.51	6	JNB
8. 000527-84-4	Benzene, 1-methyl-2-(1-methylet	5.78	4	JN
9. 000116-02-9	Cyclohexanol, 3,3,5-trimethyl-	6.09	9	JN
10.	unknown	6.38	6	J
11.	unknown	6.61	4	J
12.	unknown	6.69	4	J
13. 000065-85-0	Benzoic Acid	7.14	45	JN
14.	unknown	7.28	8	J
15.	unknown	7.79	3	J
16. 000103-82-2	Benzeneacetic acid	8.05	170	JN
17.	unknown	8.11	3	J
18. 000099-04-7	Benzoic acid, 3-methyl-	8.18	10	JN
19. 000099-94-5	Benzoic acid, 4-methyl-	8.24	3	JN
20. 000616-75-1	Benzylmalonic acid	8.89	22	JN
21.	unknown	9.23	10	J
22. 001821-12-1	Benzenebutanoic acid	9.88	3	JN
23.	unknown	11.49	2	J
24.	unknown	12.76	15	J
25.	unknown	15.22	6	J
26.	unknown	20.06	4	J
27. 000629-54-9	Hexadecanamide	21.33	5	JN

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-1DL

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-416 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 296131 1/5

Sample wt/vol: 1000 (g/ml) ML Lab File ID: AB706.D

Level: (low/med) LOW Date Received: 5/27/99

% Moisture: decanted: (Y/N) N Date Extracted: 5/28/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/3/99

Injection Volume: 2.0 (uL) Dilution Factor: 5.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

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

108-95-2	Phenol	12	JD
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
108-60-1	2,2'-oxybis(1-Chloropropane)	50	U
95-48-7	2-Methylphenol	140	D
621-24-7	N-Nitroso-Di-n-propylamine	50	U
67-72-1	Hexachloroethane	50	U
106-44-5	4-Methylphenol	180	D
98-95-3	Nitrobenzene	50	U
78-59-1	Isophorone	50	U
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
208-96-8	Acenaphthylene	50	U
131-11-3	Dimethyl Phthalate	50	U
606-20-2	2,6-Dinitrotoluene	50	U
83-32-9	Acenaphthene	50	U
99-09-2	3-Nitroaniline	120	U
51-28-5	2,4-Dinitrophenol	120	U
132-64-9	Dibenzofuran	50	U
121-14-2	2,4-Dinitrotoluene	50	U
100-02-7	4-Nitrophenol	120	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-1DL

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 296131 1/5

Sample wt/vol: 1000 (g/ml) ML Lab File ID: AB706.D

Level: (low/med) LOW Date Received: 5/27/99

% Moisture: _____ decanted:(Y/N) N Date Extracted: 5/28/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/3/99

Injection Volume: 2.0 (uL) Dilution Factor: 5.0

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

CONCENTRATION UNITS:

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

86-73-7	Fluorene	50	U
7005-72-3	4-Chlorophenyl-phenylether	50	U
84-66-2	Diethylphthalate	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	Butyl benzyl phthalate	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-octyl phthalate	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

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-1DL

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 296131 1/5

Sample wt/vol: 1000 (g/ml) ML Lab File ID: AB706.D

Level: (low/med) LOW Date Received: 5/27/99

% Moisture: _____ decanted: (Y/N) N Date Extracted: 5/28/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/3/99

Injection Volume: 2.0 (uL) Dilution Factor: 5.0

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

CONCENTRATION UNITS:

Number TICs found: 7 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 000116-53-0	Butanoic acid, 2-methyl-	3.37	22	JND
2.	unknown	4.59	21	JD
3. 010264-55-8	3-Ethylcyclopentanone	4.83	11	JND
4. 000100-52-7	Benzaldehyde	4.89	52	JND
5. 000065-85-0	Benzoic Acid	6.89	22	JND
6. 000076-22-2	Camphor	6.93	10	JND
7. 000103-82-2	Benzeneacetic acid	7.75	120	JND

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-2

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 296141

Sample wt/vol: 1000 (g/ml) ML Lab File ID: AB679.D

Level: (low/med) LOW Date Received: 5/27/99

% Moisture: _____ decanted: (Y/N) N Date Extracted: 5/28/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/1/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/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
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
95-48-7	2-Methylphenol	10	U
621-24-7	N-Nitroso-Di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
106-44-5	4-Methylphenol	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(-2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
208-96-8	Acenaphthylene	10	U
131-11-3	Dimethyl Phthalate	10	U
606-20-2	2,6-Dinitrotoluene	10	U
83-32-9	Acenaphthene	10	U
99-09-2	3-Nitroaniline	25	U
51-28-5	2,4-Dinitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
100-02-7	4-Nitrophenol	25	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 296141

Sample wt/vol: 1000 (g/ml) ML Lab File ID: AB679.D

Level: (low/med) LOW Date Received: 5/27/99

% Moisture: _____ decanted: (Y/N) N Date Extracted: 5/28/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/1/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

86-73-7	Fluorene	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
84-66-2	Diethylphthalate	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	2	JB
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butyl benzyl phthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-octyl phthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-2

Lab Name: Columbia Analytical Services Contract: IT
Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1
Matrix: (soil/~~water~~) WATER Lab Sample ID: 296141
Sample wt/vol: 1000 (g/ml) ML Lab File ID: AB679.D
Level: (low/~~med~~) LOW Date Received: 5/27/99
% Moisture: _____ decanted: (Y/N) N Date Extracted: 5/28/99
Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/1/99
Injection Volume: 2.0 (uL) Dilution Factor: 1.0
GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:

Number TICs found: 4 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 000111-90-0	Ethanol, 2-(2-ethoxyethoxy)-	5.49	8	JNB
2. 001792-81-0	cis-1,2-Cyclohexanediol	6.16	10	JN
3.	unknown	11.06	2	J
4.	unknown	21.34	10	JB

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-3

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 296137

Sample wt/vol: 1000 (g/ml) ML Lab File ID: AB678.D

Level: (low/med) LOW Date Received: 5/27/99

% Moisture: _____ decanted: (Y/N) N Date Extracted: 5/28/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/1/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/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
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
95-48-7	2-Methylphenol	10	U
621-24-7	N-Nitroso-Di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
106-44-5	4-Methylphenol	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(-2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
208-96-8	Acenaphthylene	10	U
131-11-3	Dimethyl Phthalate	10	U
606-20-2	2,6-Dinitrotoluene	10	U
83-32-9	Acenaphthene	10	U
99-09-2	3-Nitroaniline	25	U
51-28-5	2,4-Dinitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
100-02-7	4-Nitrophenol	25	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-3

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 296137

Sample wt/vol: 1000 (g/ml) ML Lab File ID: AB678.D

Level: (low/med) LOW Date Received: 5/27/99

% Moisture: _____ decanted:(Y/N) N Date Extracted: 5/28/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/1/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

86-73-7	Fluorene	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
84-66-2	Diethylphthalate	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	3	JB
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butyl benzyl phthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-octyl phthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-3

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 296137

Sample wt/vol: 1000 (g/ml) ML Lab File ID: AB678.D

Level: (low/med) LOW Date Received: 5/27/99

% Moisture: _____ decanted: (Y/N) N Date Extracted: 5/28/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/1/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

Number TICs found: 4 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 000822-67-3	2-Cyclohexen-1-ol	4.07	5	JNAB
2. 000930-68-7	2-Cyclohexen-1-one	4.71	3	JNAB
3. 000112-36-7	Ethane, 1,1'-oxybis[2-ethoxy-]	5.48	10	JNB
4.	unknown	21.31	8	JB

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-4

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 296135

Sample wt/vol: 1000 (g/ml) ML Lab File ID: AB677.D

Level: (low/med) LOW Date Received: 5/27/99

% Moisture: _____ decanted:(Y/N) N Date Extracted: 5/28/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/1/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/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
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
95-48-7	2-Methylphenol	10	U
621-24-7	N-Nitroso-Di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
106-44-5	4-Methylphenol	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(-2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
208-96-8	Acenaphthylene	10	U
131-11-3	Dimethyl Phthalate	10	U
606-20-2	2,6-Dinitrotoluene	10	U
83-32-9	Acenaphthene	10	U
99-09-2	3-Nitroaniline	25	U
51-28-5	2,4-Dinitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
100-02-7	4-Nitrophenol	25	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-4

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 296135

Sample wt/vol: 1000 (g/ml) ML Lab File ID: AB677.D

Level: (low/med) LOW Date Received: 5/27/99

% Moisture: _____ decanted:(Y/N) N Date Extracted: 5/28/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/1/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

86-73-7	Fluorene	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
84-66-2	Diethylphthalate	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	2	JB
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butyl benzyl phthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-octyl phthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-4

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 296135

Sample wt/vol: 1000 (g/ml) ML Lab File ID: AB677.D

Level: (low/med) LOW Date Received: 5/27/99

% Moisture: _____ decanted: (Y/N) N Date Extracted: 5/28/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/1/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

Number TICs found: 30 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 000822-67-3	2-Cyclohexen-1-ol	4.07	8	JNAB
2. 000930-68-7	2-Cyclohexen-1-one	4.71	4	JNAB
3. 000112-36-7	Ethane, 1,1'-oxybis[2-ethoxy-]	5.48	12	JNB
4.	unknown	5.84	3	J
5. 000822-86-6	Cyclohexane, 1,2-dichloro-, trans	6.30	4	JN
6.	unknown	7.09	5	J
7.	unknown	7.34	5	J
8.	unknown	8.08	5	J
9. 005948-04-9	Cyclohexanone, 2-methyl-5-(1-m	8.30	5	JN
10.	unknown	8.68	3	J
11.	unknown	8.77	6	J
12.	unknown	9.09	3	J
13.	unknown	9.13	3	J
14.	unknown	9.74	4	J
15.	unknown	9.99	4	J
16.	unknown	10.17	3	J
17.	unknown	10.57	3	J
18.	unknown	11.07	2	J
19.	unknown	11.16	3	J
20.	unknown	11.30	4	J
21.	unknown	11.43	3	J
22.	unknown	11.90	4	J
23.	unknown	11.99	7	J
24.	unknown	12.60	4	J
25.	unknown	12.89	10	J
26.	unknown	13.62	6	J
27.	unknown	14.66	3	J
28.	unknown	14.96	4	J
29.	unknown	15.74	6	J
30.	unknown	21.39	8	J

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-5

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 296133

Sample wt/vol: 970 (g/ml) ML Lab File ID: AB676.D

Level: (low/med) LOW Date Received: 5/27/99

% Moisture: _____ decanted: (Y/N) N Date Extracted: 5/28/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/1/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/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
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
95-48-7	2-Methylphenol	10	U
621-24-7	N-Nitroso-Di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
106-44-5	4-Methylphenol	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(-2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	7	J
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	1	J
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	26	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	26	U
208-96-8	Acenaphthylene	10	U
131-11-3	Dimethyl Phthalate	10	U
606-20-2	2,6-Dinitrotoluene	10	U
83-32-9	Acenaphthene	10	U
99-09-2	3-Nitroaniline	26	U
51-28-5	2,4-Dinitrophenol	26	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
100-02-7	4-Nitrophenol	26	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-5

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 296133

Sample wt/vol: 970 (g/ml) ML Lab File ID: AB676.D

Level: (low/med) LOW Date Received: 5/27/99

% Moisture: _____ decanted: (Y/N) N Date Extracted: 5/28/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/1/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

86-73-7	Fluorene	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
84-66-2	Diethylphthalate	10	U
100-01-6	4-Nitroaniline	26	U
534-52-1	4,6-Dinitro-2-methylphenol	26	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	26	U
85-01-8	Phenanthrene	2	J
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	4	JB
206-44-0	Fluoranthene	2	J
129-00-0	Pyrene	2	J
85-68-7	Butyl benzyl phthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-octyl phthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-5

Lab Name: Columbia Analytical Services Contract: IT
 Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1
 Matrix: (soil/water) WATER Lab Sample ID: 296133
 Sample wt/vol: 970 (g/ml) ML Lab File ID: AB676.D
 Level: (low/med) LOW Date Received: 5/27/99
 % Moisture: _____ decanted: (Y/N) N Date Extracted: 5/28/99
 Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/1/99
 Injection Volume: 2.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:

Number TICs found: 28 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 000142-96-1	n-Butyl ether	3.98	55	JN
2. 000822-67-3	2-Cyclohexen-1-ol	4.07	5	JNAB
3. 000590-67-0	1-Methylcyclohexanol	4.17	24	JN
4. 000930-68-7	2-Cyclohexen-1-one	4.70	3	JNAB
5.	unknown	4.73	6	J
6. 007443-55-2	trans-3-Methylcyclohexanol	4.82	10	JN
7. 000583-60-8	Cyclohexanone, 2-methyl-	4.90	13	JN
8.	unknown	4.93	12	J
9. 000765-87-7	1,2-Cyclohexanedione	5.00	8	JN
10.	unknown	5.09	4	J
11.	unknown	5.13	8	J
12. 000611-14-3	Benzene, 1-ethyl-2-methyl-	5.29	3	JN
13. 000111-90-0	Ethanol, 2-(2-ethoxyethoxy)-	5.47	18	JNB
14. 000527-84-4	Benzene, 1-methyl-2-(1-methylet	5.77	20	JN
15. 001074-43-7	Benzene, 1-methyl-3-propyl-	6.04	10	JN
16. 000099-87-6	Benzene, 1-methyl-4-(1-methylet	6.11	14	JN
17. 000135-98-8	Benzene, (1-methylpropyl)-	6.23	3	JN
18. 000933-98-2	Benzene, 1-ethyl-2,3-dimethyl-	6.33	17	JN
19. 002870-04-4	Benzene, 2-ethyl-1,3-dimethyl-	6.65	3	JN
20. 000874-41-9	Benzene, 1-ethyl-2,4-dimethyl-	6.74	3	JN
21. 000527-84-4	Benzene, 1-methyl-2-(1-methylet	6.79	7	JN
22. 000824-22-6	1H-Indene, 2,3-dihydro-4-methyl-	7.03	5	JN
23. 000076-22-2	Camphor	7.12	15	JN
24. 000118-90-1	Benzoic acid, 2-methyl-	7.90	4	JN
25.	unknown	9.23	3	J
26. 000528-90-5	Benzoic acid, 2,4,5-trimethyl-	10.39	11	JN
27.	unknown	12.73	10	J
28.	unknown	21.30	13	JB

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 9905-416 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 296131

Sample wt/vol: 970 (g/ml) ML Lab File ID: FS330.D

% Moisture: decanted: (Y/N) N Date Received: 05/27/99

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 05/28/99

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 06/03/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

319-84-6	alpha-BHC	0.052	U
58-89-9	gamma-BHC (Lindane)	0.052	U
76-44-8	Heptachlor	0.052	U
309-00-2	Aldrin	0.052	U
319-85-7	beta-BHC	0.052	U
319-86-8	delta-BHC	0.052	U
1024-57-3	Heptachlor Epoxide	0.052	U
959-98-8	Endosulfan I	0.052	U
5103-74-2	gamma-Chlordane	0.052	U
5103-71-9	alpha-Chlordane	0.052	U
72-55-9	4,4'-DDE	0.10	U
60-57-1	Dieldrin	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
50-29-3	4,4'-DDT	0.10	U
7421-36-3	Endrin Aldehyde	0.10	U
1031-07-8	Endosulfan Sulfate	0.10	U
72-43-5	Methoxychlor	0.52	U
53494-70-5	Endrin Ketone	0.10	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.1	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
8001-35-2	Toxaphene	5.2	U

0049

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 9905-416 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 296141

Sample wt/vol: 1000 (g/ml) ML Lab File ID: FS334.D

% Moisture: _____ decanted: (Y/N) N Date Received: 05/27/99

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 05/28/99

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 06/03/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

319-84-6	alpha-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
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
1024-57-3	Heptachlor Epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
5103-71-9	alpha-Chlordane	0.050	U
72-55-9	4,4'-DDE	0.10	U
60-57-1	Dieldrin	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
50-29-3	4,4'-DDT	0.10	U
7421-36-3	Endrin Aldehyde	0.10	U
1031-07-8	Endosulfan Sulfate	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin Ketone	0.10	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
8001-35-2	Toxaphene	5.0	U

0050

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-3

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 9905-416 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 296137

Sample wt/vol: 930 (g/ml) ML Lab File ID: FS333.D

% Moisture: decanted: (Y/N) N Date Received: 05/27/99

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 05/28/99

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 06/03/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

319-84-6	alpha-BHC	0.054	U
58-89-9	gamma-BHC (Lindane)	0.054	U
76-44-8	Heptachlor	0.054	U
309-00-2	Aldrin	0.054	U
319-85-7	beta-BHC	0.054	U
319-86-8	delta-BHC	0.054	U
1024-57-3	Heptachlor Epoxide	0.054	U
959-98-8	Endosulfan I	0.054	U
5103-74-2	gamma-Chlordane	0.054	U
5103-71-9	alpha-Chlordane	0.054	U
72-55-9	4,4'-DDE	0.11	U
60-57-1	Dieldrin	0.11	U
72-20-8	Endrin	0.11	U
33213-65-9	Endosulfan II	0.11	U
72-54-8	4,4'-DDD	0.11	U
50-29-3	4,4'-DDT	0.11	U
7421-36-3	Endrin Aldehyde	0.11	U
1031-07-8	Endosulfan Sulfate	0.11	U
72-43-5	Methoxychlor	0.54	U
53494-70-5	Endrin Ketone	0.11	U
12674-11-2	Aroclor-1016	1.1	U
11104-28-2	Aroclor-1221	2.2	U
11141-16-5	Aroclor-1232	1.1	U
53469-21-9	Aroclor-1242	1.1	U
12672-29-6	Aroclor-1248	1.1	U
11097-69-1	Aroclor-1254	1.1	U
11096-82-5	Aroclor-1260	1.1	U
8001-35-2	Toxaphene	5.4	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-4

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 9905-416 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 296135

Sample wt/vol: 920 (g/ml) ML Lab File ID: FS332.D

% Moisture: _____ decanted: (Y/N) N Date Received: 05/27/99

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 05/28/99

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 06/03/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

319-84-6	alpha-BHC	0.054	U
58-89-9	gamma-BHC (Lindane)	0.054	U
76-44-8	Heptachlor	0.054	U
309-00-2	Aldrin	0.054	U
319-85-7	beta-BHC	0.054	U
319-86-8	delta-BHC	0.054	U
1024-57-3	Heptachlor Epoxide	0.054	U
959-98-8	Endosulfan I	0.054	U
5103-74-2	gamma-Chlordane	0.054	U
5103-71-9	alpha-Chlordane	0.054	U
72-55-9	4,4'-DDE	0.11	U
60-57-1	Dieldrin	0.11	U
72-20-8	Endrin	0.11	U
33213-65-9	Endosulfan II	0.11	U
72-54-8	4,4'-DDD	0.11	U
50-29-3	4,4'-DDT	0.11	U
7421-36-3	Endrin Aldehyde	0.11	U
1031-07-8	Endosulfan Sulfate	0.11	U
72-43-5	Methoxychlor	0.54	U
53494-70-5	Endrin Ketone	0.11	U
12674-11-2	Aroclor-1016	1.1	U
11104-28-2	Aroclor-1221	2.2	U
11141-16-5	Aroclor-1232	1.1	U
53469-21-9	Aroclor-1242	1.1	U
12672-29-6	Aroclor-1248	1.1	U
11097-69-1	Aroclor-1254	1.1	U
11096-82-5	Aroclor-1260	1.1	U
8001-35-2	Toxaphene	5.4	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-5

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 9905-416 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 296133

Sample wt/vol: 1000 (g/ml) ML Lab File ID: FS331.D

% Moisture: _____ decanted: (Y/N) N Date Received: 05/27/99

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 05/28/99

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 06/03/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

319-84-6	alpha-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
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
1024-57-3	Heptachlor Epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
5103-71-9	alpha-Chlordane	0.050	U
72-55-9	4,4'-DDE	0.10	U
60-57-1	Dieldrin	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
50-29-3	4,4'-DDT	0.10	U
7421-36-3	Endrin Aldehyde	0.10	U
1031-07-8	Endosulfan Sulfate	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin Ketone	0.10	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
8001-35-2	Toxaphene	5.0	U

TOTAL METALS
COVER PAGE - INORGANIC ANALYSIS DATA PACKAGE

Contract: 9905000416

SDG No.: MW-1

Lab Code:

Case No.:

SAS No.:

Job No.: 6010B CLP-M

Sample No.	Lab Sample ID.
MW-1	296131
MW-5	296133
MW-4	296135
MW-3	296137
MW-2	296141
MW-2D	296141D
MW-2S	296141S
MW-2S	296141S-F
MW-1 SOLUBLE IN LAB FLI	296162
MW-5 SOLUBLE IN LAB FLI	296163
MW-4 SOLUBLE IN LAB FLI	296164
MW-3 SOLUBLE IN LAB FLI	296165
MW-2 SOLUBLE IN LAB FLI	296166
MW-2 SOLUBLE IN LAB FLI	296166D
MW-2 SOLUBLE IN LAB FLI	296166S
MW-2 SOLUBLE IN LAB FLI	296166S-F

Were ICP interelement corrections applied?

Yes/No YES

Were ICP background corrections applied?

Yes/No YES

If yes-were raw data generated before
application of background corrections?

Yes/No NO

Comments:

see the attached case narrative

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature:

Michael K. Perry

Name:

Michael K. Perry

Date:

6/25/99

Title:

Laboratory Manager

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

MW-1

Contract: 9905000416

Lab Code:

Case No.:

SAS No.:

SDG NO.: MW-1

Matrix (soil/water): WATER

Lab Sample ID: 296131

Level (low/med): LOW

Date Received: 05/27/99

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5540		NE	P
7440-36-0	Antimony	7.7	B		P
7440-38-2	Arsenic	4.0	B		P
7440-39-3	Barium	538			P
7440-41-7	Beryllium	0.37	B		P
7440-43-9	Cadmium	1.7	B		P
7440-70-2	Calcium	172000			P
7440-47-3	Chromium	6.7	B		P
7440-48-4	Cobalt	1.9	B		P
7440-50-8	Copper	20.8	B		P
7439-89-6	Iron	101000			P
7439-92-1	Lead	54.9			P
7439-95-4	Magnesium	18800			P
7439-96-5	Manganese	892		E	P
7439-97-6	Mercury	5.7			CV
7440-02-0	Nickel	14.6	B		P
7440-09-7	Potassium	14300			P
7782-49-2	Selenium	9.4		N	P
7440-22-4	Silver	1.3	U		P
7440-23-5	Sodium	130000			P
7440-28-0	Thallium	5.3	U		P
7440-62-2	Vanadium	25.4	B		P
7440-66-6	Zinc	111			P

Color Before: BROWN

Clarity Before: CLOUDY

Texture:

Color After: YELLOW

Clarity After: CLEAR

Artifacts:

Comments:

0055

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

MW-1 SOLUBLE IN L

Contract: 9905000416

Lab Code:

Case No.:

SAS No.:

SDG NO.: MW-1

Matrix (soil/water): WATER

Lab Sample ID: 296162

Level (low/med): LOW

Date Received: 05/27/99

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	581			P
7440-36-0	Antimony	7.7	U		P
7440-38-2	Arsenic	2.7	U		P
7440-39-3	Barium	421			P
7440-41-7	Beryllium	0.21	B		P
7440-43-9	Cadmium	0.99	B		P
7440-70-2	Calcium	179000			P
7440-47-3	Chromium	0.64	U		P
7440-48-4	Cobalt	1.2	U		P
7440-50-8	Copper	1.2	U		P
7439-89-6	Iron	60300			P
7439-92-1	Lead	2.6	U		P
7439-95-4	Magnesium	18400			P
7439-96-5	Manganese	859		E	P
7439-97-6	Mercury	0.41			CV
7440-02-0	Nickel	13.8	B		P
7440-09-7	Potassium	14600			P
7782-49-2	Selenium	10.8			P
7440-22-4	Silver	1.3	U		P
7440-23-5	Sodium	139000			P
7440-28-0	Thallium	5.3	U		P
7440-62-2	Vanadium	9.3	B		P
7440-66-6	Zinc	28.8			P

Color Before: BROWN

Clarity Before: CLOUDY

Texture:

Color After: YELLOW

Clarity After: CLEAR

Artifacts:

Comments:

0056

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

MW-5

Contract: 9905000416

Lab Code:

Case No.:

SAS No.:

SDG NO.: MW-1

Matrix (soil/water): WATER

Lab Sample ID: 296133

Level (low/med): LOW

Date Received: 05/27/99

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3650		NE	P
7440-36-0	Antimony	16.4	B		P
7440-38-2	Arsenic	18.8			P
7440-39-3	Barium	799			P
7440-41-7	Beryllium	0.49	B		P
7440-43-9	Cadmium	5.7			P
7440-70-2	Calcium	134000			P
7440-47-3	Chromium	30.7			P
7440-48-4	Cobalt	4.4	B		P
7440-50-8	Copper	294			P
7439-89-6	Iron	103000			P
7439-92-1	Lead	1530			P
7439-95-4	Magnesium	11200			P
7439-96-5	Manganese	618		E	P
7439-97-6	Mercury	3.9			CV
7440-02-0	Nickel	32.5	B		P
7440-09-7	Potassium	7930			P
7782-49-2	Selenium	10.9		N	P
7440-22-4	Silver	1.3	U		P
7440-23-5	Sodium	7730			P
7440-28-0	Thallium	5.3	U		P
7440-62-2	Vanadium	27.0	B		P
7440-66-6	Zinc	1320			P

Color Before: BROWN

Clarity Before: CLOUDY

Texture:

Color After: YELLOW

Clarity After: CLEAR

Artifacts:

Comments:

0057

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

MW-5 SOLUBLE IN L

Contract: 9905000416

Lab Code:

Case No.:

SAS No.:

SDG NO.: MW-1

Matrix (soil/water): WATER

Lab Sample ID: 296163

Level (low/med): LOW

Date Received: 05/27/99

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	127	B		P
7440-36-0	Antimony	7.7	U		P
7440-38-2	Arsenic	2.7	U		P
7440-39-3	Barium	385			P
7440-41-7	Beryllium	0.44	B		P
7440-43-9	Cadmium	0.63	U		P
7440-70-2	Calcium	134000			P
7440-47-3	Chromium	0.64	U		P
7440-48-4	Cobalt	2.7	B		P
7440-50-8	Copper	3.9	B		P
7439-89-6	Iron	11100			P
7439-92-1	Lead	15.4			P
7439-95-4	Magnesium	11000			P
7439-96-5	Manganese	386		E	P
7439-97-6	Mercury	0.05	U		CV
7440-02-0	Nickel	9.7	B		P
7440-09-7	Potassium	8220			P
7782-49-2	Selenium	3.6	B		P
7440-22-4	Silver	1.3	U		P
7440-23-5	Sodium	8240			P
7440-28-0	Thallium	5.3	U		P
7440-62-2	Vanadium	2.7	U		P
7440-66-6	Zinc	34.1			P

Color Before: BROWN

Clarity Before: CLOUDY

Texture:

Color After: YELLOW

Clarity After: CLEAR

Artifacts:

Comments:

0058

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

MW-4

Contract: 9905000416

Lab Code:

Case No.:

SAS No.:

SDG NO.: MW-1

Matrix (soil/water): WATER

Lab Sample ID: 296135

Level (low/med): LOW

Date Received: 05/27/99

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	10500		NE	P
7440-36-0	Antimony	10.6	B		P
7440-38-2	Arsenic	5.8	B		P
7440-39-3	Barium	1170			P
7440-41-7	Beryllium	0.82	B		P
7440-43-9	Cadmium	2.6	B		P
7440-70-2	Calcium	259000			P
7440-47-3	Chromium	13.8			P
7440-48-4	Cobalt	4.3	B		P
7440-50-8	Copper	305			P
7439-89-6	Iron	78700			P
7439-92-1	Lead	208			P
7439-95-4	Magnesium	21200			P
7439-96-5	Manganese	783		E	P
7439-97-6	Mercury	1.4			CV
7440-02-0	Nickel	26.9	B		P
7440-09-7	Potassium	14200			P
7782-49-2	Selenium	11.9		N	P
7440-22-4	Silver	1.3	U		P
7440-23-5	Sodium	35300			P
7440-28-0	Thallium	5.3	U		P
7440-62-2	Vanadium	32.7	B		P
7440-66-6	Zinc	601			P

Color Before: BROWN

Clarity Before: CLOUDY

Texture:

Color After: YELLOW

Clarity After: CLEAR

Artifacts:

Comments:

0059

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

MW-4 SOLUBLE IN L

Contract: 9905000416

Lab Code:

Case No.:

SAS No.:

SDG NO.: MW-1

Matrix (soil/water): WATER

Lab Sample ID: 296164

Level (low/med): LOW

Date Received: 05/27/99

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	647			P
7440-36-0	Antimony	7.7	U		P
7440-38-2	Arsenic	2.7	U		P
7440-39-3	Barium	833			P
7440-41-7	Beryllium	0.31	B		P
7440-43-9	Cadmium	0.63	U		P
7440-70-2	Calcium	262000			P
7440-47-3	Chromium	0.64	U		P
7440-48-4	Cobalt	1.2	U		P
7440-50-8	Copper	6.3	B		P
7439-89-6	Iron	21200			P
7439-92-1	Lead	2.6	U		P
7439-95-4	Magnesium	19900			P
7439-96-5	Manganese	680		E	P
7439-97-6	Mercury	0.05	U		CV
7440-02-0	Nickel	4.1	B		P
7440-09-7	Potassium	13500			P
7782-49-2	Selenium	4.8	B		P
7440-22-4	Silver	1.3	U		P
7440-23-5	Sodium	36600			P
7440-28-0	Thallium	5.3	U		P
7440-62-2	Vanadium	4.4	B		P
7440-66-6	Zinc	28.9			P

Color Before: BROWN

Clarity Before: CLOUDY

Texture:

Color After: YELLOW

Clarity After: CLEAR

Artifacts:

Comments:

0060

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

MW-3

Contract: 9905000416

Lab Code:

Case No.:

SAS No.:

SDG NO.: MW-1

Matrix (soil/water): WATER

Lab Sample ID: 296137

Level (low/med): LOW

Date Received: 05/27/99

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1640		NE	P
7440-36-0	Antimony	7.7	U		P
7440-38-2	Arsenic	2.7	U		P
7440-39-3	Barium	213			P
7440-41-7	Beryllium	0.20	B		P
7440-43-9	Cadmium	0.63	U		P
7440-70-2	Calcium	203000			P
7440-47-3	Chromium	3.0	B		P
7440-48-4	Cobalt	1.2	U		P
7440-50-8	Copper	8.9	B		P
7439-89-6	Iron	10700			P
7439-92-1	Lead	8.5			P
7439-95-4	Magnesium	28000			P
7439-96-5	Manganese	615		E	P
7439-97-6	Mercury	0.24			CV
7440-02-0	Nickel	3.8	B		P
7440-09-7	Potassium	16300			P
7782-49-2	Selenium	6.6		N	P
7440-22-4	Silver	1.3	U		P
7440-23-5	Sodium	161000			P
7440-28-0	Thallium	5.3	U		P
7440-62-2	Vanadium	6.5	B		P
7440-66-6	Zinc	31.9			P

Color Before: YELLOW

Clarity Before: CLOUDY

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

0061

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

MW-3 SOLUBLE IN L

Contract: 9905000416

Lab Code:

Case No.:

SAS No.:

SDG NO.: MW-1

Matrix (soil/water): WATER

Lab Sample ID: 296165

Level (low/med): LOW

Date Received: 05/27/99

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	278			P
7440-36-0	Antimony	7.7	U		P
7440-38-2	Arsenic	2.7	U		P
7440-39-3	Barium	203			P
7440-41-7	Beryllium	0.17	B		P
7440-43-9	Cadmium	0.63	U		P
7440-70-2	Calcium	208000			P
7440-47-3	Chromium	0.64	U		P
7440-48-4	Cobalt	1.2	U		P
7440-50-8	Copper	6.4	B		P
7439-89-6	Iron	2400			P
7439-92-1	Lead	2.6	U		P
7439-95-4	Magnesium	28500			P
7439-96-5	Manganese	631		E	P
7439-97-6	Mercury	0.05	U		CV
7440-02-0	Nickel	2.3	B		P
7440-09-7	Potassium	17500			P
7782-49-2	Selenium	5.6			P
7440-22-4	Silver	1.3	U		P
7440-23-5	Sodium	167000			P
7440-28-0	Thallium	5.3	U		P
7440-62-2	Vanadium	2.7	U		P
7440-66-6	Zinc	15.6	B		P

Color Before: BROWN

Clarity Before: CLOUDY

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

0062

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

MW-2

Contract: 9905000416

Lab Code:

Case No.:

SAS No.:

SDG NO.: MW-1

Matrix (soil/water): WATER

Lab Sample ID: 296141

Level (low/med): LOW

Date Received: 05/27/99

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7030		NE	P
7440-36-0	Antimony	8.4	B		P
7440-38-2	Arsenic	2.7	U		P
7440-39-3	Barium	440			P
7440-41-7	Beryllium	0.77	B		P
7440-43-9	Cadmium	1.0	B		P
7440-70-2	Calcium	171000			P
7440-47-3	Chromium	15.5			P
7440-48-4	Cobalt	5.7	B		P
7440-50-8	Copper	66.7			P
7439-89-6	Iron	11100			P
7439-92-1	Lead	796			P
7439-95-4	Magnesium	14600			P
7439-96-5	Manganese	194		E	P
7439-97-6	Mercury	2.7			CV
7440-02-0	Nickel	27.3	B		P
7440-09-7	Potassium	8190			P
7782-49-2	Selenium	10.8		N	P
7440-22-4	Silver	1.3	U		P
7440-23-5	Sodium	38000			P
7440-28-0	Thallium	5.3	U		P
7440-62-2	Vanadium	20.9	B		P
7440-66-6	Zinc	491			P

Color Before: BROWN

Clarity Before: CLOUDY

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

0063

TOTAL METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

MW-2 SOLUBLE IN L

Contract: 9905000416

Lab Code:

Case No.:

SAS No.:

SDG NO.: MW-1

Matrix (soil/water): WATER

Lab Sample ID: 296166

Level (low/med): LOW

Date Received: 05/27/99

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	715			P
7440-36-0	Antimony	7.7	U		P
7440-38-2	Arsenic	2.7	U		P
7440-39-3	Barium	183	B		P
7440-41-7	Beryllium	0.38	B		P
7440-43-9	Cadmium	0.63	U		P
7440-70-2	Calcium	175000			P
7440-47-3	Chromium	0.81	B		P
7440-48-4	Cobalt	1.4	B		P
7440-50-8	Copper	5.5	B		P
7439-89-6	Iron	782			P
7439-92-1	Lead	10.0			P
7439-95-4	Magnesium	12900			P
7439-96-5	Manganese	53.4		E	P
7439-97-6	Mercury	0.05	U		CV
7440-02-0	Nickel	10.9	B		P
7440-09-7	Potassium	8140			P
7782-49-2	Selenium	8.5			P
7440-22-4	Silver	1.3	U		P
7440-23-5	Sodium	41100			P
7440-28-0	Thallium	5.3	U		P
7440-62-2	Vanadium	2.7	U		P
7440-66-6	Zinc	210			P

Color Before: BROWN

Clarity Before: CLOUDY

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

0064

COLUMBIA ANALYTICAL SERVICES

Reported: 06/25/99

IT Corporation
Project Reference: PIERCE & STEVENS
Client Sample ID :MW-1

Date Sampled :05/26/99
Date Received:05/27/99

Order #:296131
Submission #:9905000416

Sample Matrix:WATER

ANALYTE	PQL	RESULT	UNITS	DATE ANALYZED	ANALYTICAL DILUTION
TOTAL CYANIDE	0.0100	0.0100 U	MG/L	06/04/99	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 06/25/99

IT Corporation
Project Reference: PIERCE & STEVENS
Client Sample ID :MW-5

Date Sampled :05/26/99
Date Received:05/27/99

Order #:296133
Submission #:9905000416

Sample Matrix:WATER

ANALYTE	PQL	RESULT	UNITS	DATE ANALYZED	ANALYTICAL DILUTION
TOTAL CYANIDE	0.0100	0.0100 U	MG/L	06/04/99	1.0

0066

COLUMBIA ANALYTICAL SERVICES

Reported: 06/25/99

IT Corporation
Project Reference: PIERCE & STEVENS
Client Sample ID :MW-4

Date Sampled :05/26/99
Date Received:05/27/99

Order #:296135
Submission #:9905000416

Sample Matrix:WATER

ANALYTE	PQL	RESULT	UNITS	DATE ANALYZED	ANALYTICAL DILUTION
TOTAL CYANIDE	0.0100	0.0100 U	MG/L	06/04/99	1.0

0067

COLUMBIA ANALYTICAL SERVICES

Reported: 06/25/99

IT Corporation
Project Reference: PIERCE & STEVENS
Client Sample ID :MW-3

Date Sampled :05/26/99
Date Received:05/27/99

Order #:296137
Submission #:9905000416

Sample Matrix:WATER

ANALYTE	PQL	RESULT	UNITS	DATE ANALYZED	ANALYTICAL DILUTION
TOTAL CYANIDE	0.0100	0.0100 U	MG/L	06/04/99	1.0

0068

COLUMBIA ANALYTICAL SERVICES

Reported: 06/25/99

IT Corporation
Project Reference: PIERCE & STEVENS
Client Sample ID : MW-2

Date Sampled : 05/26/99
Date Received: 05/27/99

Order #: 296141
Submission #: 9905000416

Sample Matrix: WATER

ANALYTE	PQL	RESULT	UNITS	DATE ANALYZED	ANALYTICAL DILUTION
TOTAL CYANIDE	0.0100	0.0100 U	MG/L	06/04/99	1.0

0069

2A
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: cas-roc Contract: it group
 Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1

	EPA SAMPLE NO.	SMC1 #	SMC2 #	SMC3 #	TOT OUT
01	VBK01	106	103	95	0
02	VBK01MS	105	102	94	0
03	MW-2	111	105	98	0
04	MW-2MS	110	104	97	0
05	MW-2MSD	110	104	98	0
06	MW-3	111	103	98	0
07	MW-4	111	105	98	0
08	VBK02	103	101	96	0
09	MW-1	108	101	98	0
10	MW-1DL	110	101	98	0
11	MW-5	110	102	100	0
12	COOLER BLAN	112	100	96	0
13	MW-5DL	108	102	98	0

QC LIMITS

SMC1	=	SURR1,1,2-Dicethane	(76-114)
SMC2	=	SURR,Toluene-d8	(88-110)
SMC3	=	SURR2,BFB	(86-115)

Column to be used to flag recovery values
 * Values outside of contract required QC limits
 D System Monitoring Compound diluted out

WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: Columbia Analytical Services Contract: IT
 Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1

	EPA SAMPLE NO.	S1 (2FP) #	S2 [PHL] #	S3 #	S4 #	S5 (NBZ) #	S6 (FBP) #	S7 #	S8 (TPH) #	TOT OUT
01	SBLK1	61	62	62	54	63	60	61	82	0
02	SBLK1MS	45	50	50	44	50	49	53	67	0
03	MW-1	59	64	63	53	64	60	77	60	0
04	MW-5	66	66	67	57	69	68	81	73	0
05	MW-4	70	70	74	64	78	66	85	66	0
06	MW-3	72	74	75	66	75	72	79	73	0
07	MW-2	34	39	46	47	52	51	56	51	0
08	MW-2MS	70	76	78	65	77	75	84	70	0
09	MW-2MSD	53	57	58	50	58	57	67	54	0
10	MW-1DL	51 10	56 11	56 11	48 10	56 11	55 11	62 12	52 10	0 8

QC LIMITS

S1	(2FP)	=	2-Fluorophenol	(21-110)
S2	[PHL]	=	Phenol-d6	(10-110)
S3		=	2-Chlorophenol-d4	(33-110)
S4		=	1,2-Dichlorobenzene-d4	(16-110)
S5	(NBZ)	=	Nitrobenzene-d5	(35-114)
S6	(FBP)	=	2-Fluorobiphenyl	(43-116)
S7		=	2,4,6-Tribromophenol	(10-123)
S8	(TPH)	=	Terphenyl-d14	(33-141)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate diluted out

0071

3A
WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: cas-roc Contract: it group
 Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1
 Matrix Spike - EPA Sample No MW-2

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
1,1-Dicethene	50	0.0	57	114	61 - 145
Benzene	50	0.0	55	110	76 - 127
Trichloroethene	50	0.0	49	98	71 - 120
Toluene	50	0.0	53	106	76 - 125
Chlorobenzene	50	0.0	52	104	75 - 130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	REC.
1,1-Dicethene	50	54	108	5	14	61 - 145
Benzene	50	53	106	4	11	76 - 127
Trichloroethene	50	47	94	4	14	71 - 120
Toluene	50	51	102	4	13	76 - 125
Chlorobenzene	50	51	102	2	13	75 - 130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits

COMMENTS:

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2MS

Lab Name: cas-roc Contract: it group
 Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1
 Matrix: (soil/water) WATER Lab Sample ID: 296141 1.0ms
 Sample wt/vol: 5.0 (g/ml) ML Lab File ID: Q2281.D
 Level: (low/med) LOW Date Received: 05/27/99
 % Moisture: not dec. _____ Date Analyzed: 06/03/99
 GC Column: HP624 ID: 0.20 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
74-87-3	Chloromethane		10	U
75-01-4	Vinyl Chloride		10	U
75-00-3	Chloroethane		10	U
74-83-9	Bromomethane		10	U
67-64-1	Acetone		10	U
75-35-4	1,1-Dicethene		57	
75-09-2	Methylene Chloride		10	U
75-15-0	Carbon Disulfide		10	U
75-34-3	1,1-Dicethane		5	J
78-93-3	2-Butanone		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
71-55-6	1,1,1-Trichloroethane		6	J
56-23-5	Carbon tetrachloride		10	U
71-43-2	Benzene		55	
79-01-6	Trichloroethene		49	
78-87-5	1,2-Dicpropane		10	U
75-27-4	Bromodichloromethane		10	U
10061-01-5	cis-1,3-Dichloropropene		10	U
10061-02-6	trans-1,3-Dichloropropene		10	U
79-00-5	1,1,2-Trichloroethane		10	U
124-48-1	Dibromochloromethane		10	U
75-25-2	Bromoform		10	U
108-10-1	4-Methyl-2-pentanone		10	U
108-88-3	Toluene		53	
127-18-4	Tetrachloroethene		10	U
591-78-6	2-Hexanone		10	U
108-90-7	Chlorobenzene		52	
100-41-4	Ethylbenzene		10	U
108383&106423	(m+p) Xylene		10	U
1330-20-7	o-Xylene		10	U
100-42-5	Styrene		10	U
79-34-5	1,1,2,2-Tetrachloroethane		10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2MSD

Lab Name: cas-roc Contract: it group

Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 296141 1.0msd

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: Q2282.D

Level: (low/med) LOW Date Received: 05/27/99

% Moisture: not dec. _____ Date Analyzed: 06/03/99

GC Column: HP624 ID: 0.20 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
74-83-9	Bromomethane	10	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dicethene	54	
75-09-2	Methylene Chloride	10	U
75-15-0	Carbon Disulfide	10	U
75-34-3	1,1-Dicethane	5	J
78-93-3	2-Butanone	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
71-55-6	1,1,1-Trichloroethane	6	J
56-23-5	Carbon tetrachloride	10	U
71-43-2	Benzene	53	
79-01-6	Trichloroethene	47	
78-87-5	1,2-Dicloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
124-48-1	Dibromochloromethane	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	51	
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
108-90-7	Chlorobenzene	51	
100-41-4	Ethylbenzene	10	U
108383&106423	(m+p) Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: cas-roc Contract: it groupLab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1Matrix Spike - EPA Sample No VBK01

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
1,1-Dicethylene	50	0.0	57	114	61 - 145
Benzene	50	0.0	53	106	76 - 127
Trichloroethene	50	0.0	50	100	71 - 120
Toluene	50	0.0	52	104	76 - 125
Chlorobenzene	50	0.0	52	104	75 - 130

COMMENTS:

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01MS

Lab Name: cas-roc Contract: it group
 Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1
 Matrix: (soil/water) WATER Lab Sample ID: vblkms
 Sample wt/vol: 5.0 (g/ml) ML Lab File ID: Q2267.D
 Level: (low/med) LOW Date Received: 05/27/99
 % Moisture: not dec. _____ Date Analyzed: 06/03/99
 GC Column: HP624 ID: 0.20 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

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

74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
74-83-9	Bromomethane	10	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	57	
75-09-2	Methylene Chloride	10	U
75-15-0	Carbon Disulfide	10	U
75-34-3	1,1-Dichloroethane	10	U
78-93-3	2-Butanone	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
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon tetrachloride	10	U
71-43-2	Benzene	53	
79-01-6	Trichloroethene	50	
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
124-48-1	Dibromochloromethane	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	52	
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
108-90-7	Chlorobenzene	52	
100-41-4	Ethylbenzene	10	U
108383&106423	(m+p) Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Columbia Analytical Services Contract: IT
 Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1
 Matrix Spike - EPA Sample No MW-2

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
Phenol	75	0.0	50	67	12 - 110
2-Chlorophenol	75	0.0	55	73	27 - 123
1,4-Dichlorobenzene	50	0.0	32	64	36 - 97
N-Nitroso-Di-n-propylamine	50	0.0	31	62	41 - 116
1,2,4-Trichlorobenzene	50	0.0	35	70	39 - 98
4-Chloro-3-methylphenol	75	0.0	53	71	23 - 97
Acenaphthene	50	0.0	36	72	46 - 118
2,4-Dinitrotoluene	50	0.0	41	82	24 - 96
4-Nitrophenol	75	0.0	67	89 *	10 - 80
Pentachlorophenol	75	0.0	64	85	9 - 103
Pyrene	50	0.0	34	68	26 - 127

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	REC.
Phenol	75	37	49	31	42	12 - 110
2-Chlorophenol	75	41	55	28	40	27 - 123
1,4-Dichlorobenzene	50	25	50	25	28	36 - 97
N-Nitroso-Di-n-propylamine	50	25	50	21	38	41 - 116
1,2,4-Trichlorobenzene	50	26	52	30 *	28	39 - 98
4-Chloro-3-methylphenol	75	43	57	22	42	23 - 97
Acenaphthene	50	28	56	25	31	46 - 118
2,4-Dinitrotoluene	50	33	66	22	38	24 - 96
4-Nitrophenol	75	55	73	20	50	10 - 80
Pentachlorophenol	75	42	56	41	50	9 - 103
Pyrene	50	27	54	23	31	26 - 127

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 1 out of 11 outside limits

Spike Recovery: 1 out of 22 outside limits

COMMENTS:

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2MS

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 296651

Sample wt/vol: 1000 (g/ml) ML Lab File ID: AB680.D

Level: (low/med) LOW Date Received: 5/27/99

% Moisture: _____ decanted:(Y/N) N Date Extracted: 5/28/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/1/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

108-95-2	Phenol	50	
111-44-4	bis(-2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	55	
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	32	
95-50-1	1,2-Dichlorobenzene	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
95-48-7	2-Methylphenol	10	U
621-24-7	N-Nitroso-Di-n-propylamine	31	
67-72-1	Hexachloroethane	10	U
106-44-5	4-Methylphenol	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(-2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	35	
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	53	
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
208-96-8	Acenaphthylene	10	U
131-11-3	Dimethyl Phthalate	10	U
606-20-2	2,6-Dinitrotoluene	10	U
83-32-9	Acenaphthene	36	
99-09-2	3-Nitroaniline	25	U
51-28-5	2,4-Dinitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	41	
100-02-7	4-Nitrophenol	67	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2MS

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 296651

Sample wt/vol: 1000 (g/ml) ML Lab File ID: AB680.D

Level: (low/med) LOW Date Received: 5/27/99

% Moisture: _____ decanted:(Y/N) N Date Extracted: 5/28/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/1/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

86-73-7	Fluorene	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
84-66-2	Diethylphthalate	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	64	
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	2	JB
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	34	
85-68-7	Butyl benzyl phthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-octyl phthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-2MSD

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 296652

Sample wt/vol: 1000 (g/ml) ML Lab File ID: AB681.D

Level: (low/med) LOW Date Received: 5/28/99

% Moisture: _____ decanted:(Y/N) N Date Extracted: 5/28/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/1/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

108-95-2	Phenol	37	
111-44-4	bis(-2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	41	
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	25	
95-50-1	1,2-Dichlorobenzene	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
95-48-7	2-Methylphenol	10	U
621-24-7	N-Nitroso-Di-n-propylamine	25	
67-72-1	Hexachloroethane	10	U
106-44-5	4-Methylphenol	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(-2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	26	
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	43	
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
208-96-8	Acenaphthylene	10	U
131-11-3	Dimethyl Phthalate	10	U
606-20-2	2,6-Dinitrotoluene	10	U
83-32-9	Acenaphthene	28	
99-09-2	3-Nitroaniline	25	U
51-28-5	2,4-Dinitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	33	
100-02-7	4-Nitrophenol	55	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2MSD

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 296652

Sample wt/vol: 1000 (g/ml) ML Lab File ID: AB681.D

Level: (low/med) LOW Date Received: 5/28/99

% Moisture: _____ decanted: (Y/N) N Date Extracted: 5/28/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/1/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

86-73-7	Fluorene	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
84-66-2	Diethylphthalate	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	42	
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	2	JB
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	27	
85-68-7	Butyl benzyl phthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-octyl phthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Columbia Analytical Services Contract: IT
 Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1
 Matrix Spike - EPA Sample No SBLK1

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
Phenol	75	0.0	32	43	12 - 110
2-Chlorophenol	75	0.0	35	47	27 - 123
1,4-Dichlorobenzene	50	0.0	21	42	36 - 97
N-Nitroso-Di-n-propylamine	50	0.0	21	42	41 - 116
1,2,4-Trichlorobenzene	50	0.0	23	46	39 - 98
4-Chloro-3-methylphenol	75	0.0	34	45	23 - 97
Acenaphthene	50	0.0	23	46	46 - 118
2,4-Dinitrotoluene	50	0.0	29	58	24 - 96
4-Nitrophenol	75	0.0	45	60	10 - 80
Pentachlorophenol	75	0.0	49	65	9 - 103
Pyrene	50	0.0	31	62	26 - 127

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: out of outside limits

Spike Recovery: 0 out of 11 outside limits

COMMENTS: .

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK1MS

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 296650

Sample wt/vol: 1000 (g/ml) ML Lab File ID: AB674.D

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

% Moisture: _____ decanted: (Y/N) N Date Extracted: 5/28/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/1/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

108-95-2	Phenol	32	
111-44-4	bis(-2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	35	
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	21	
95-50-1	1,2-Dichlorobenzene	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
95-48-7	2-Methylphenol	10	U
621-24-7	N-Nitroso-Di-n-propylamine	21	
67-72-1	Hexachloroethane	10	U
106-44-5	4-Methylphenol	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(-2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	23	
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	34	
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
208-96-8	Acenaphthylene	10	U
131-11-3	Dimethyl Phthalate	10	U
606-20-2	2,6-Dinitrotoluene	10	U
83-32-9	Acenaphthene	23	
99-09-2	3-Nitroaniline	25	U
51-28-5	2,4-Dinitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	29	
100-02-7	4-Nitrophenol	45	

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SBLK1MS

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 296650

Sample wt/vol: 1000 (g/ml) ML Lab File ID: AB674.D

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

% Moisture: _____ decanted:(Y/N) N Date Extracted: 5/28/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/1/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

86-73-7	Fluorene	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
84-66-2	Diethylphthalate	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	49	
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	2	JB
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	31	
85-68-7	Butyl benzyl phthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-octyl phthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

3E
WATER PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Columbia Analytical Services Contract: IT
 Lab Code: 10145 Case No.: 9905-416 SAS No.: _____ SDG No.: MW-1
 Matrix Spike - EPA Sample No.: MW-2

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
gamma-BHC (Lindane)	0.50	0.0	0.33	66	56 - 123
Heptachlor	0.50	0.0	0.47	94	40 - 131
Aldrin	0.50	0.0	0.46	92	40 - 120
Dieldrin	1.0	0.0	1.1	110	52 - 126
Endrin	1.0	0.0	1.3	130 *	56 - 121
4,4'-DDT	1.0	0.0	0.78	78	38 - 127

COMPOUND	SPIKE ADDED (ug/L)	MSD * CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	REC.
gamma-BHC (Lindane)	0.50	0.29	58	13	15	56 - 123
Heptachlor	0.50	0.41	82	14	20	40 - 131
Aldrin	0.50	0.39	78	16	22	40 - 120
Dieldrin	1.0	0.95	95	15	18	52 - 126
Endrin	1.0	1.1	110	17	21	56 - 121
4,4'-DDT	1.0	0.67	67	15	27	38 - 127

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 6 outside limits

Spike Recovery: 1 out of 12 outside limits

COMMENTS:

0086

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2MS

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 9905-416 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 296966

Sample wt/vol: 1000 (g/ml) ML Lab File ID: FS335.D

% Moisture: _____ decanted:(Y/N) N Date Received: 05/27/99

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 05/28/99

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 06/03/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

319-84-6	alpha-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.33	
76-44-8	Heptachlor	0.47	
309-00-2	Aldrin	0.46	
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
1024-57-3	Heptachlor Epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
5103-71-9	alpha-Chlordane	0.050	U
72-55-9	4,4'-DDE	0.10	
60-57-1	Dieldrin	1.1	
72-20-8	Endrin	1.3	
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
50-29-3	4,4'-DDT	0.78	
7421-36-3	Endrin Aldehyde	0.10	U
1031-07-8	Endosulfan Sulfate	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin Ketone	0.10	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
8001-35-2	Toxaphene	5.0	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2MSD

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 9905-416 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 296967

Sample wt/vol: 1000 (g/ml) ML Lab File ID: FS336.D

% Moisture: _____ decanted: (Y/N) N Date Received: 05/27/99

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 05/28/99

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 06/03/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

319-84-6	alpha-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.29	
76-44-8	Heptachlor	0.41	
309-00-2	Aldrin	0.39	
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
1024-57-3	Heptachlor Epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
5103-71-9	alpha-Chlordane	0.050	U
72-55-9	4,4'-DDE	0.085	J
60-57-1	Dieldrin	0.95	
72-20-8	Endrin	1.1	
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
50-29-3	4,4'-DDT	0.67	
7421-36-3	Endrin Aldehyde	0.10	U
1031-07-8	Endosulfan Sulfate	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin Ketone	0.10	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
8001-35-2	Toxaphene	5.0	U

WATER PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Columbia Analytical Services Contract: IT
 Lab Code: 10145 Case No.: 9905-416 SAS No.: SDG No.: MW-1
 Matrix Spike - EPA Sample No.: PBLK1

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
gamma-BHC (Lindane)	0.50	0.0	0.32	64	56 - 123
Heptachlor	0.50	0.0	0.46	92	40 - 131
Aldrin	0.50	0.0	0.49	98	40 - 120
Dieldrin	1.0	0.0	1.0	100	52 - 126
Endrin	1.0	0.0	1.2	120	56 - 121
4,4'-DDT	1.0	0.0	0.84	84	38 - 127

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 0 outside limits

Spike Recovery: 0 out of 6 outside limits

COMMENTS:

0089

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK1MS

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 9905-416 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 296965

Sample wt/vol: 1000 (g/ml) ML Lab File ID: FS329.D

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

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 05/28/99

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 06/03/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

319-84-6	alpha-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.32	
76-44-8	Heptachlor	0.46	
309-00-2	Aldrin	0.49	
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
1024-57-3	Heptachlor Epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
5103-71-9	alpha-Chlordane	0.050	U
72-55-9	4,4'-DDE	0.10	U
60-57-1	Dieldrin	1.0	
72-20-8	Endrin	1.2	
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
50-29-3	4,4'-DDT	0.84	
7421-36-3	Endrin Aldehyde	0.10	U
1031-07-8	Endosulfan Sulfate	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin Ketone	0.10	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
8001-35-2	Toxaphene	5.0	U

0090

3/90

TOTAL METALS

-6-

DUPLICATES

SAMPLE NO.

MW-2D

Contract: 9905000416

Lab Code:

Case No.:

SAS No.:

SDG NO.: MW-1

Matrix (soil/water): WATER

Level (low/med): LOW

Solids for Sample: 0.0

% Solids for Duplicate:

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		7027.3726		6268.6880		11.4		P
Antimony		8.3755	B	7.6700	U	200.0		P
Arsenic		2.7200	U	2.7200	U			P
Barium		440.1750		422.2999		4.1		P
Beryllium		0.7713	B	0.8498	B	9.7		P
Cadmium		1.0228	B	0.9990	B	2.4		P
Calcium		170892.0469		169450.0000		0.8		P
Chromium		15.5265		13.9019		11.0		P
Cobalt		5.7261	B	5.7350	B	0.2		P
Copper		66.6642		66.8692		0.3		P
Iron		11059.1123		10366.0449		6.5		P
Lead		796.2686		753.8372		5.5		P
Magnesium		14617.4150		14409.4111		1.4		P
Manganese		194.1409		189.3292		2.5		P
Mercury		2.6595		2.7615		3.8		CV
Nickel		27.3096	B	25.7078	B	6.0		P
Potassium		8191.0000		8316.0000		1.5		P
Selenium		10.8162		10.3772		4.1		P
Silver		1.3300	U	1.3300	U			P
Sodium		38030.0000		38970.0000		2.4		P
Thallium		5.3000	U	5.3000	U			P
Vanadium		20.9052	B	19.3851	B	7.5		P
Zinc		491.2296		486.1457		1.0		P

0091

TOTAL METALS

-6-

DUPLICATES

SAMPLE NO.

MW-2 SOLUBLE IN

Contract: 9905000416

Lab Code:

Case No.:

SAS No.:

SDG NO.: MW-1

Matrix (soil/water): WATER

Level (low/med): LOW

Solids for Sample: 0.0

% Solids for Duplicate:

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		714.7171		552.2567		25.6		P
Antimony		7.6700	U	7.6700	U			P
Arsenic		2.7200	U	2.7200	U			P
Barium		182.7344	B	183.7754	B	0.6		P
Beryllium		0.3773	B	0.3031	B	21.8		P
Cadmium		0.6280	U	0.6280	U			P
Calcium		174734.0313		176565.2969		1.0		P
Chromium		0.8071	B	0.6400	U	200.0		P
Cobalt		1.3628	B	1.2200	U	200.0		P
Copper		5.4644	B	5.1597	B	5.7		P
Iron		781.5799		688.2719		12.7		P
Lead		10.0266		8.6921		14.3		P
Magnesium		12877.3271		12937.8311		0.5		P
Manganese		53.4488		53.1768		0.5		P
Mercury		0.0537	U	0.0848	B	200.0		CV
Nickel		10.9108	B	10.6511	B	2.4		P
Potassium		8135.0000		8016.0000		1.5		P
Selenium		8.5309		5.5523		42.3		P
Silver		1.3300	U	1.3300	U			P
Sodium		41130.0000		41300.0000		0.4		P
Thallium		5.3000	U	5.3000	U			P
Vanadium		2.6500	U	2.6500	U			P
Zinc		210.4399		204.0512		3.1		P

0092

TOTAL METALS
-5A-
SPIKE SAMPLE RECOVERY

SAMPLE NO.

MW-2S

Contract: 9905000416

Lab Code:

Case No.:

SAS No.:

SDG NO.: MW-1

Matrix (soil/water): WATER

Level (low/med): LOW

Solids for Sample: 0.0

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

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Aluminum	75 - 125	7858.6963	7027.3726	2000.00	41.6	N	P
Antimony	75 - 125	486.6116	8.3755 B	500.00	95.6		P
Barium	75 - 125	2285.9346	440.1750	2000.00	92.3		P
Beryllium	75 - 125	45.8311	0.7713 B	50.00	90.1		P
Cadmium	75 - 125	49.3418	1.0228 B	50.00	96.6		P
Calcium		165906.7031	170892.0469	2000.00	-249.3		P
Chromium	75 - 125	195.8951	15.5265	200.00	90.2		P
Cobalt	75 - 125	466.5703	5.7261 B	500.00	92.2		P
Copper	75 - 125	285.0448	66.6642	250.00	87.4		P
Iron		11072.6055	11059.1123	1000.00	1.3		P
Lead	75 - 125	1341.0895	796.2686	500.00	109.0		P
Magnesium		15832.1592	14617.4150	2000.00	60.7		P
Manganese	75 - 125	628.5367	194.1409	500.00	86.9		P
Mercury	75 - 125	3.5998	2.6595	1.00	94.0		CV
Nickel	75 - 125	497.1905	27.3096 B	500.00	94.0		P
Potassium	75 - 125	26330.0000	8191.0000	20000.00	90.7		P
Selenium	75 - 125	17.9293	10.8162	10.00	71.1	N	P
Silver	75 - 125	44.9292	1.3300 U	50.00	89.9		P
Sodium	75 - 125	56030.0000	38030.0000	20000.00	90.0		P
Thallium	75 - 125	1910.5472	5.3000 U	2000.00	95.5		P
Vanadium	75 - 125	462.8884	20.9052 B	500.00	88.4		P
Zinc	75 - 125	935.2752	491.2296	500.00	88.8		P

Comments:

0093

TOTAL METALS
-5A-
SPIKE SAMPLE RECOVERY

SAMPLE NO.

MW-2S

Contract: 9905000416

Lab Code:

Case No.:

SAS No.:

SDG NO.: MW-1

Matrix (soil/water): WATER

Level (low/med): LOW

Solids for Sample: 0.0

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

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Arsenic	75 - 125	44.2991	2.7200 U	40.00	110.7		P

Comments:

0094

TOTAL METALS
-5A-
SPIKE SAMPLE RECOVERY

SAMPLE NO.

MW-2 SOLUBLE IN L

Contract: 9905000416

Lab Code:

Case No.:

SAS No.:

SDG NO.: MW-1

Matrix (soil/water): WATER

Level (low/med): LOW

Solids for Sample: 0.0

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum	75 - 125	2604.5544		714.7171		2000.00	94.5		P
Antimony	75 - 125	540.1461		7.6700	U	500.00	108.0		P
Barium	75 - 125	2243.3638		182.7344	B	2000.00	103.0		P
Beryllium	75 - 125	49.6093		0.3773	B	50.00	98.5		P
Cadmium	75 - 125	53.2135		0.6280	U	50.00	106.4		P
Calcium		176863.5313		174734.0313		2000.00	106.5		P
Chromium	75 - 125	200.4126		0.8071	B	200.00	99.8		P
Cobalt	75 - 125	502.4228		1.3628	B	500.00	100.2		P
Copper	75 - 125	247.3111		5.4644	B	250.00	96.7		P
Iron	75 - 125	1628.2009		781.5799		1000.00	84.7		P
Lead	75 - 125	491.2272		10.0266		500.00	96.2		P
Magnesium		14953.6094		12877.3271		2000.00	103.8		P
Manganese	75 - 125	548.7419		53.4488		500.00	99.1		P
Mercury	75 - 125	0.9794		0.0537	U	1.00	97.9		CV
Nickel	75 - 125	522.3657		10.9108	B	500.00	102.3		P
Potassium	75 - 125	28450.0000		8135.0000		20000.00	101.6		P
Selenium	75 - 125	19.8629		8.5309		10.00	113.3		P
Silver	75 - 125	49.5076		1.3300	U	50.00	99.0		P
Sodium	75 - 125	63130.0000		41130.0000		20000.00	110.0		P
Thallium	75 - 125	2128.5801		5.3000	U	2000.00	106.4		P
Vanadium	75 - 125	488.1728		2.6500	U	500.00	97.6		P
Zinc	75 - 125	727.7615		210.4399		500.00	103.5		P

Comments:

0095

TOTAL METALS
-5A-
SPIKE SAMPLE RECOVERY

SAMPLE NO.

MW-2 SOLUBLE IN L

Contract: 9905000416

Lab Code:

Case No.:

SAS No.:

SDG NO.: MW-1

Matrix (soil/water): WATER

Level (low/med): LOW

Solids for Sample: 0.0

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Arsenic	75 - 125	40.1721		2.7200	U	40.00	100.4		P

Comments:

0096

TOTAL METALS

-5B-

POST DIGEST SPIKE SAMPLE RECOVERY

SAMPLE NO.

MW-2A

Contract: 9905000416

Lab Code:

Case No.:

SAS No.:

SDG NO.: MW-1

Matrix (soil/water): WATER

Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum		9013.78		7027.37		2000.0	99.3		P
Antimony		511.01		8.38	B	500.0	100.5		P
Arsenic		41.84		2.72	U	40.0	104.6		P
Barium		2472.64		440.18		2000.0	101.6		P
Beryllium		50.36		0.77	B	50.0	99.2		P
Cadmium		54.13		1.02	B	50.0	106.2		P
Calcium		165372.55		170892.05		2000.0	-276.0		P
Chromium		215.05		15.53		200.0	99.8		P
Cobalt		511.21		5.73	B	500.0	101.1		P
Copper		309.35		66.66		250.0	97.1		P
Iron		11534.41		11059.11		1000.0	47.5		P
Lead		1260.51		796.27		500.0	92.8		P
Magnesium		15956.61		14617.42		2000.0	67.0		P
Manganese		667.21		194.14		500.0	94.6		P
Nickel		545.89		27.31	B	500.0	103.7		P
Potassium		29090.00		8191.00		20000.0	104.5		P
Selenium		24.98		10.82		10.0	141.6		P
Silver		47.52		1.33	U	50.0	95.0		P
Sodium		59140.00		38030.00		20000.0	105.6		P
Thallium		2124.81		5.30	U	2000.0	106.2		P
Vanadium		508.44		20.91	B	500.0	97.5		P
Zinc		1005.21		491.23		500.0	102.8		P

Comments:

0097

TOTAL METALS
-5B-
POST DIGEST SPIKE SAMPLE RECOVERY

SAMPLE NO.

SOLUBLE IN LAB FIL

Contract: 9905000416

Lab Code:

Case No.:

SAS No.:

SDG NO.: MW-1

Matrix (soil/water): WATER

Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum		3161.75		714.72		2000.0	122.4		P
Antimony		512.39		7.67	U	500.0	102.5		P
Arsenic		39.48		2.72	U	40.0	98.7		P
Barium		2323.49		182.73	B	2000.0	107.0		P
Beryllium		51.30		0.38	B	50.0	101.8		P
Cadmium		56.03		0.63	U	50.0	112.1		P
Calcium		174767.66		174734.03		2000.0	1.7		P
Chromium		209.09		0.81	B	200.0	104.1		P
Cobalt		522.26		1.36	B	500.0	104.2		P
Copper		257.53		5.46	B	250.0	100.8		P
Iron		1806.28		781.58		1000.0	102.5		P
Lead		512.34		10.03		500.0	100.5		P
Magnesium		14652.16		12877.33		2000.0	88.7		P
Manganese		565.22		53.45		500.0	102.4		P
Nickel		547.56		10.91	B	500.0	107.3		P
Potassium		28530.00		8135.00		20000.0	102.0		P
Selenium		23.78		8.53		10.0	152.5		P
Silver		49.35		1.33	U	50.0	98.7		P
Sodium		61510.00		41130.00		20000.0	101.9		P
Thallium		2274.12		5.30	U	2000.0	113.7		P
Vanadium		511.21		2.65	U	500.0	102.2		P
Zinc		776.50		210.44		500.0	113.2		P

Comments:

0098

COLUMBIA ANALYTICAL SERVICES

INORGANIC QUALITY CONTROL SUMMARY

Report Date : 06/25/99
CAS Order # : 296141 - MW-2
Client : **IT Corporation**
PIERCE & STEVENS
Reported Units: MG/L
Run # : 38817

PRECISION

ACCURACY

ORIGINAL	DUPLICATE	RPD	FOUND	ADDED	% REC.	LIMITS
0.0100 U	0.0100 U	NC	0.0879	0.100	88	70 - 130

TOTAL CYANIDE

0099

COLUMBIA ANALYTICAL SERVICES

INORGANIC BLANK SPIKE SUMMARY

CAS Submission #: 9905000416
Client: IT Corporation
PIERCE & STEVENS

BLANK SPIKES

BLANK	FOUND	ADDED	% REC	LIMITS	RUN	UNITS
0.0100 U	0.357	0.400	89	80 - 120	38817	MG/L

TOTAL CYANIDE

0100

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK01

Lab Name: cas-roc Contract: it group
 Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1
 Lab File ID: Q2266.D Lab Sample ID: vblk01
 Date Analyzed: 06/03/99 Time Analyzed: 08:54
 GC Column: HP624 ID: 0.2 (mm) Heated Purge: (Y/N) N
 Instrument ID: MS#6

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VBLK01MS	VBLKMS	Q2267.D	09:26
02	MW-2	296141 1.0	Q2280.D	16:56
03	MW-2MS	296141 1.0MS	Q2281.D	17:23
04	MW-2MSD	296141 1.0MSD	Q2282.D	17:49
05	MW-3	296137 1.0	Q2283.D	18:15
06	MW-4	296135 1.0	Q2284.D	18:42

COMMENTS

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01

Lab Name: cas-roc Contract: it group

Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: vblk01

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: Q2266.D

Level: (low/med) LOW Date Received: 05/27/99

% Moisture: not dec. _____ Date Analyzed: 06/03/99

GC Column: HP624 ID: 0.20 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
74-87-3	Chloromethane		10	U
75-01-4	Vinyl Chloride		10	U
75-00-3	Chloroethane		10	U
74-83-9	Bromomethane		10	U
67-64-1	Acetone		10	U
75-35-4	1,1-Dichloroethene		10	U
75-09-2	Methylene Chloride		10	U
75-15-0	Carbon Disulfide		10	U
75-34-3	1,1-Dichloroethane		10	U
78-93-3	2-Butanone		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
71-55-6	1,1,1-Trichloroethane		10	U
56-23-5	Carbon tetrachloride		10	U
71-43-2	Benzene		10	U
79-01-6	Trichloroethene		10	U
78-87-5	1,2-Dichloropropane		10	U
75-27-4	Bromodichloromethane		10	U
10061-01-5	cis-1,3-Dichloropropene		10	U
10061-02-6	trans-1,3-Dichloropropene		10	U
79-00-5	1,1,2-Trichloroethane		10	U
124-48-1	Dibromochloromethane		10	U
75-25-2	Bromoform		10	U
108-10-1	4-Methyl-2-pentanone		10	U
108-88-3	Toluene		10	U
127-18-4	Tetrachloroethene		10	U
591-78-6	2-Hexanone		10	U
108-90-7	Chlorobenzene		10	U
100-41-4	Ethylbenzene		10	U
108383&106423	(m+p) Xylene		10	U
1330-20-7	o-Xylene		10	U
100-42-5	Styrene		10	U
79-34-5	1,1,2,2-Tetrachloroethane		10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBK01

Lab Name: cas-roc Contract: it group
Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1
Matrix: (soil/water) WATER Lab Sample ID: vbK01
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: Q2266.D
Level: (low/med) LOW Date Received: 05/27/99
% Moisture: not dec. _____ Date Analyzed: 06/03/99
GC Column: HP624 ID: 0.20 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Number TICs found: 1

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown hydrocarbon	3.09	6	J

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK02

Lab Name: cas-roc Contract: it group
Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1
Lab File ID: Q2298.D Lab Sample ID: vb1k
Date Analyzed: 06/04/99 Time Analyzed: 09:18
GC Column: HP624 ID: 0.2 (mm) Heated Purge: (Y/N) N
Instrument ID: MS#6

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	MW-1	296131 500	Q2307.D	13:44
02	MW-1DL	296131 1000	Q2308.D	14:15
03	MW-5	296133 5.0	Q2309.D	14:42
04	COOLER BLANK	296149 1.0	Q2310.D	15:10
05	MW-5DL	296133 20	Q2311.D	15:39

COMMENTS

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK02

Lab Name: cas-roc Contract: it group

Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1

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

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: Q2298.D

Level: (low/med) LOW Date Received: 05/27/99

% Moisture: not dec. _____ Date Analyzed: 06/04/99

GC Column: HP624 ID: 0.20 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
74-83-9	Bromomethane	10	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	10	U
75-09-2	Methylene Chloride	10	U
75-15-0	Carbon Disulfide	10	U
75-34-3	1,1-Dichloroethane	10	U
78-93-3	2-Butanone	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
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon tetrachloride	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
124-48-1	Dibromochloromethane	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
108383&106423	(m+p) Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK02

Lab Name: cas-roc Contract: it group
Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1
Matrix: (soil/water) WATER Lab Sample ID: vblk
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: Q2298.D
Level: (low/med) LOW Date Received: 05/27/99
% Moisture: not dec. Date Analyzed: 06/04/99
GC Column: HP624 ID: 0.20 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

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

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
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8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: cas-roc Contract: it group
 Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1
 Lab File ID (Standard): Q2265.D Date Analyzed: 06/03/99
 Instrument ID: MS#6 Time Analyzed: 08:19
 GC Column: HP624 ID: 0.20 (mm) Heated Purge: (Y/N) N

		IS1		IS2		IS3	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD		961074	6.91	7040759	8.60	6422906	13.37
UPPER LIMIT		1922148	7.41	14081518	9.10	12845812	13.87
LOWER LIMIT		480537	6.41	3520380	8.10	3211453	12.87
EPA SAMPLE NO.							
01	VBLK01	820584	6.91	6120170	8.59	5467443	13.36
02	VBLK01MS	820397	6.91	6517174	8.59	5819074	13.36
03	MW-2	731299	6.92	5538464	8.60	4916253	13.37
04	MW-2MS	752536	6.91	5854791	8.60	5203623	13.36
05	MW-2MSD	742527	6.91	5746408	8.59	5096921	13.37
06	MW-3	756253	6.91	5837575	8.60	5172042	13.36
07	MW-4	716785	6.92	5530583	8.60	4899061	13.37

IS1 = Bromochloromethane
 IS2 = 1,4-Difluorobenzene
 IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.

* Values outside of contract required QC limits

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: cas-roc Contract: it group
 Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1
 Lab File ID (Standard): Q2297.D Date Analyzed: 06/04/99
 Instrument ID: MS#6 Time Analyzed: 08:51
 GC Column: HP624 ID: 0.20 (mm) Heated Purge: (Y/N) N

		IS1		IS2		IS3	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD		952633	6.92	6853502	8.60	6107757	13.37
UPPER LIMIT		1905266	7.42	13707004	9.10	12215514	13.87
LOWER LIMIT		476317	6.42	3426751	8.10	3053879	12.87
EPA SAMPLE NO.							
01	VBLK02	871572	6.92	6496584	8.60	5692658	13.37
02	MW-1	779157	6.91	5595116	8.59	5054850	13.36
03	MW-1DL	772656	6.91	5594405	8.59	5062574	13.36
04	MW-5	779968	6.91	5534470	8.59	4970565	13.36
05	COOLER BLANK	721475	6.91	5184466	8.59	4703038	13.37
06	MW-5DL	755868	6.91	5633442	8.59	5022438	13.36

IS1 = Bromochloromethane
 IS2 = 1,4-Difluorobenzene
 IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
 AREA LOWER LIMIT = - 50% of internal standard area
 RT UPPER LIMIT = +0.50 minutes of internal standard RT
 RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.

* Values outside of contract required QC limits

SEMIVOLATILE METHOD BLANK SUMMARY

SBLK1

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1

Lab File ID: AB673.D Lab Sample ID: 296649

Instrument ID: 5973-A Date Extracted: 5/28/99

Matrix: (soil/water) WATER Date Analyzed: 6/1/99

Level: (low/med) LOW Time Analyzed: 15:20

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	SBLK1MS	296650	AB674.D	6/1/99
02	MW-1	296131	AB675.D	6/1/99
03	MW-5	296133	AB676.D	6/1/99
04	MW-4	296135	AB677.D	6/1/99
05	MW-3	296137	AB678.D	6/1/99
06	MW-2	296141	AB679.D	6/1/99
07	MW-2MS	296651	AB680.D	6/1/99
08	MW-2MSD	296652	AB681.D	6/1/99
09	MW-1DL	296131 1/5	AB706.D	6/3/99

COMMENTS:

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SBLK1

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 296649

Sample wt/vol: 1000 (g/ml) ML Lab File ID: AB673.D

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

% Moisture: _____ decanted:(Y/N) N Date Extracted: 5/28/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/1/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/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
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
95-48-7	2-Methylphenol	10	U
621-24-7	N-Nitroso-Di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
106-44-5	4-Methylphenol	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(-2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
208-96-8	Acenaphthylene	10	U
131-11-3	Dimethyl Phthalate	10	U
606-20-2	2,6-Dinitrotoluene	10	U
83-32-9	Acenaphthene	10	U
99-09-2	3-Nitroaniline	25	U
51-28-5	2,4-Dinitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
100-02-7	4-Nitrophenol	25	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SBLK1

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 296649

Sample wt/vol: 1000 (g/ml) ML Lab File ID: AB673.D

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

% Moisture: _____ decanted:(Y/N) N Date Extracted: 5/28/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/1/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
86-73-7	Fluorene	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
84-66-2	Diethylphthalate	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	2	J
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butyl benzyl phthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-octyl phthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK1

Lab Name: Columbia Analytical Services Contract: IT
Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1
Matrix: (soil/water) WATER Lab Sample ID: 296649
Sample wt/vol: 1000 (g/ml) ML Lab File ID: AB673.D
Level: (low/med) LOW Date Received: _____
% Moisture: _____ decanted: (Y/N) N Date Extracted: 5/28/99
Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/1/99
Injection Volume: 2.0 (uL) Dilution Factor: 1.0
GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:

Number TICs found: 4(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 000822-67-3	2-Cyclohexen-1-ol	4.07	2	JNA
2. 000930-68-7	2-Cyclohexen-1-one	4.71	2	JNA
3. 000111-90-0	Ethanol, 2-(2-ethoxyethoxy)-	5.48	11	JN
4.	unknown	21.33	3	J

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Columbia Analytical Services Contract: IT
 Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1
 Lab File ID (Standard): AB669.D Date Analyzed: 6/1/99
 Instrument ID: 5973-A Time Analyzed: 12:41

		IS1(DCB)		IS2(NPT)		IS3(ANT)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD		80657	5.66	300314	7.55	152264	10.79
UPPER LIMIT		161314	6.16	600628	8.05	304528	11.29
LOWER LIMIT		40329	5.16	150157	7.05	76132	10.29
EPA SAMPLE NO.							
01	SBLK1	78467	5.66	291999	7.55	165987	10.79
02	SBLK1MS	66428	5.66	254869	7.55	143050	10.80
03	MW-1	61274	5.67	246844	7.55	132360	10.79
04	MW-5	72868	5.65	271852	7.54	140318	10.77
05	MW-4	57663	5.66	217453	7.55	130785	10.78
06	MW-3	63618	5.65	240474	7.54	136809	10.77
07	MW-2	66943	5.67	262549	7.56	147315	10.79
08	MW-2MS	76141	5.66	290076	7.55	161658	10.80
09	MW-2MSD	68336	5.65	258992	7.54	143049	10.78

IS1 (DCB) = d4-1,4-Dichlorobenzene
 IS2 (NPT) = d8-Naphthalene
 IS3 (ANT) = d10-Acenaphthene
 IS4 (PHN) = d10-Phenanthrene
 IS5 (CRY) = d12-Chrysene
 IS6 (PRY) = d12-Perylene

AREA UPPER LIMIT = +100% of internal standard area
 AREA LOWER LIMIT = - 50% of internal standard area
 RT UPPER LIMIT = +0.50 minutes of internal standard RT
 RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.

* Values outside of contract required QC limits

0113

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Columbia Analytical Services Contract: IT
 Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1
 Lab File ID (Standard): AB669.D Date Analyzed: 06/01/99
 Instrument ID: 5973-A Time Analyzed: 12:41

		IS4(PHN)		IS5(CRY)		IS6(PRY)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD		227670	13.88	190230	19.71	171634	23.21
UPPER LIMIT		455340	13.38	380460	19.21	343268	22.71
LOWER LIMIT		113835	14.38	95115	20.21	85817	23.71
EPA SAMPLE NO.							
01	SBLK1	260680	13.88	196245	19.71	184489	23.23
02	SBLK1MS	228537	13.88	182415	19.71	171017	23.21
03	MW-1	212093	13.88	172308	19.70	168087	23.21
04	MW-5	214440	13.86	179655*	19.68	179597	23.18
05	MW-4	220202	13.88	214923	19.73	219212	23.26
06	MW-3	217691	13.87	185989	19.69	187206	23.19
07	MW-2	230430	13.89	208221	19.71	214833	23.23
08	MW-2MS	253110	13.89	216795	19.71	213905	23.24
09	MW-2MSD	225132	13.87	196995	19.69	200469	23.20

IS1 (DCB) = d4-1,4-Dichlorobenzene
 IS2 (NPT) = d8-Naphthalene
 IS3 (ANT) = d10-Acenaphthene
 IS4 (PHN) = d10-Phenanthrene
 IS5 (CRY) = d12-Chrysene
 IS6 (PRY) = d12-Perylene

AREA UPPER LIMIT = +100% of internal standard area
 AREA LOWER LIMIT = - 50% of internal standard area
 RT UPPER LIMIT = +0.50 minutes of internal standard RT
 RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.

* Values outside of contract required QC limits

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Columbia Analytical Services Contract: IT
 Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1
 Lab File ID (Standard): AB702.D Date Analyzed: 6/3/99
 Instrument ID: 5973-A Time Analyzed: 11:45

	IS1(DCB)		IS2(NPT)		IS3(ANT)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	83120	5.47	297854	7.33	146235	10.52
UPPER LIMIT	166240	5.97	595708	7.83	292470	11.02
LOWER LIMIT	41560	4.97	148927	6.83	73118	10.02
EPA SAMPLE NO.						
01 MW-1DL	84346	5.47	327257	7.33	163957	10.53

IS1 (DCB) = d4-1,4-Dichlorobenzene
 IS2 (NPT) = d8-Naphthalene
 IS3 (ANT) = d10-Acenaphthene
 IS4 (PHN) = d10-Phenanthrene
 IS5 (CRY) = d12-Chrysene
 IS6 (PRY) = d12-Perylene

AREA UPPER LIMIT = +100% of internal standard area
 AREA LOWER LIMIT = - 50% of internal standard area
 RT UPPER LIMIT = +0.50 minutes of internal standard RT
 RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.

* Values outside of contract required QC limits

0115

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Columbia Analytical Services Contract: IT
 Lab Code: 10145 Case No.: 99-5-416 SAS No.: _____ SDG No.: MW-1
 Lab File ID (Standard): AB702.D Date Analyzed: 06/03/99
 Instrument ID: 5973-A Time Analyzed: 11:45

	IS4(PHN)		IS5(CRY)		IS6(PRY)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	218904	13.58	170677	19.38	146293	22.74
UPPER LIMIT	437808	13.08	341354	18.88	292586	22.24
LOWER LIMIT	109452	14.08	85339	19.88	73147	23.24
EPA SAMPLE NO.						
01 MW-1DL	240015	13.60	174509	19.39	149873	22.76

IS1 (DCB) = d4-1,4-Dichlorobenzene
 IS2 (NPT) = d8-Naphthalene
 IS3 (ANT) = d10-Acenaphthene
 IS4 (PHN) = d10-Phenanthrene
 IS5 (CRY) = d12-Chrysene
 IS6 (PRY) = d12-Perylene

AREA UPPER LIMIT = +100% of internal standard area
 AREA LOWER LIMIT = - 50% of internal standard area
 RT UPPER LIMIT = +0.50 minutes of internal standard RT
 RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
 * Values outside of contract required QC limits

4C
PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PBLK1

Lab Name: Columbia Analytical Services Contract: IT
 Lab Code: 10145 Case No.: 9905-416 SAS No.: _____ SDG No.: MW-1
 Lab Sample ID: 296964 Lab File ID: FS328.D
 Matrix: (soil/water) WATER Extraction: (SepF/Cont/Sonc) SEPF
 Sulfur Cleanup: (Y/N) N Date Extracted: 05/28/99
 Date Analyzed (1): 06/03/99 Date Analyzed (2): 06/03/99
 Time Analyzed (1): 0146 Time Analyzed (2): 0146
 Instrument ID (1): HP5890-F Instrument ID (2): HP5890-F
 GC Column (1): RTX-CLP ID: 0.32 (mm) GC Column (2): RTX-CLP II ID: 0.32 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	PBLK1MS	296965	06/03/99	06/03/99
02	MW-1	296131	06/03/99	06/03/99
03	MW-5	296133	06/03/99	06/03/99
04	MW-4	296135	06/03/99	06/03/99
05	MW-3	296137	06/03/99	06/03/99
06	MW-2	296141	06/03/99	06/03/99
07	MW-2MS	296966	06/03/99	06/03/99
08	MW-2MSD	296967	06/03/99	06/03/99

COMMENTS:

0117

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK1

Lab Name: Columbia Analytical Services Contract: IT

Lab Code: 10145 Case No.: 9905-416 SAS No.: _____ SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 296964

Sample wt/vol: 1000 (g/ml) ML Lab File ID: FS328.D

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

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 05/28/99

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 06/03/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

319-84-6	alpha-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
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
1024-57-3	Heptachlor Epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
5103-71-9	alpha-Chlordane	0.050	U
72-55-9	4,4'-DDE	0.10	U
60-57-1	Dieldrin	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
50-29-3	4,4'-DDT	0.10	U
7421-36-3	Endrin Aldehyde	0.10	U
1031-07-8	Endosulfan Sulfate	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin Ketone	0.10	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
8001-35-2	Toxaphene	5.0	U

TOTAL METALS

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BLANKS

Contract: 9905000416

Lab Code:

Case No.:

SAS No.:

SDG NO.: MW-1

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L)						Preparation Blank		M
			1	C	2	C	3	C	C		
Aluminum	42.1	U	42.1	U	42.1	U	42.1	U	42.100	U	P
Antimony	7.7	U	7.7	U	7.7	U	7.7	U	7.670	U	P
Arsenic	-8.1	B	2.7	U	2.7	U	-6.6	B	2.720	U	P
Barium	4.4	U	4.4	U	4.4	U	4.4	U	4.440	U	P
Beryllium	0.2	U	0.2	U	0.2	U	0.2	B	0.217	B	P
Cadmium	0.6	U	0.6	U	0.6	U	0.6	U	0.628	U	P
Calcium	56.8	U	56.8	U	56.8	U	56.8	U	307.906	B	P
Chromium	0.6	U	0.6	U	0.6	U	0.6	U	0.640	U	P
Cobalt	1.2	U	1.2	U	1.2	U	1.2	U	1.220	U	P
Copper	1.6	B	2.7	B	1.3	B	2.5	B	4.187	B	P
Iron	11.1	U	11.1	U	11.1	U	11.1	U	55.492	B	P
Lead	2.6	U	2.6	U	2.6	U	2.6	U	2.724	B	P
Magnesium	51.4	U	51.4	U	51.4	U	51.4	U	51.400	U	P
Manganese	0.9	U	-3.3	B	-3.0	B	-3.6	B	-3.110	B	P
Mercury	0.1	U	0.1	U	0.1	U	0.1	U	0.054	U	CV
Nickel	0.9	U	0.9	U	0.9	U	0.9	U	0.894	U	P
Potassium	431.0	U	431.0	U	431.0	U	431.0	U	431.000	U	P
Selenium	3.0	U	3.0	U	3.0	U	3.3	B	3.010	U	P
Silver	1.3	U	1.3	U	1.3	U	1.3	U	1.330	U	P
Sodium	222.0	U	222.0	U	222.0	U	222.0	U	222.000	U	P
Thallium	5.3	U	5.3	U	5.3	U	5.3	U	5.300	U	P
Vanadium	2.7	U	2.7	U	2.7	U	2.7	U	2.650	U	P
Zinc	1.7	U	1.7	U	1.7	U	1.7	U	8.898	B	P

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TOTAL METALS

-3-

BLANKS

Contract: 9905000416

Lab Code:

Case No.:

SAS No.:

SDG NO.: MW-1

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L)						Preparation Blank		C	M
			1	C	2	C	3	C				
Aluminum			-46.6	B	-52.5	B	-64.5	B				P
Antimony			7.7	U	7.7	U	7.7	U				P
Arsenic			-5.5	B	-5.4	B						P
Barium			4.4	U	4.4	U	4.4	U				P
Beryllium			0.5	B	0.6	B	0.7	B				P
Cadmium			0.6	U	0.6	U	0.6	U				P
Calcium			56.8	U	58.7	B	66.6	B				P
Chromium			0.6	U	0.6	U	0.6	U				P
Cobalt			1.2	U	1.2	U	1.2	U				P
Copper			2.1	B	2.2	B	1.8	B				P
Iron			12.8	B	11.1	U	11.1	U				P
Lead			2.6	U	2.6	U						P
Magnesium			51.4	U	51.4	U	51.4	U				P
Manganese			-3.3	B	-3.1	B	-3.2	B				P
Mercury			0.1	U	0.1	U	0.1	U				CV
Nickel			0.9	U	0.9	U	0.9	U				P
Potassium			431.0	U	-813.8	B						P
Selenium			3.0	U	3.0	U	3.0	U				P
Silver			1.3	U	1.3	U	1.3	U				P
Sodium			222.0	U	222.0	U						P
Thallium			5.3	U	5.3	U	5.3	U				P
Vanadium			2.7	U	2.7	U	2.7	U				P
Zinc			1.7	U	1.7	U	1.7	U				P

0120

TOTAL METALS

-3-

BLANKS

Contract: 9905000416

Lab Code:

Case No.:

SAS No.:

SDG NO.: MW-1

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L)						Preparation Blank	C	M
			1	C	2	C	3	C			
Aluminum			-55.6	B	-54.9	B					P
Antimony			7.7	U	7.7	U					P
Barium			4.4	U	4.4	U					P
Beryllium			0.6	B	0.6	B					P
Cadmium			0.6	U	0.6	U					P
Calcium			59.0	B	59.3	B					P
Chromium			0.6	U	0.6	U					P
Cobalt			1.2	U	1.2	U					P
Copper			1.2	B	1.8	B					P
Iron			11.1	U	11.9	B					P
Magnesium			51.4	U	51.4	U					P
Manganese			-3.3	B	-3.6	B					P
Mercury			0.1	U							CV
Nickel			-1.0	B	0.9	U					P
Selenium			3.0	U	3.7	B					P
Silver			1.3	U	1.3	U					P
Thallium			5.3	U	5.3	U					P
Vanadium			2.7	U	2.7	U					P
Zinc			1.7	U	1.7	U					P

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TOTAL METALS

-3-

BLANKS

Contract: 9905000416

Lab Code:

Case No.:

SAS No.:

SDG NO.: MW-1

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		M
		C	1	C	2	C	3	C		C	
Mercury	0.1	U	0.1	U	0.1	U			0.055	B	CV

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